NINJA BOOK

Financial Accounting & Reporting
2024

Income Statement and Statement of Comprehensive Income

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Income Statement and Statement of Comprehensive Income

Income Statement

I. Description
II. Format
III. Components of Income Statement

Statement of Comprehensive Income

I. Description
II. Format
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Income Statement

Income Statement

I. Description

The Income Statement, also known as the Profit and Loss Statement, is one of the key financial statements used by businesses, analysts, and investors to assess a company's financial performance over a specific period of time.

An Income Statement measures the financial performance of an enterprise from the aggregation of revenues, expenses, gains, and losses that are not items of other comprehensive income. In the Income Statement, income is classified as income from continuing operations and income from Discontinued Operations. Each of the two sections is reported separately with its related tax effect.

II. Format

The formats most commonly used are the Multiple-Step Income Statement and the Single-Step Income Statement. Income from continuing operations may be presented in a multiple-step format or a single-step format.

Single-Step Income Statement

The Single-Step Income Statement is a simplified version of the traditional Income Statement, and it's called "single-step" because it uses only one subtraction to arrive at the Net Income.

The Single-Step Income Statement is a method of income reporting where all revenues and gains are totaled together, and all expenses and losses are totaled together. The Net Income is then calculated by subtracting the total expenses and losses from the total revenues and gains. This format is considered simpler and more concise compared to the multi-step Income Statement.

Income Statement	
For the Year Ended December 31, Year 1	
Revenues & Income	XXX
Less: Expenses & Losses	XXX
Income (Loss) from Continuing Operations, Gross of Taxes	**XXX**
Less: Taxes (Current Taxes + Deferred Taxes)	(XXX)
Income (Loss) from Continuing Operations, Net of Taxes	**XXX**
Income (Loss) from Discontinued Operations, Net of Taxes	XXX
Net Income	**XXX**

Multiple-Step Income Statement

The Multiple-Step Income Statement, in contrast to the Single-Step Income Statement, provides a more detailed view of a company's financial performance by breaking down revenues and expenses into several categories.

The Multiple-Step Income Statement separates operating revenues and expenses from non-operating ones, and it further breaks down expenses into various categories. This format provides more insights into different aspects of a company's profitability and allows for a more in-depth analysis.

Income Statement	
For the Year Ended December 31, Year 1	
Net Revenues	XXX
Less: Cost of Goods Sold	(XXX)
Gross Profit	**XXX**
Less: Operating Expenses	(XXX)
Operating Profit	**XXX**
Add: Non-Operating Gains & Revenues	XXX
Less: Non-Operating Losses & Expenses	(XXX)
Income (Loss) from Continuing Operations, Gross of Taxes	**XXX**
Less: Taxes (Current Taxes + Deferred Taxes)	(XXX)
Income (Loss) from Continuing Operations, Net of Taxes	**XXX**
Income (Loss) from Discontinued Operations, Net of Taxes	XXX
Net Income	**XXX**

III. Components of Income Statement

Net Revenues

An entity should recognize revenue to show the transfer of the goods or services promised to customers. Revenue is recognized with the following steps:

Step 1: Identify the contract(s) with a customer.
Step 2: Identify the performance obligations in the contract.
Step 3: Determine the transaction price (i.e., amount).
Step 4: Allocate the transaction price to the performance obligations in the contract.
Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.

Net Revenues, also known as Net Sales, represent the total revenue generated by a company from its primary operations, minus any deductions such as returns, allowances, and discounts. It reflects the actual revenue that the company retains from selling its goods or services. Revenues are reported in the Income Statement as follows:

Sales	XXX
Less: Sales Return	(XXX)
Net Revenue	XXX

Cost of Goods Sold

Cost of Goods Sold represents the direct costs associated with producing or purchasing the goods that a company sells during a specific period. These costs may include materials, labor, and overhead related to the manufacturing process. The cost of Goods Sold is calculated as follows:

Opening Inventory	XXX
Add: Purchases	XXX
Less: Ending Inventory	(XXX)
Cost of Goods Sold	XXX

Gross Profit

Gross Profit is the difference between total sales revenue and the cost of goods sold (COGS). It represents the profit a company makes after deducting the costs directly associated with producing or purchasing the goods sold.

Revenues	XXX
Less: Cost of Goods Sold	(XXX)
Gross Profit	XXX

Operating Expenses

Operating Expenses are the costs associated with running the day-to-day operations of a business, excluding the Cost of Goods Sold (COGS). These expenses include Selling, General and Administrative Expenses (SG&A), Research and Development (R&D), and Depreciation and Amortization. Operating Expenses include the following:

Selling Expenses	Sales Staff Salaries & Commission, Freight Outward, Advertisements, Bad-Debt Expense & Depreciation on Sales Vehicles
General & Administrative Expense	Salaries, Rent, Insurance, Legal, Accounting Expenses & Depreciation on Office Equipment
Research & Development Expense	Research & Development Expense, Depreciation on Research & Development Equipment
Impairment Losses	Impairment on Tangible & Intangible Assets (For SEC Registrants)

Operating Profit

Operating Profit, also known as Operating Income or Earnings Before Interest and Taxes (EBIT), represents the profit a company earns from its core business operations. It is calculated by subtracting the Cost of Goods Sold (COGS) and Operating Expenses from the Total Revenue.

Gross Profit	XXX
Less: Operating Expenses	(XXX)
Operating Profit	XXX

Non-Operating Items

Non-operating items refer to revenues, gains, expenses, or losses that are not related to a company's core business operations. These items are typically infrequent or unusual and can include things like interest income, interest expense, gains or losses on the sale of assets, and income or losses from investments. Non-operating items include the following:

Investment Income & Expense	Interest Income, Interest Expense, Dividend Income, Unrealized Gain or Loss on Trading Securities, Gain or Loss on Foreign Currency Transactions.
Gain or Loss on Disposal	Gain or Loss on Sale of PPE & Intangible Assets
Unusual &/or Infrequent Items	Loss due to Natural disasters such as Fire, Hurricanes, etc.
Impairment Losses	Impairment on Tangible & Intangible Assets (For Non-SEC Registrants)

Income (Loss) from Continuing Operations, Gross of Taxes

Income (Loss) from Continuing Operations, Gross of Taxes, refers to the profit or loss generated from a company's ongoing core business activities, excluding any income or expenses from Discontinued Operations and before subtracting income taxes. It provides a clear picture of the profitability from the main business activities without considering temporary or non-recurring factors.

Operating Profit	XXX
Add/Less: Non-Operating Items	XXX/(XXX)
Income (Loss) from Continuing Operations, Gross of Taxes	XXX

Income Taxes

Income Tax Expense (often called Provision for Income Taxes) is deducted from the pre-tax income from continuing operations to arrive at post-tax income from continuing operations. Tax expense is determined by following the rules of the Internal Revenue Code.

Most revenues and expenses are reported on the tax return in the same period that they are reported on the Income Statement. However, tax laws often differ from the recognition and measurement requirements of financial accounting standards, and it is common to find differences between the amount of taxes expensed as per GAAP and taxes paid as per the Internal Revenue Service (IRS). This results in Deferred Tax Assets And Liabilities as follows:

Deferred Tax Liabilities
If:
Income Recognized Earlier in Accounts, i.e., Accounting Income > Tax Income, or
Deductions Allowed Earlier for Taxes, i.e., Accounting Expenses < Tax Expense
Then:
Income as per Accounts > Income as per Taxes
Tax Expense > Taxes Paid
Results in:
Deferred Tax Liabilities
Calculated as:
Temporary Difference x Future Enacted Tax Rate

Deferred Tax Assets
If:
Income Recognized Earlier for Taxes, i.e., Accounting Income < Tax Income, or
Deductions allowed Earlier for Accounts, i.e., Accounting Expenses > Tax Expense
Then:
Income as per Accounts < Income as per Taxes
Tax Expense < Taxes Paid
Results in:
Deferred Tax Assets
Calculated as:
Temporary Difference x Future Enacted Tax Rate

Income Tax expenses for the Income Statement would be calculated as follows:

Current Tax Liability	XXX
Add: Deferred Tax Liability	XXX
Less: Deferred Tax Asset	(XXX)
Income Tax Expense	XXX

Income (Loss) from Continuing Operations, Net of Taxes

Income (Loss) from Continuing Operations, Net of taxes, refers to the profit or loss generated from a company's ongoing core business activities after accounting for income taxes. It excludes any income or expenses from Discontinued Operations and reflects the company's profitability from its main business activities after considering tax obligations.

Income (Loss) from Continuing Operations, Gross of Taxes	XXX
Less: Income Tax Expense	(XXX)
Income (Loss) from Continuing Operations, Net of Taxes	XXX

Income (Loss) from Discontinued Operations, Net of Taxes

A component of an entity is a reportable or operating segment, reporting unit, or asset group whose operations and cash flows are clearly distinguished from the rest of the entity (operationally as well as for financial reporting purposes).

Classification

A component of an entity shall be reported in Discontinued Operation when any of the following occurs:

- The component or group of components meets the criteria to be classified as held for sale. Criteria to be classified for held for sale are as follows:
  - Management, having approval authority, commits to a plan to sell the entity to be sold.
  - The entity to be sold is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such entities to be sold.
  - An active program to locate a buyer or buyers and other actions required to complete the plan to sell the entity to be sold have been initiated.
  - The sale of the entity to be sold is probable, and the transfer of the entity to be sold is expected to qualify for recognition as a completed sale, generally within one year.
  - The entity to be sold is being actively marketed for sale at a price that is reasonable in relation to its current fair value.
  - Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.
- The component or group of components is disposed of by sale.
- The component or group of components is disposed of other than by sale (for example, by abandonment or in a distribution to owners in a spinoff)

Presentation

- **Income Statement:** In the Income Statement, the results of Discontinued Operations, after adjustment for applicable income taxes (benefit), are reported separately. This separation ensures that readers can distinguish between the results of continuing operations and those that are discontinued.
  - **Loss from Discontinued Operations:** If there's a loss, it offsets the income from other operating segments, resulting in a tax benefit.
  - **Gain from Discontinued Operations:** Conversely, a gain will result in an income tax expense.

- **Balance Sheet:** In the Balance Sheet, or the Statement of Financial Position, the assets and liabilities of the Discontinued Operation are presented separately in the asset and liability sections:
  - **Assets and Liabilities**: These are not offset and presented as a single amount but are shown separately to provide a clear picture of what is specifically related to the Discontinued Operation.
  - **Valuation**: The component related to the Discontinued Operation is valued at the current fair value less the cost to sell.

  This presentation ensures that stakeholders can easily identify the assets and liabilities related to the Discontinued Operation and understand their impact on the company's overall financial position.

Template to Calculate Income (Loss) from Discontinued Operations, Net of Taxes

Gain or Loss from Operations	XXX/(XXX)
Impairment Loss [CV – NRV]	(XXX)
Gain or Loss on Disposal [Proceeds – CV]	XXX/(XXX)
Income from Discontinued Operations, Gross of Tax	**XXX/(XXX)**
Add/Less: Tax Effects	XXX/(XXX)
Income from Discontinued Operations, Net of Tax	**XXX/(XXX)**

Example

An operating segment is classified as held-for-sale on November 1, year 1. The following information is available.

- The net book value of the operating segment on November 1, year 1 is $2,000,000
- The fair value of the operating segment on December 1, year 1 is $1,900,000
- The operating segment is finally disposed of on October 1, year 2 for $2,400,000
- The operating loss per month of operation is $100,000
- The tax rate is 30%

Calculate income or loss from Discontinued Operations for year 1 and year 2.

Solution

The income or loss from Discontinued Operations for year 1:

Loss from Operations ($100,000 x 2 Months)	($200,000)
Impairment Loss (CV – NRV) ($2,000,000 - $1,900,000)	($100,000)
Loss from Discontinued Operations, Gross of Tax	($300,000)
Add: Income Tax Benefit (30% x $300,000)	$90,000
Income from Discontinued Operations, Net of Tax	**($210,000)**

The income or loss from Discontinued Operations for year 2:

Loss from Operations ($100,000 x 9 Months)	($900,000)
Gain on Disposal (Proceeds – CV) ($2,400,000 - $1,900,000)	$500,000
Loss from Discontinued Operations, Gross of Tax	($400,000)
Add: Income Tax Benefit (30% x $400,000)	$120,000
Income from Discontinued Operations, Net of Tax	**($280,000)**

Net Income

Net Income, also known as Net Profit or the "bottom line," represents the total profit a company earns after subtracting all expenses, including cost of goods sold (COGS), operating expenses, interest, taxes, and other non-operating items. It's the amount that remains after all obligations have been met.

Income (Loss) from Continuing Operations, Net of Taxes	XXX
Income (Loss) from Discontinued Operations, Net of Taxes	XXX
Net Income	**XXX**

Statement of Comprehensive Income

Statement of Comprehensive Income

I. Description

The Statement of Other Comprehensive Income (OCI) is a financial statement that displays items that are not included in the Net Income but affect the equity section of the Balance Sheet. It helps investors and analysts understand the total comprehensive income, which includes all changes in equity other than those resulting from transactions with shareholders (like dividends and share repurchases).

The Statement of Other Comprehensive Income (OCI) includes certain unrealized revenues, expenses, gains, and losses that are excluded from Net Income. These unrealized gains and losses are charged to OCI and parked in the Accumulated Other Comprehensive Income (AOCI) section until the underlying transaction is settled. Once these transactions are settled, the gain or loss shifts out of AOCI to the Income Statement, so that it is part of Net Income from where it flows to Retained Earnings.

II. Format

The Statement of Comprehensive Income provides a more extensive view of a company's financial performance by including both Net Income and other comprehensive income.

Statement of Comprehensive Income	
For the Year Ended December 31, Year 1	
Net Income	**XXX**
Other Comprehensive Income	
Foreign Currency Translation Gain/Loss	XXX
Pension Adjustments	XXX
Unrealized Gain/Loss on Available-for-Sale Debt Securities	XXX
Gains/Loss on Derivatives designated as Cash Flow Hedges	XXX
Comprehensive Income	**XXX**

III. Components of Statement of Comprehensive Income

Included in the Statement of Other Comprehensive Income are Foreign Currency Translation Gains or Losses, Pension-Related Adjustments, Unrealized Gains or Losses on Available-for-Sale Securities, and Gains or Losses on Cash Flow Hedge.

Foreign Currency Translation Gain or Loss

- **Explanation:** Foreign Currency Translation Gains or Losses occur when a company translates the financial statements of its Foreign Subsidiaries into its Reporting Currency. This translation is necessary for Consolidated Financial Reporting. The gains or losses arise from fluctuations in exchange rates between the Foreign Subsidiary's Functional Currency and the Parent Company's Reporting Currency.

- **Why Recorded in OCI:** These gains or losses are recorded in the Other Comprehensive Income (OCI) section and are not included in Net Income. They remain in OCI until the foreign investment is sold or otherwise disposed of, at which point they are reclassified to Net Income. This treatment ensures that the Income Statement reflects only the realized effects of Foreign Currency Translation, providing a more accurate view of the company's core operating performance.

Pension Adjustments

- **Explanation:** Pension Adjustments relate to a company's Defined Benefit Pension plan and include items such as the Excess over Expected Gain or Loss, Net Prior Service Cost, and Net Transition Asset or Obligation.

- **Why Recorded in OCI:** These adjustments can be volatile and are therefore charged to OCI, where they are accumulated until they are periodically amortized to the Income Statement as part of the net periodic benefit cost. This treatment helps to smooth out the volatility in Pension Costs, providing a more consistent view of the company's financial performance over time.

Unrealized Gains and Losses on Available-for-Sale (AFS) Debt Securities

- **Explanation:** Unrealized Gains and Losses on Available-For-Sale (AFS) Debt Securities arise from changes in the fair value of these investments, reflecting fluctuations in market prices.

- **Why Recorded in OCI:** Since these Gains and Losses are Unrealized (i.e., the securities have not been sold), they are included in OCI rather than Net Income. This treatment ensures that the Income Statement reflects only realized gains and losses, providing a more accurate view of the company's investment performance. When the AFS debt security is eventually sold, the accumulated unrealized gains or losses are reclassified from OCI to Net Income, reflecting the actual realized gain or loss on the investment.

Gains and Losses on Derivative Instruments that are Designated as Cash Flow Hedges

- **Explanation:** Gains and losses on derivative instruments that are designated as cash flow hedges represent changes in the fair value of derivatives used to hedge exposure to variability in cash flows, such as interest rate risk or commodity price risk.

- **Why Recorded in OCI:** The effective and ineffective portion of gains and losses on cash flow derivative instruments is reported as a component of OCI and reclassified into earnings when the cash is realized on hedged transactions. This treatment aligns the recognition of gains and losses with the timing of the underlying hedged items, providing a more consistent and accurate view of the company's financial performance related to its hedging activities.

IV. Reclassification

Reclassification Adjustments are used to move specific gains and losses from AOCI to Retained Earnings when those gains and losses are realized. This process ensures that the financial statements accurately reflect the company's financial position and performance.

Reclassification adjustments must be reported within OCI on the face of the statement that reports OCI. This reporting requirement ensures transparency and allows users of the financial statements to understand the nature and effect of these adjustments.

V. Presentation

Other Comprehensive Income can be presented as a Single Combined "Statement of Income and Comprehensive Income," or in Two Separate but Consecutive Condensed "Statement of Income" and "Statement of Comprehensive Income."

Combined Statement of Income and Comprehensive Income

This approach combines the Income Statement (or Statement of Profit or Loss) and the Statement of Comprehensive Income into a single statement. It starts with the traditional Income Statement items, showing revenues, expenses, and net income, followed by the items of OCI, and concludes with the total comprehensive income.

By presenting everything in one statement, it provides a continuous and cohesive view of the company's financial performance, from core operations to other comprehensive items.

Income Statement & Statement of Comprehensive Income	
For the Year Ended December 31, Year 1	
Net Revenues	XXX
Less: Cost of Goods Sold	(XXX)
Gross Profit	**XXX**
Less: Operating Expenses	(XXX)
Operating Profit	**XXX**
Add: Non-Operating Gains & Revenues	XXX
Less: Non-Operating Losses & Expenses	(XXX)
Income (Loss) from Continuing Operations, gross of taxes	**XXX**
Less: Taxes (Current Taxes + Deferred Taxes)	(XXX)
Income (Loss) from Continuing Operations, net of taxes	**XXX**
Income (Loss) from Discontinued Operations, net of taxes	XXX
Net Income	**XXX**
Other Comprehensive Income	
Foreign Currency Translation Gain/Loss	XXX
Pension Adjustments	XXX
Unrealized Gain/Loss on Available-for-Sale Debt Securities	XXX
Gains/Loss on Derivatives designated as Cash Flow Hedges	XXX
Revaluation Surplus (IFRS)	XXX
Comprehensive Income	**XXX**

Separate Statement of Income and Statement of Comprehensive Income

This approach presents the Income Statement and the Statement of Comprehensive Income as two separate but consecutive statements. The first statement shows the traditional Income Statement items, leading to Net Income. The second statement begins with Net Income and then lists the items of OCI, concluding with the Total Comprehensive Income.

This separation can provide clarity by distinctly isolating the core operating results from other comprehensive items, which may be preferred by some users of the financial statements.

Income Statement	
For the Year Ended December 31, Year 1	
Net Revenues	XXX
Less: Cost of Goods Sold	(XXX)
Gross Profit	**XXX**
Less: Operating Expenses	(XXX)
Operating Profit	**XXX**
Add: Non-Operating Gains & Revenues	XXX
Less: Non-Operating Losses & Expenses	(XXX)
Income (Loss) from Continuing Operations, gross of taxes	**XXX**
Less: Taxes (Current Taxes + Deferred Taxes)	(XXX)
Income (Loss) from Continuing Operations, net of taxes	**XXX**
Income (Loss) from Discontinued Operations, net of taxes	XXX
Net Income	**XXX**

Statement of Comprehensive Income	
For the Year Ended December 31, Year 1	
Net Income	**XXX**
Other Comprehensive Income	
Foreign Currency Translation Gain/Loss	XXX
Pension Adjustments	XXX
Unrealized Gain/Loss on Available-for-Sale Debt Securities	XXX
Gains/Loss on Derivatives designated as Cash Flow Hedges	XXX
Revaluation Surplus (IFRS)	XXX
Comprehensive Income	**XXX**

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Financial Accounting & Reporting 2024

Income Statement & Statement of Comprehensive Income

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Income Statement

Description

- Income Statement measures the financial performance of an enterprise from the aggregation of revenues, expenses, gains, and losses that are not items of other comprehensive income.

Format

- Single-Step Income Statement
    - Single-Step Income Statement is a simplified version of the traditional Income Statement, and it's called "Single-Step" because it uses only one subtraction to arrive at the Net Income.

Income Statement	
For the Year Ended December 31, Year 1	
Revenues & Income	XXX
Less: Expenses & Losses	XXX
Income (Loss) from Continuing Operations, Gross of Taxes	**XXX**
Less: Taxes (Current Taxes + Deferred Taxes)	(XXX)
Income (Loss) from Continuing Operations, Net of Taxes	**XXX**
Income (Loss) from Discontinued Operations, Net of Taxes	XXX
Net Income	**XXX**

- Multiple-Step Income Statement
    - Multiple-Step Income Statement, in contrast to the Single-Step Income Statement, provides a more detailed view of a company's financial performance by breaking down revenues and expenses into several categories.

Income Statement	
For the Year Ended December 31, Year 1	
Net Revenues	XXX
Less: Cost of Goods Sold	(XXX)
Gross Profit	**XXX**
Less: Operating Expenses	(XXX)
Operating Profit	**XXX**
Add: Non-Operating Gains & Revenues	XXX
Less: Non-Operating Losses & Expenses	(XXX)
Income (Loss) from Continuing Operations, Gross of Taxes	**XXX**
Less: Taxes (Current Taxes + Deferred Taxes)	(XXX)
Income (Loss) from Continuing Operations, Net of Taxes	**XXX**
Income (Loss) from Discontinued Operations, Net of Taxes	XXX
Net Income	**XXX**

Components of an Income Statement

- Net Revenue
    - Revenue Recognition Steps:
        - Step 1: Identify the contract(s) with a customer.
        - Step 2: Identify the performance obligations in the contract.
        - Step 3: Determine the transaction price (i.e., amount).
        - Step 4: Allocate the transaction price to the performance obligations in the contract.
        - Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.
    - Revenue Recognition Calculation

Sales	XXX
Less: Sales Return	(XXX)
Net Revenue	XXX

- Cost of Goods Sold

Opening Inventory	XXX
Add: Purchases	XXX
Less: Ending Inventory	(XXX)
Cost of Goods Sold	XXX

- Gross Profit

Revenues	XXX
Less: Cost of Goods Sold	(XXX)
Gross Profit	XXX

- Operating Expenses

Selling Expenses	Sales Staff Salaries & Commission, Freight Outward, Advertisements, Bad-Debt Expense & Depreciation on Sales Vehicles
General & Administrative Expense	Salaries, Rent, Insurance, Legal, Accounting Expenses & Depreciation on Office Equipment
Research & Development Expense	Research & Development Expense, Depreciation on Research & Development Equipment
Impairment Losses	Impairment on Tangible & Intangible Assets (For SEC Registrants)

- Operating Profit

Gross Profit	XXX
Less: Operating Expenses	(XXX)
Operating Profit	XXX

- Non-Operating Items

Investment Income & Expense	Interest Income, Interest Expense, Dividend Income, Unrealized Gain or Loss on Trading Securities, Gain or Loss on Foreign Currency Transactions.
Gain or Loss on Disposal	Gain or Loss on Sale of PPE & Intangible Assets
Unusual &/or Infrequent Items	Loss due to Natural disasters such as Fire, Hurricanes, etc.
Impairment Losses	Impairment on Tangible & Intangible Assets (For Non-SEC Registrants)

- Income (Loss) from Continuing Operations, Gross of Taxes

Operating Profit	XXX
Add/Less: Non-Operating Items	XXX/(XXX)
Income (Loss) from Continuing Operations, Gross of Taxes	XXX

- Income Taxes

Current Tax Liability	XXX
Add: Deferred Tax Liability	XXX
Less: Deferred Tax Asset	(XXX)
Income Tax Expense	XXX

- Income (Loss) from Continuing Operations, Net of Taxes

Income (Loss) from Continuing Operations, Gross of Taxes	XXX
Less: Income Tax Expense	(XXX)
Income (Loss) from Continuing Operations, Net of Taxes	XXX

- Income (Loss) from Discontinued Operations, Net of Taxes

Gain or Loss from Operations	XXX/(XXX)
Impairment Loss [CV – NRV]	(XXX)
Gain or Loss on Disposal [Proceeds – CV]	XXX/(XXX)
Income from Discontinued Operations, Gross of Tax	**XXX/(XXX)**
Add/Less: Tax Effects	XXX/(XXX)
Income from Discontinued Operations, Net of Tax	**XXX/(XXX)**

- Net Income

Income (Loss) from Continuing Operations, Net of Taxes	XXX
Income (Loss) from Discontinued Operations, Net of Taxes	XXX
Net Income	**XXX**

Statement of Comprehensive Income

Description

- Statement of Other Comprehensive Income (OCI) is a financial statement that displays items that are not included in the Net Income but affect the equity section of the Balance Sheet.
- Statement of Other Comprehensive Income (OCI) includes certain unrealized revenues, expenses, gains, and losses that are excluded from Net Income.

Format

Statement of Comprehensive Income	
For the Year Ended December 31, Year 1	
Net Income	**XXX**
Other Comprehensive Income	
Foreign Currency Translation Gain/Loss	XXX
Pension Adjustments	XXX
Unrealized Gain/Loss on Available-for-Sale Debt Securities	XXX
Gains/Loss on Derivatives designated as Cash Flow Hedges	XXX
Comprehensive Income	**XXX**

Components of Statement of Comprehensive Income

- Foreign Currency Translation Gain or Loss
- Pension Adjustments
- Unrealized Gains and Losses on Available-for-Sale (AFS) Debt Securities
- Gains and Losses on Derivative Instruments that are Designated as Cash Flow Hedges

Reclassification

- Reclassification Adjustments move specific gains and losses from AOCI to Retained Earnings when those gains and losses are realized.

Presentation

- Combined Statement of Income and Comprehensive Income
    - Income Statement (or Statement of Profit or Loss) and the Statement of Comprehensive Income into a single statement
- Separate Statement of Income and Statement of Comprehensive Income
    - Income Statement and the Statement of Comprehensive Income as two separate but consecutive statements.

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Engagement Acceptance

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Engagement Acceptance

Audit Stages

Pre-Engagement Acceptance Activities & Engagement Letter

I. Pre-Engagement Acceptance Activities
II. Engagement Letter
III. Continuing Engagements
IV. Client Request for a Change in the Terms of Engagement

Audit Stages

Audit Stages

Pre-Engagement Acceptance Activities	Before taking on a new client or continuing with an existing one, the audit firm must assess the client's integrity and the associated risks. This could involve background checks, evaluation of financial stability, and assessment of potential legal or reputation risks.
Engagement Letter	Once a client is accepted, the auditor and client sign an engagement letter, which is a formal agreement specifying the scope of the audit, responsibilities, timelines, and fees.
Audit Strategy & Planning	Audit Planning includes: • **Risk Assessment:** Auditors identify risks that might prevent financial statements from being fairly presented. • **Audit Strategy and Plan Development:** Based on the Risk Assessment, auditors devise a strategy detailing how the audit will be conducted. This includes selecting team members with the right expertise and determining the nature, timing, and extent of audit procedures. • **Materiality Determination:** Auditors decide on a threshold (materiality level) for misstatements. Misstatements below this threshold are not considered significant to financial statement users.
Internal Control Evaluation	Internal Control Evaluation includes: • **Understanding and Documenting Internal Controls:** Auditors gain an understanding of the client's internal control system and document this understanding, often through flowcharts or narratives. • **Control Testing:** Auditors test the operating effectiveness of controls. If controls are strong, auditors might reduce the substantive testing.

Substantive Procedures	Substantive Procedures includes: • **Analytical Procedures:** Analyzing plausible relationships among financial and non-financial data. • **Tests of Details:** Examining records or documents, whether internal or external, to support the amounts and disclosures in the financial statements.
Audit Completion	Audit Conclusion includes: • **Evaluation:** Evaluating misstatements identified during the audit and considering whether they individually or in aggregate affect the truthfulness of the financial statements. • **Forming an Opinion:** Forming an Opinion is a critical phase in the audit process where auditors analyze the collected audit evidence to form an Opinion on the Financial Statements.
Report Preparation and Communication	• **Drafting the Audit Report:** Based on the audit evidence gathered, the Auditor drafts the Audit report. • **Communication with Those Charged with Governance:** Discussing Significant Findings, Observations, and the Draft Report.
Post-Audit Responsibilities & Audit Quality Control	Post-Audit Responsibilities include: • **Archiving and Documentation Retention:** The auditor retains documentation for a specified period as per regulations. • **Post-Audit Meeting with Client:** Discussing the audit process, findings, and potential improvements for the next year. • **Audit Quality Control:** Some audits, especially for public companies, undergo a quality review by a separate team within the audit firm or by external reviewers.

Pre-Engagement Acceptance Activities & Engagement Letter

Pre-Engagement Acceptance Activities & Engagement Letter

I. Pre-Engagement Acceptance Activities

Pre-engagement acceptance activities are crucial steps that auditors undertake before formally agreeing to perform an audit for a potential client. These activities are necessary to ensure that the engagement will be carried

The following are key Pre-Engagement Acceptance Activities, an auditor would complete before deciding to accept a client:

Receive an Appointment

The beginning of any Auditing Relationship is the appointment of the auditor by the relevant authority. This ensures that the auditor has the necessary permissions and mandate to carry out their tasks.

Appointing Authority

An auditor is appointed by either an Issuer and Non-Issuer:

- **Issuer:** For Publicly Traded Companies (often referred to as issuers), the appointment of external auditors is typically done by the Audit Committee.

- **Non-Issuer:** For Private Companies or organizations that do not issue publicly traded securities, the appointment of auditors usually rests with "Those Charged with Governance," which might include the Board of Directors or similar governing bodies.

Timing of Appointment

The timing of an auditor's appointment is crucial to ensure that the auditor has enough time to conduct a thorough and comprehensive audit without any limitations to the scope of their work.

Ideally an auditor should be appointed before year-end. Appointing an auditor well before the year-end allows them to get involved in the year-end close process, understand the company's operations, and conduct preliminary testing. This can be beneficial in understanding any unique risks or challenges that might need to be addressed during the audit.

If an auditor is appointed too late, particularly after the year-end, they might face challenges in accessing certain information, understanding transactions that took place earlier in the year, or ensuring appropriate testing of controls.

Assessment of Auditor's Capability

Before engaging in an audit, it's imperative for the auditing firm to assess whether they are capable of performing the audit in accordance with professional standards.

The auditor should assess the following:

- **Independence and Ethical Compliance:** An auditor must ensure they are independent and adhere to all relevant ethical rules of conduct. An auditor should:
  - Identify relationships or situations that could compromise independence.
  - Evaluate the significance of threats, considering both qualitative and quantitative factors.
  - Apply safeguards to eliminate the threats or reduce them to an acceptable level.
  - Regularly review and document their independence status, particularly when there are changes in the audit team, client, or scope of services

- **Resource Assessment:** The auditor should ascertain they have the necessary time and resources to finish the audit within the stipulated deadline. The auditor should:
  - Assess the size and complexity of the client's operations.
  - Estimate the number of hours required for various audit tasks.
  - Identify any specialized skills or knowledge needed for the audit.
  - Ensure that technological tools, such as auditing software, are up-to-date and relevant for the client's operations.

- **Personnel Competence:** It's essential to ensure that the audit team possesses the skills and personnel required to complete the engagement effectively. The auditor should:
  - Consider the qualifications of team members, such as certifications or special training.
  - Assess the team's collective experience with similar audits or industries.
  - Ensure continuous professional development through training and updating on new auditing standards or industry trends.
  - Rotate team members when necessary to provide fresh perspectives and prevent familiarity threats.

Assessment of the Client's Auditability

Understanding a client's auditability is a critical part of the pre-engagement process. An audit's success heavily depends on the auditee's financial reporting practices, transparency, and management's integrity.

The auditor should assess the following:

- **Management Integrity:** The auditor should evaluate the integrity and credibility of the management team.

- **Financial Reporting Framework**: The auditor should determine whether the Financial Reporting Framework utilized by the client is acceptable and aligned with standards.

- **Client's Responsibility Acknowledgment:** The client must acknowledge responsibility for Financial Statements and Internal Control.
  - **Financial Statements:** Management should acknowledge its responsibility for preparation and fair presentation of the financial statements according to the applicable financial reporting framework (AFRF).
  - **Internal Control:** Management should also acknowledge its responsibility concerning the design, implementation, and maintenance of internal controls.

- **Support for the Audit:** The client should guarantee that the auditor will have access to financial statement information, any additional information required, and unrestricted access to relevant personnel.

Communicate with the Predecessor Auditor

Communication with the predecessor auditor before accepting the engagement is a mandatory activity. This exchange ensures that the incoming auditor is well-informed about any past issues, disputes, or concerns that may be relevant for the current audit and can help the successor auditor determine the audit's scope, nature, and extent.

Communication with Predecessor Auditor would be as follows:

- **Management Authorization:** The auditor should seek management authorization to communicate with the Predecessor Auditor. If the client refuses, it would be considered a scope limitation and the auditor might decide to not accept the engagement. The predecessor auditor will have to respond as it is required by AICPA code of conduct.

- **Topics of Discussion:** The auditor should ask the predecessor auditor about the following before accepting the engagement

    - **Reasons for Change:** Before the new auditor assumes responsibility, it's important to understand why the predecessor auditor's engagement was terminated.
    - **Integrity of Management:** An auditor should ask the predecessor auditor about the credibility and reliability of the management. The predecessor might have insights into management's behavior, their willingness to comply with accounting standards, or any tendencies to manipulate financial statements.
    - **Past Audit Disagreements or Disputes:** The auditor should ask the predecessor auditor about past disputes the predecessor auditor had with the management.
    - **Communications with the Audit Committee:** The auditor should ask the predecessor auditor about the predecessor auditor’s communications with the Audit Committee on identified Fraud & Non-Compliance and Deficiencies & Weaknesses in Internal Control.
    - **Related Party and Unusual Transactions:** The auditor should ask the predecessor auditor about transactions involving related parties or those that are outside the ordinary course of business and can be used to mask financial statement misstatements or even fraud.

II. Engagement Letter

An Engagement Letter is an essential document in the auditing profession, acting as a contract between the auditor and the company being audited. It lays out the terms and conditions of the audit, the responsibilities of each party, and other critical details.

Purpose of the Engagement Letter

It's mandatory to have a written understanding in form of the Engagement Letter with the client, emphasizing the importance of documentation in the auditing process.

This understanding helps in avoiding ambiguities regarding the roles and responsibilities of both parties. It minimizes the risk that management might inappropriately expect the auditor to assume roles that are essentially management's duty.

Components of the Engagement Letter

- **Parties to Agreement:** Parties to Engagement Letter include:
  - **Auditor**
  - **Management**
  - **Those Charged with Governance:** For Non-Issuers, this is typically the Board of Directors (BOD). For Issuers, it can include both the Board of Directors (BOD) and the Audit Committee.

- **Objectives and Scope of Audit:** This includes the primary objectives of the audit and the depth or extent of the examination the auditor will undertake.

- **Management's Responsibilities:** Management is responsible for the following:
  - **Financial Statements and Internal Controls**: Management is responsible for preparing the financial statements and establishing and maintaining effective internal controls over financial reporting.
  - **Access:** Management must provide the auditor with unrestricted access to all information, financial records, and individuals that the auditor believes necessary for the audit.
  - **Written Representations:** Before concluding the audit, the auditor may request written representations from management to confirm certain aspects, such as the completeness of information provided.

- **The Auditor's Responsibilities:** The auditor is responsible for the following:
  - **Opinion:** The auditor's primary responsibility is to provide an opinion on the company's financial statements and, in the case of an integrated audit, on the effectiveness of internal controls over financial reporting.
  - **Communication:** If the auditor identifies any significant deficiencies or material weaknesses in the company's internal controls, they must communicate these to management and Those Charged with Governance.

- **Limitations of Audit:** An audit provides reasonable assurance, not absolute assurance. This means that there is always some risk that material misstatements may not be detected, due to inherent limitations like the use of sampling.

- **Form of the Audit Report:** The engagement letter may state that the audit report may not necessarily be unmodified. Depending on the findings, the auditor might issue a qualified opinion, an adverse opinion, or a disclaimer of opinion.

- **Fees and Other Arrangements:** The engagement letter will also outline the following:
  - **Fees Structure:** The engagement letter will outline the fee structure for the audit.
  - **Additional Services:** If there are additional services (e.g., tax consulting) to be provided, these will be specified.
  - **Involvement of Specialists and Internal Auditors:** Arrangements may be discussed regarding the involvement of specialists, internal auditors, and other staff of the entity in the audit process.
  - **Confidentiality:** Provisions concerning the sharing of audit documentation with third parties.

Sample Engagement Letter

To the appropriate representative of those charged with governance of ABC Company:

The Objective and Scope of the Audit

You have requested that we audit the financial statements of ABC Company, which comprise the balance sheet as of December 31, 20XX, and the related statements of income, changes in stockholders' equity, and cash flows for the year then ended, and the related notes to the financial statements. We are pleased to confirm our acceptance and our understanding of this audit engagement by means of this letter. Our audit will be conducted with the objective of our expressing an opinion on the financial statements.

The Responsibilities of the Auditor

We will conduct our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Because of the inherent limitations of an audit together with the inherent limitations of internal control, an unavoidable risk that some material misstatements may not be detected exists, even though the audit is properly planned and performed in accordance with GAAS.

In making our risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. However, we will communicate to you in writing concerning any significant deficiencies or material weaknesses in internal control relevant to the audit of the financial statements that we have identified during the audit.

The Responsibilities of Management and identification of the Applicable Financial Reporting Framework

Our audit will be conducted on the basis that management and, when appropriate, those charged with governance acknowledge and understand that they have responsibility

a. For the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America;
b. For the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; and
c. To provide us with
    i. access to all information of which [management] is aware that is relevant to the preparation and fair presentation of the financial statements such as records, documentation, and other matters;
    ii. additional information that we may request from [management] for the purpose of the audit; and
    iii. unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence.

As part of our audit process, we will request from [management and, when appropriate, those charged with governance], written confirmation concerning representations made to us in connection with the audit.

Other Relevant Information

[Insert other information such as fee arrangements, billings, and other specific terms, as appropriate.]

Reporting

[Insert appropriate reference to the expected form and content of the auditor's report. Example follows:]

We will issue a written report upon completion of our audit of ABC Company's financial statements. Our report will be addressed to the board of directors of ABC Company. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinion, add an emphasis-of-matter or other-matter paragraph(s), or withdraw from the engagement.

We also will issue a written report on [Insert appropriate reference to other auditor's reports expected to be issued] upon completion of our audit.

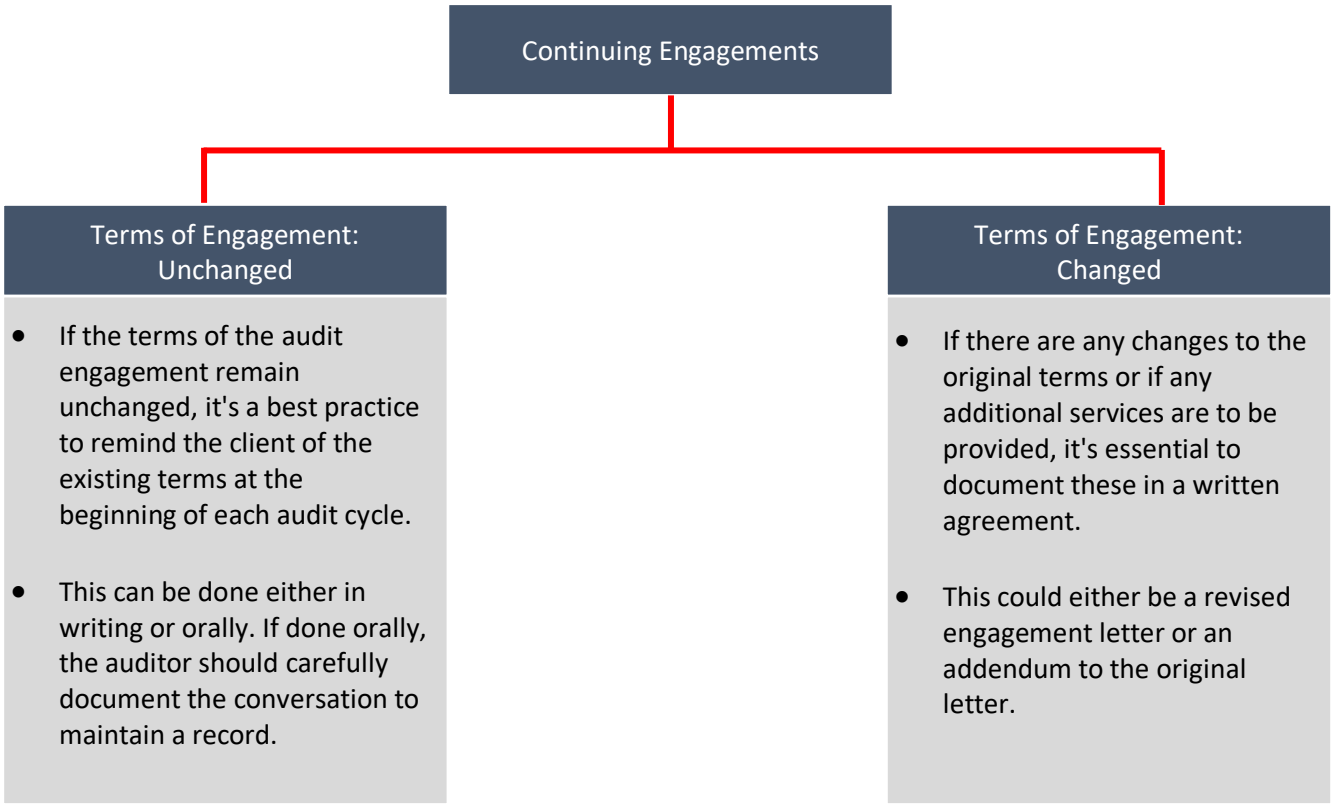
Please sign and return the attached copy of this letter to indicate your acknowledgment of, and agreement with, the arrangements for our audit of the financial statements including our respective responsibilities.

XYZ & Co.
Acknowledged and agreed on behalf of ABC Company by

[Signed I Name and Title | Date]

III. Continuing Engagements

When an auditor has an ongoing relationship with a client, it is termed as a continuing engagement. Such engagements often involve recurring audits, reviews, or other assurance services. While the foundational terms of the engagement might remain consistent, each new period of audit could have varying factors or circumstances that might necessitate revisions to the original terms.



IV. Client Request for a Change in the Terms of Engagement

Auditors and clients might occasionally encounter situations where the client requests a change in the terms of the engagement or a lower level of assurance. The reasons for such requests can vary, and the auditor's response will depend on whether the request is reasonable or not.

Reasonable Request

A request is considered reasonable if the client may have misunderstood the nature or scope of the service initially agreed upon. This misunderstanding can be a legitimate reason for requesting a change. If the terms are changed due to such a misunderstanding, it's critical for both the auditor and the client to document the new terms. This is achieved through an updated engagement letter or a comparable written agreement.

In such cases, the subsequent report issued on the altered service should not make any reference to:

- The original audit engagement.
- Any audit procedures or tasks conducted during the original audit engagement.

Unreasonable Request

The auditor should decline any change in the engagement terms or a request to downgrade to a service with a lower level of assurance if there's no reasonable basis for the change. For instance, if the auditor faces challenges in validating receivables and the client pushes to change the engagement to a review (to avoid an adverse or qualified opinion), it's usually seen as an unreasonable request.

In the instance of an Unreasonable Request, the auditor should do the following:

- **Withdraw from the Engagement:** If the client's request lacks a reasonable basis and they don't allow the auditor to proceed with the original engagement, the auditor should consider withdrawing from the engagement.
- **Communication:** It's essential for the auditor to communicate the reasons for withdrawal and their concerns to those charged with governance. This communication often takes place with the audit committee or board of directors.
- **Obligation to Inform:** Depending on the regulatory environment and the nature of the client's operations, the auditor might also have an obligation to inform other stakeholders or regulatory bodies about their withdrawal and the reasons for it.

NINJA NOTES

Auditing & Attestation 2024

Engagement Acceptance

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Engagement Acceptance

Audit Stages

- **Pre-Engagement Acceptance Activities → Engagement Letter** → Audit Strategy & Planning → Internal Control Evaluation → Substantive Procedures → Audit Completion → Report Preparation and Communication → Post-Audit Responsibilities & Audit Quality Control

Pre-Engagement Acceptance Activities & Engagement Letter

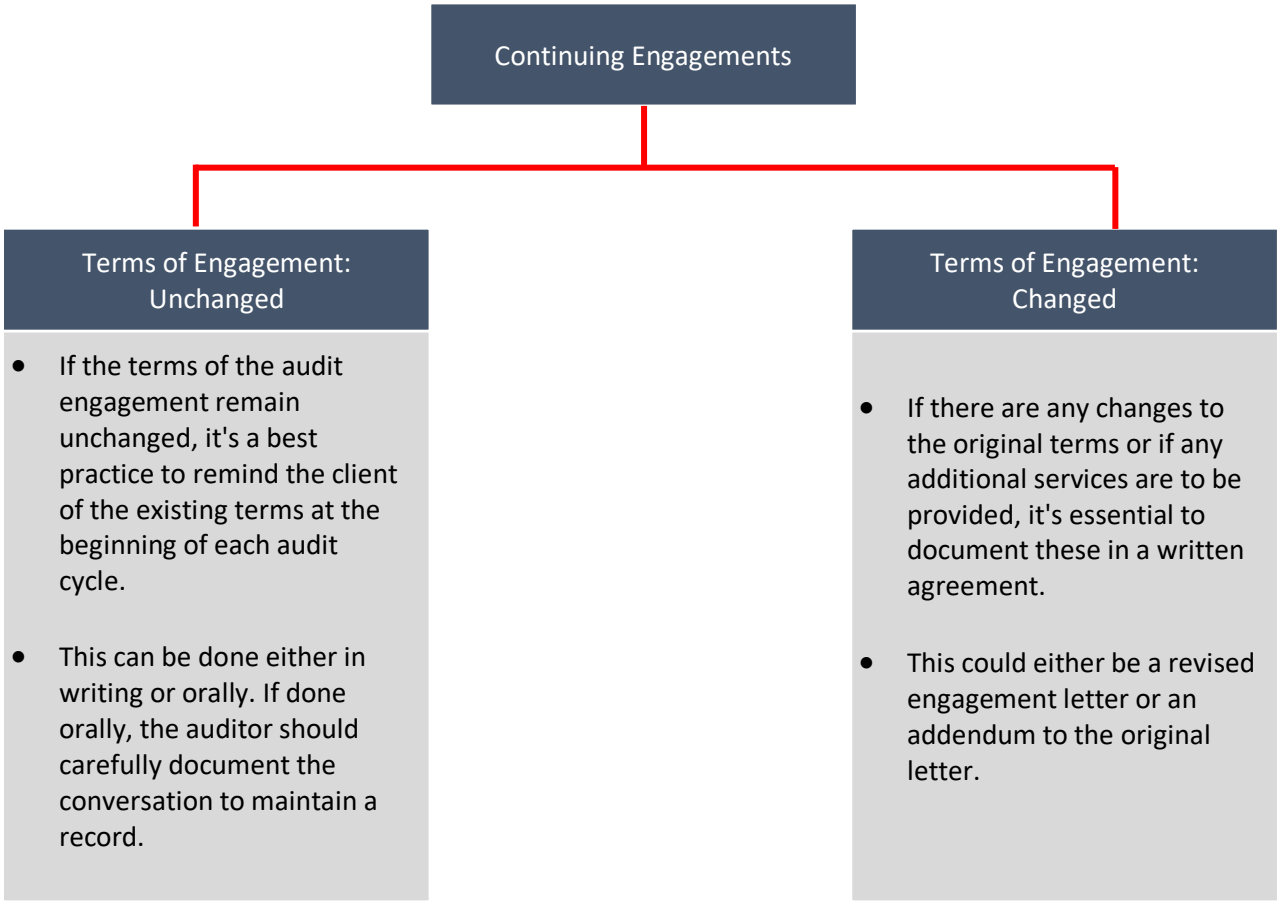
- Pre-Engagement Acceptance Activities
    - Receive an Appointment
    - Assessment of Auditor's Capability
        - Auditor must ensure they are independent and adhere to all relevant ethical rules of conduct.
        - Auditor should ascertain they have the necessary time and resources to finish the audit
        - Auditor should ensure that the audit team possesses the skills and personnel required to complete the engagement effectively.
    - Assessment of the Client's Auditability
        - The auditor should evaluate the integrity and credibility of the management team.
        - Determine whether the Financial Reporting Framework utilized by the client is acceptable and aligned with standards.
        - The client must acknowledge responsibility for Financial Statements and Internal Control.
        - The client should guarantee that the auditor will have access to financial statement information, any additional information required, and unrestricted access to relevant personnel.
    - Communicate with the Predecessor Auditor
        - Communication with the predecessor auditor before accepting the engagement is a mandatory activity
        - Communication with Predecessor Auditor would be as follows:
        - The auditor should seek management authorization to communicate with the Predecessor Auditor.

        - Topics of Discussion
            - Reasons for Change
            - Integrity of Management
            - Past Audit Disagreements or Disputes
            - Communications with the Audit Committee
            - Related Party and Unusual Transactions

- Engagement Letter
    - It's mandatory to have a written understanding in form of the Engagement Letter with the client.
    - Components of the Engagement Letter
        - Parties to Agreement
            - Auditor
            - Management
            - Those Charged with Governance
        - Objectives and Scope of Audit
        - Management's Responsibilities
            - Financial Statements and Internal Controls
            - Access
            - Written Representations
        - The Auditor's Responsibilities
            - Opinion on Financial Statements
            - Communication of any significant deficiencies or material weaknesses in the company's internal controls.
        - Limitations of Audit
        - Form of the Audit Report

- Fees and Other Arrangements
  - Fees Structure
  - Additional Services
  - Involvement of Specialists and Internal Auditors
  - Confidentiality

Continuing Engagements



Client Request for a Change in the Terms of Engagement

- Reasonable Request
    - The subsequent report issued on the altered service should not make any reference to:
        - The original audit engagement.
        - Any audit procedures or tasks conducted during the original audit engagement.
- Unreasonable Request
    - Decline any change in the engagement terms. In the instance of an Unreasonable Request, the auditor should do the following:
        - Withdraw from the Engagement
        - Communicate the reasons for withdrawal and their concerns to those charged with governance.
        - Obligation to Inform other stakeholders or regulatory bodies about their withdrawal and the reasons for it.

NINJA BOOK

Regulation 2024

S-Corporation Taxation

(July 1, 2024 – June 30, 2025 Exams)

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S-Corporation Taxation

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III. Eligibility
IV. Election
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S-Corporation Termination

I. S-Corporation Termination

S-Corporation: Overview

S-Corporation: Overview

I. Definition

An S Corporation (S Corp) is a type of corporation that is taxed under Subchapter S of the Internal Revenue Code.

An eligible domestic corporation can avoid double taxation (once to the corporation and again to the shareholders) by electing to be treated as an S corporation. The key characteristic of an S Corp is that it combines the limited liability advantage of a traditional C Corporation with the pass-through taxation structure of a partnership or sole proprietorship.

II. Pass-Through Entity

S-Corporation is considered a pass-through entity for tax purposes, meaning that the income earned by the S-Corporation is not taxed at the entity level. Instead, it's passed through to the shareholders who report their share of the S-Corporation's income, losses, deductions, and credits on their individual tax returns.

III. Eligibility

To qualify for S Corporation status, a corporation must meet the following requirements as outlined by the Internal Revenue Service (IRS):

- **Domestic Corporation:** The corporation must be a domestic entity, meaning it must be organized in the United States.
- **No More than 100 Shareholders:** The S Corporation cannot have more than 100 shareholders. Family members (spouses, ancestors, or lineal descendants) may elect to be treated as one shareholder.
- **Eligible Shareholders:** Shareholders must meet the following criteria:
    - Shareholders must be Individuals, Estates or Trusts.
    - Corporations, Partnerships, or Non-Qualified Trusts cannot be shareholders.
    - Shareholders must be U.S. citizens or residents. Nonresident aliens cannot be shareholders.
- **Single Class of Stock:** The corporation can only have one class of stock. While there can be differences in voting rights among the shares, there can't be differences in the rights to distribution of profits or assets.
- **Ineligible Corporations:** Certain types of corporations are not eligible for S Corporation status. These include certain financial institutions, insurance companies, and domestic international sales corporations.

IV. Election

Election for S-Corporation status must be made as follows:

- **Unanimous Election:** All shareholders must agree to the corporation's decision to elect S status. This is because, in an S Corporation, the corporation's profits and losses are passed through to the shareholders and taxed at their individual tax rates, making them personally responsible for income taxes resulting from the election.

- **Form:** To elect to be an S Corporation, a corporation must submit Form 2553 "Election by a Small Business Corporation" signed by all the shareholders to the IRS.

- **Due Date:** To be considered an S Corporation for the current year, the election must be made either during the preceding year or by the 15th day of the third month of the current tax year i.e., March 15 for a calendar year corporation.

- **Late & Ineffective Election:** Late Election and Ineffective Election and be treated as an election for the next tax year.

    - **Late Election:** If a corporation fails to make the election on time, it can be considered a late election and be treated as an election for the next tax year.

    - **Ineffective Election:** If an election is ineffective because it did not meet all the requirements when it was made, but the issues were corrected later, the IRS generally treats the election as being made for the next tax year.

V. S-Corporation Taxable Year

General Rule

An S corporation is required to have a December 31st year-end or a fiscal year that matches the fiscal year of shareholders who own more than 50% of the corporation's stock.

Fiscal Year Exception

If a valid business purpose exists, an S corporation may ask for IRS approval to adopt a different fiscal year. A valid business purpose exists if, for three consecutive years, at least 25% of the S corporation’s gross receipts are received in the last two months of the selected fiscal year.

VI. Tax Accounting Basis: Cash & Accrual

- **Cash Basis:** Under this method, income is recognized when actually or constructively received, and expenses are deductible when paid. Cash Basis is allowed for S-Corporations that have average annual gross receipts of $30 Million or less (for 2024) during the preceding 3 Years.

- **Accrual Basis:** Under this method, income is recognized when earned, and expenses are deductible when incurred. Accrual Basis is required for S-Corporations that have average annual gross receipts of $30 Million or more (for 2024) during the preceding 3 Years.

VII. Formation of S-Corporations

The formation of S-Corps is treated exactly as they are for C-Corps. Please refer to the C-Corporation Chapter for details. Here's a summary of how S-Corporation Formation is treated for tax purposes.

Transactions	Gain / Loss for Shareholders	Shareholder's Basis in S-Corporation Stock	Gain / Loss for Corporation	Corporations Basis in Property
Issuance of Stock in Exchange for Cash				
Issuance of Stock in Exchange for Cash	• No Gain or Loss	• Value of Cash Contributed	• No Gain or Loss	• Value of Cash Contributed
Issuance of Stock in Exchange for Property				
Contributors of Cash and Property > 80% or More control	• Gain Realized = FMV – Basis • Gain Recognized = $0	• Basis of Property Contributed - Mortgage Debt Given Up	• No Gain or Loss	• Shareholder's Carryover Basis
Contributors of Cash and Property < 80% or More control	• Gain Realized & Recognized = FMV – Basis	• Basis of Property Contributed - Mortgage Debt Given Up + Gain Recognized	• No Gain or Loss	• Shareholder's Carryover Basis + Gain Recognized by the Shareholder
Boot is received by the shareholder along with stock	• Gain Realized = FMV – Basis • Gain Recognized = Lesser of Gain Realized or Boot Received	• Basis of Property Contributed - Mortgage Debt Given Up + Gain Recognized - Boot Received	• No Gain or Loss	• Shareholder's Carryover Basis + Gain Recognized by the Shareholder
Mortgage Debt Exceeds the Basis of Property	• Gain Realized & Recognized = Mortgage Debt – Basis	• Basis of Property Contributed - Mortgage Debt Given Up + Gain Recognized ($0)	• No Gain or Loss	• Shareholder's Carryover Basis + Gain Recognized by the Shareholder
Shareholder's Basis of Property > FMV of Property	• Loss Realized = Basis – FMV • Loss Recognized = $0	• Basis of Property Contributed - Mortgage Debt Given Up	• No Gain or Loss	• FMV of Property (Shareholder's Carryover Basis - Loss Realized by the Shareholder)
Issuance of Stock in Exchange for Services				
Issuance of Stock in Exchange for Services	• Ordinary Income = FMV of Stock Received	• FMV of Stock Received	• Value of Stock Issued for Services will be taken as Expense Deduction	• Corporation will have no basis in service since it was an expense

Overview of Form 1120-S

Overview of Form 1120-S

S-Corporation is a pass-through entity which implies that S-Corporation itself does not pay any income tax. Instead, the income or losses of the corporation are passed through to the shareholders, who report this income on their individual tax returns and pay taxes on it.

Form 1120-S is used by S Corporations to report their income, losses, dividends, deductions, and credits for a particular tax year.

I. Form 1120-S: Filing Deadline

A S-Corporation must file Form 1120-S with the IRS on or before 2.5 months after the close of its tax year. For a calendar year (January to December) corporation, the return is due March 15.

If the S-Corporation needs additional time to file Form 1120-S, it can request a six-month extension by filing Form 7004.

II. Form 1120-S: Overview

Form 1120-S

Form 1120-S is an informational return that reports total corporate income and each shareholder's pro rata share of this income. Shareholders then pay tax on their pro rata share of S-Corporation income, regardless of whether or not any income actually was distributed to them.

Form 1120-S has Schedule K and Schedule K-1.

- **Schedule K:** This part of Form 1120-S summarizes the S Corporation's ordinary income and separately lists all items that are not ordinary income. Because certain types of income and deductions are treated differently on an individual tax return, these are listed separately so that shareholders know how to handle them on their own returns. Non-Separately Stated Income and Separately Stated Income are as follows:

    - **Ordinary Business Income:** Ordinary Income consists of Income derived from the active conduct of business. This type of income is netted with expenses at the corporate level and then passed through to shareholders as ordinary income.

    - **Separately Stated Items:** Separately stated items are reported separately on Schedule K and K-1 because they may be subject to different tax treatment or limitations at the individual shareholder level, as compared to the corporate level. Examples of Separately Stated Items include:

Separately Stated Item	Reason Separately Stated
Interest & Dividends	Separately Stated because the amount of investment expenses you can deduct is limited to your investment income which is different for each shareholder.
Passive Activity Income	Separately Stated because Passive Activity Loss is limited to Passive Activity Income which is different for each shareholder.
Capital gains and losses	Separately Stated because Capital Losses are limited to Capital Gains which is different for each shareholder.
Charitable contributions	Separately Stated because charitable contributions are limited to 60% of a taxpayer's adjusted gross income (AGI) which is different for each shareholder.
Section 179 Election	Separately Stated because there is a dollar limit and phase-out on the use of election per year which is different for each shareholder.
Tax credits	Separately Stated because tax credits are limited to tax liability which is different for each shareholder.

- **Schedule K-1:** Each shareholder of the S Corporation receives a Schedule K-1, which shows their share of the corporation's income, losses, deductions, and credits for the year. Shareholders use this information to complete their individual tax returns.

III. Form 1120-S: Flow

The flow of Income from Form 1120-S to Form 1040 is demonstrated below:

S-Corporation			Individual
Form 1120-S			
Revenues			
<Business Expenses>			
Ordinary Business Income			
Schedule K (Total) (Only 1 Schedule K)		Schedule K-1 (Pro-rate For Each Shareholder) (Multiple prepared for each shareholder)	Form 1040
Ordinary Business Income	→	% Ordinary Business Income	→ Schedule E of Form 1040
Interest and Dividend Income	→	% Interest and Dividend Income	→ Schedule B of Form 1040
Rent and Royalties	→	% Rent and Royalties	→ Schedule E of Form 1040
Capital Gains	→	% Capital Gains	→ Schedule D of Form 1040
<Capital Losses>	→	<% Capital Losses>	→ Schedule D of Form 1040
<Charitable Contributions>	→	<% Charitable Contributions>	→ Schedule A of Form 1040
<Investment Interest Expense>	→	<% Investment Interest Expense>	→ Schedule A of Form 1040
<Tax Credit>	→	<% Tax Credit>	→ Form 1040
Income Reconciliation		**Income Reconciliation**	

IV. Allocation of Income for Shares Held Less than A Year

When a shareholder owns shares in an S Corporation for less than a full year, their share of the corporation's income needs to be prorated based on the actual length of time the shares were held during the year.

- **Calculate Total Annual Income**: Calculate the S Corporation's Total Income for the year.
- **Calculate Average Daily Income:** Divide the total annual income by the number of days in the year (365 in a regular year or 366 in a leap year) to find the Average Daily Income.

  $\Rightarrow$ Average Daily Income = $\frac{\text{Total Annual Income}}{365}$

- **Calculate Average Daily Income Per Share:** Divide the average daily income by the total number of shares in the S Corporation. This gives you the Average Daily Income Earned Per Share.

  $\Rightarrow$ Average Daily Income Per Share = $\frac{\text{Average Daily Income}}{\text{No. of Shares}}$

- **Allocate Income to Shareholder:** To allocate income to a shareholder who has held shares for less than a full year, you would multiply the average daily income per share by the number of days the shareholder held their shares.

  $\Rightarrow$ Income Allocated to Shareholder = Average Daily Income Per Share x No. of Days

V. Fringe Benefits

Fringe benefits are additional compensations given to an employee over and above their regular salary. They can include things like health insurance, company cars, meals, or retirement plan contributions. Fringe Benefits paid by S-Corporation is taxed as follows:

Fringe Benefits to Less than 2% Shareholders	Deductible
Fringe Benefits to More than 2% Shareholders	Deductible to S-Corp only when included in Shareholder in Form W-2

Shareholder's Basis in S-Corporation

Shareholder's Basis in S-Corporation

It is important to determine the basis of a shareholder in an S-Corporation because it determines:

- Amount of loss shareholders can deduct on their individual tax returns.
- Gain or loss when the shares are sold.
- Amount a shareholder can receive tax-free as distributions from the corporation.

I. Shareholder's Stock Basis in S-Corporation

In an S-Corporation, stock basis refers to an individual shareholder's investment in the company. This basis is essentially the shareholder's "Capital Account" in the S-Corporation for tax purposes.

To calculate Shareholder's Basis in S-Corporation first, add contributions and income, then subtract distributions, and then deductions and losses at last. Shareholder's Stock Basis in S-Corporation is calculated as follows:

Initial Basis	XXX	The initial basis of an S corporation shareholder usually is the amount of money and the adjusted basis of any property the shareholder contributes to the corporation in exchange for stock. Initial Basis = Cash + Adjusted Basis of Property + Services Contributed
Add: Additional Contributions	XXX	The shareholder's stock basis increases for additional capital contributions the shareholder makes to the corporation.
Add: Non-Separately Stated Income Add: Separately Stated Income Add: Tax-Exempt Income	XXX XXX XXX	The shareholder's stock basis increases for the shareholder's allocable share of the S corporation's taxable and non-taxable income.
Less: Distributions	XXX	The shareholder's stock basis decreases for the distributions made to the shareholder that are not taxable as dividends. Distribution cannot reduce basis below zero. If distribution reduces basis below zero, report a gain.
Less: Separately Stated Expenses Less: Non-Separately Stated Expense Less: Tax-Exempt Expense	(XXX) (XXX) (XXX)	The shareholder's stock basis decreases for the shareholder's allocable share of the S corporation's losses and deductions, and non-deductible expenses. Losses and Deductions cannot reduce basis below zero. If the Loss reduces basis below zero, the loss is not deductible.
Final Basis	**XXX**	The stock basis at the end of the year carries over to the next year to be the beginning stock basis for that year.

II. Shareholder's Debt Basis in S-Corporation

Shareholder's Debt Basis in S-Corporation refers to loans made by a shareholder to the S-Corporation. Only loans made directly from the shareholder to the corporation increase the debt basis. A shareholder guarantee of a third-party loan to the S corporation, without more, does not increase the shareholder's debt basis.

A shareholder can use their debt basis to absorb losses from the S corporation that exceed their stock basis. However, losses are first deducted from the shareholder's stock basis, and only then can they be deducted from the shareholder's debt basis.

Shareholder's Debt Basis in S-Corporation is calculated as follows:

Initial Debt Basis	XXX	Loans made by Shareholders to S-Corporation
Less: Repayments	XXX	A shareholder's debt basis decreases by repayments of the loans made by the S-Corporation to the shareholder.
Less: Separately Stated Expenses Less: Non-Separately Stated Expense Less: Tax-Exempt Expense	(XXX) (XXX) (XXX)	A shareholder's debt basis decreases by the shareholder's share of the S corporation's losses and deductions, but only after these items have reduced the shareholder's stock basis to zero.
Final Basis	**XXX**	The debt basis at the end of the year carries over to the next year to be the beginning debt basis for that year.

III. Shareholder's Tax Basis (At-Risk Basis) in S-Corporation

Shareholder's Tax Basis in S-Corporation refers to the total of the shareholder's Stock and Debt Basis. This is the amount that a shareholder has invested in the S-Corporation for tax purposes and represents the maximum amount that a shareholder can deduct in losses from the S-Corporation.

IV. Shareholder's At-Risk Basis in S-Corporation

The at-risk amount generally includes the shareholder's stock and debt basis but does not include certain types of financing for which the shareholder is not personally liable, such as non-recourse loans.

V. S-Corporation Shareholders Limitations on Loss Deduction

The ability of S-Corporation shareholders to claim losses from the corporation on their individual tax returns is limited to their tax basis subject to the at-risk and passive activity loss rules. These limitations are applied in the following order:

Tax Basis Limitation	Shareholders can only claim a loss to the extent of their Tax Basis in their S-Corporation which is the sum of Stock and Debt basis. If a shareholder's share of the S-Corporation's loss exceeds their tax basis, the excess loss is suspended and carried forward to future years.
At-Risk Basis	After applying the tax basis limitation, the at-risk rules further limit the amount of loss a shareholder can claim. If a shareholder's share of the S-Corporation's loss exceeds their at-risk basis, the excess loss is suspended and carried forward to future years.
Passive Activity Loss (PAL) Limitation	Passive Activity Loss is limited to Passive Activity Income. These rules generally apply if the shareholder does not materially participate in the S-Corporation's business.
Excess Business Loss Limitation	The Excess Business Loss Limitation will also apply. This rule limits the amount of net business losses a non-corporate taxpayer can use to offset other income. For 2024, the limit is $305,000 for single filers and $610,000 for married filing jointly. Any loss in excess of these amounts is treated as a net operating loss carryforward.

S-Corporation Earnings

S-Corporation Earnings

I. Accumulated Adjustment Account (AAA)

Accumulated Adjustments Account (AAA) represents the cumulative total of undistributed profits made by S-Corp during S-Corp years.

Profits of S-Corporations are taxable only once. AAA account is used to keep track of undistributed income that has already been taxed when earned, to ensure that when it is distributed, it won't be taxed again.

Accumulated Adjustments Account (AAA) is calculated as follows:

Opening Accumulated Adjustments Account (AAA)	XXX	
Add: Non-Separately Stated Income Add: Separately Stated Income	XXX XXX	Tax-exempt income received by the S-Corp does not increase the AAA. Since it is not taxable, the shareholders do not pay tax on it when it's earned by the S-Corp. So, it would not be fair to distribute it tax-free in the future, as it could lead to double benefits.
Less: Separately Stated Expenses Less: Non-Separately Stated Expense Less: Tax-Exempt Expense	(XXX) (XXX) (XXX)	Non-deductible expenses reduce the AAA. These are expenses that the corporation incurred but can't deduct for tax purposes and therefore already paid taxes on it and would be only fair to distribute that portion of income tax-free. However, any non-deductible expenses that are related to earning tax-exempt income do not reduce the AAA.
Less: Distributions	(XXX)	
Closing Accumulated Adjustments Account (AAA)	**XXX**	

II. Accumulated Earnings & Profits (AEP)

Accumulated earnings and profits represent the total earnings and profits that an S-Corporation has generated while it was a C-Corporation. For S corporations, AEP usually comes into play when a corporation has switched from C-Corporation status to S-Corporation status.

Profits earned by C-Corporations are taxed at the corporate level when earned, and then again at the shareholder level when distributed as dividends. This is often referred to as double taxation. If the C Corporation later elects S-Corporation status, it may have Accumulated Earnings and Profits (AEP) from its years as a C-Corporation. These profits were taxed at the corporate level when earned. However, because these profits have not yet been distributed to shareholders, they have not yet faced the second layer of taxation that normally occurs at the shareholder level. Such that distribution from the AEP is subject to tax at the shareholder level when distributed as dividends.

Accumulated Earnings and Profits (AEP) is calculated as follows:

Opening Accumulated Earnings and Profit	**XXX**
Add/Less: Current Earnings and Profits	XXX / (XXX)
Less: Distributions • Cash Distributions: Amount Distributed • Property Distributions: (Higher of FMV or Basis) - Liability	(XXX)
Closing Accumulated Earnings and Profit	**XXX**

S-Corporation Termination

S-Corporation Termination

I. S-Corporation Termination

Termination Reasons

An S corporation's status can be terminated under several circumstances, including failure to meet eligibility requirements, excessive passive investment income, or voluntary revocation by shareholders.

Voluntary Revocation by Shareholders

Shareholders holding more than 50% of the corporation's shares can voluntarily terminate its S-Corporation status. Voluntary Revocation is effective as follows:

- **Date Specified in the Revocation:** If a date is specified in the revocation, the termination is effective from the date specified in the revocation
- **Date not Specified in the Revocation:** If no specific revocation date is mentioned, the date of termination is either
  - **Effective the start of the Current Tax Year:** If the revocation was made within the first 2.5 months of the tax year.
  - **Effective from the start of the Next Tax Year:** If the revocation was made after the first 2.5 months of the tax year

Failure to Meet Eligibility Requirements

If an S corporation fails to satisfy one of the eligibility requirements, its S-Corporation status is terminated as of the date the requirement was violated. Examples of such events include:

- **Shareholder Limit Breached:** An S Corporation can have no more than 100 shareholders. If the number of shareholders exceeds this limit, the S-Corp status is terminated.
- **Non-Resident Alien Shareholders**: All shareholders of an S Corporation must be U.S. citizens or resident aliens. If shares are sold to a non-resident alien, the corporation's S-Corp status is terminated.
- **Ineligible Entity Shareholders**: S Corporation stock can only be owned by individuals, certain trusts, and estates. If shares are sold to another corporation, partnership, or a non-qualified trust, the S-Corp status is terminated.
- **Multiple Classes of Stock:** An S Corporation can have only one class of stock. If the corporation issues a second class of stock (like preferred stock), the S-Corp status is terminated.

Termination Due to Excessive Passive Income

If more than 25% of the S-Corp's gross receipts come from passive income (such as rents, royalties, dividends, interest, annuities, and gains from sales or exchanges of stocks or securities) for three consecutive years, and the corporation has Accumulated Earnings And Profits (AEP) from its time as a C-Corp at the end of each of these years, the S-Corp status is terminated.

If the S-Corp fails the passive income test the S-Corp status is terminated effective from the beginning of the fourth year.

Termination during the Middle of the Year

When the S-Corp status is terminated during a tax year, the corporation's income for the year is allocated between the S-Corp short year and the C-Corp short year.

Re-Election

Once the S-Corp status is terminated, the corporation generally can't re-elect S-Corp status for five years, unless the IRS consents to an earlier re-election.

NINJA NOTES

Regulation 2024

S-Corporation Taxation

(July 1, 2024 – June 30, 2025 Exams)

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S-Corporation Taxation

S-Corporation: Overview

- Eligibility
  - Domestic Corporation
  - No More than 100 Shareholders
  - Eligible Shareholders
    - Shareholders must be Individuals, Estates or Trusts.
    - Corporations, Partnerships, or Non-Qualified Trusts cannot be shareholders.
    - Shareholders must be U.S. citizens or residents. Non-resident aliens cannot be shareholders.
  - Single Class of Stock
  - Ineligible Corporations
    - These include certain financial institutions, insurance companies, and domestic international sales corporations.
- Election
  - Unanimous Election
  - To elect to be an S Corporation, a corporation must submit Form 2553 "Election by a Small Business Corporation" signed by all the shareholders to the IRS.
  - To be considered an S Corporation for the current year, the election must be made either during the preceding year or by the 15th day of the third month of the current tax year.
- S-Corporation Taxable Year
  - General Rule
    - An S corporation is required to have a December 31st year-end or a fiscal year that matches the fiscal year of shareholders who own more than 50% of the corporation's stock.
  - Fiscal Year Exception
    - If a valid business purpose exists, an S corporation may ask for IRS approval to adopt a different fiscal year.

- Tax Accounting Basis: Cash & Accrual
    - Cash Basis
        - Cash Basis is allowed for S-Corporations that have average annual gross receipts of $30 Million or less (for 2024) during the preceding 3 Years.
    - Accrual Basis
        - Accrual Basis is required for S-Corporations that have average annual gross receipts of $30 Million or more (for 2024) during the preceding 3 Years.
- Overview of Form 1120-S
    - Form 1120-S: Filing Deadline
        - A S-Corporation must file Form 1120-S with the IRS on or before 2.5 months after the close of its tax year. For a calendar year (January to December) corporation, the return is due March 15.

Form 1120-S: Flow

S-Corporation	Individual

Form 1120-S
Revenues
<Business Expenses>
Ordinary Business Income

Schedule K (Total) (Only 1 Schedule K)		Schedule K-1 (Pro-rate For Each Shareholder) (Multiple prepared for each shareholder)		Form 1040
Ordinary Business Income	→	% Ordinary Business Income	→	Schedule E of Form 1040
Interest and Dividend Income	→	% Interest and Dividend Income	→	Schedule B of Form 1040
Rent and Royalties	→	% Rent and Royalties	→	Schedule E of Form 1040
Capital Gains	→	% Capital Gains	→	Schedule D of Form 1040
<Capital Losses>	→	<% Capital Losses>	→	Schedule D of Form 1040
<Charitable Contributions>	→	<% Charitable Contributions>	→	Schedule A of Form 1040
<Investment Interest Expense>	→	<% Investment Interest Expense>	→	Schedule A of Form 1040
<Tax Credit>	→	<% Tax Credit>	→	Form 1040
Income Reconciliation		**Income Reconciliation**		

Allocation of Income for Shares Held Less than A Year

- Calculate Total Annual Income
- Calculate Average Daily Income
  - Average Daily Income = $\frac{\text{Total Annual Income}}{365}$
- Calculate Average Daily Income Per Share
  - Average Daily Income Per Share = $\frac{\text{Average Daily Income}}{\text{No. of Shares}}$
- Allocate Income to Shareholder
  - Income Allocated to Shareholder = Average Daily Income Per Share x No. of Days

Fringe Benefits

Fringe Benefits to Less than 2% Shareholders	Deductible
Fringe Benefits to More than 2% Shareholders	Deductible to S-Corp only when included in Shareholder in Form W-2

Shareholder's Basis in S-Corporation

- Shareholder's Stock Basis in S-Corporation

Initial Basis	XXX
Add: Additional Contributions	XXX
Add: Non-Separately Stated Income	XXX
Add: Separately Stated Income	XXX
Add: Tax-Exempt Income	XXX
Less: Distributions	XXX
Less: Separately Stated Expenses	(XXX)
Less: Non-Separately Stated Expense	(XXX)
Less: Tax-Exempt Expense	(XXX)
Final Basis	**XXX**

- Shareholder's Debt Basis in S-Corporation

Initial Debt Basis	XXX
Less: Repayments	XXX
Less: Separately Stated Expenses	(XXX)
Less: Non-Separately Stated Expense	(XXX)
Less: Tax-Exempt Expense	(XXX)
Final Basis	**XXX**

- Shareholder's Tax Basis (At-Risk Basis) in S-Corporation

- Shareholder's At-Risk Basis in S-Corporation

- S-Corporation Shareholders Limitations on Loss Deduction

Tax Basis Limitation	Shareholders can only claim a loss to the extent of their Tax Basis in their S-Corporation which is the sum of Stock and Debt basis. If a shareholder's share of the S-Corporation's loss exceeds their tax basis, the excess loss is suspended and carried forward to future years.
At-Risk Basis	After applying the tax basis limitation, the at-risk rules further limit the amount of loss a shareholder can claim. If a shareholder's share of the S-Corporation's loss exceeds their at-risk basis, the excess loss is suspended and carried forward to future years.
Passive Activity Loss (PAL) Limitation	Passive Activity Loss is limited to Passive Activity Income. These rules generally apply if the shareholder does not materially participate in the S-Corporation's business.
Excess Business Loss Limitation	The Excess Business Loss Limitation will also apply. This rule limits the amount of net business losses a non-corporate taxpayer can use to offset other income. For 2024, the limit is $305,000 for single filers and $610,000 for married filing jointly. Any loss in excess of these amounts is treated as a net operating loss carryforward.

S-Corporation Earnings

- Accumulated Adjustment Account (AAA)

Opening Accumulated Adjustments Account (AAA)	XXX
Add: Non-Separately Stated Income Add: Separately Stated Income	XXX XXX
Less: Separately Stated Expenses Less: Non-Separately Stated Expense Less: Tax-Exempt Expense	(XXX) (XXX) (XXX)
Less: Distributions	(XXX)
Closing Accumulated Adjustments Account (AAA)	**XXX**

- Accumulated Earnings & Profits (AEP)

Opening Accumulated Earnings and Profit	**XXX**
Add/Less: Current Earnings and Profits	XXX / (XXX)
Less: Distributions • Cash Distributions: Amount Distributed • Property Distributions: (Higher of FMV or Basis) - Liability	(XXX)
Closing Accumulated Earnings and Profit	**XXX**

S-Corporation Termination

- S-Corporation Termination
  - Termination Reasons
    - Voluntary Revocation by Shareholders
      - Shareholders holding more than 50% of the corporation's shares can voluntarily terminate its S-Corporation status.
    - Failure to Meet Eligibility Requirements
      - Shareholder Limit Breached
      - Non-Resident Alien Shareholders
      - Ineligible Entity Shareholders
      - Multiple Classes of Stock
    - Termination Due to Excessive Passive Income
      - More than 25% of the S-Corp's gross receipts come from passive income for three consecutive years.
      - The corporation has Accumulated Earnings and Profits (AEP) from its time as a C-Corp at the end of each of these years.
  - Termination during the Middle of the Year
    - When the S-Corp status is terminated during a tax year, the corporation's income for the year is allocated between the S-Corp short year and the C-Corp short year.
  - Re-Election
    - Once the S-Corp status is terminated, the corporation generally can't re-elect S-Corp status for five years unless the IRS consents to an earlier re-election.

NINJA BOOK

Business Analysis & Reporting
2024

Strategic Planning & Budgeting

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This book is written to provide accurate and authoritative information concerning the covered topics for the Uniform CPA Examination and is to be used solely for studying for the Uniform CPA Examination and for no other purpose.

Strategic Planning & Budgeting

Strategy

I. Levels of Strategy
II. Long-term Mission and Goals

Forecasting Techniques

I. Regression Analysis
II. Learning Curve Analysis
III. Expected Value Analysis
IV. Other Forecasting Tools

Budgeting Methodologies

I. Master Budgets
II. Flexible Budgeting
III. Continuous (Rolling) Budgeting
IV. Zero-Based Budgeting
V. Incremental Budgeting
VI. Activity-Based Budgeting
VII. Project Budgeting
VIII. Life-Cycle Budgeting

Operating Budget

I. Sales Budget
II. Production Budget
III. Direct Materials Budget
IV. Direct Labor Budget
V. Overhead Budget
VI. Cost of Goods Sold Budget
VII. Selling, General, and Administrative (SG&A) Expense Budget
VIII. Pro Forma Income Statement
IX. Cash Budget
X. Pro Forma Balance Sheet
XI. Pro Forma Statement of Cash Flows

Strategy

Strategy

I. Levels of Strategy

Any large organization will develop strategies at different levels of business.

Corporate Strategy:

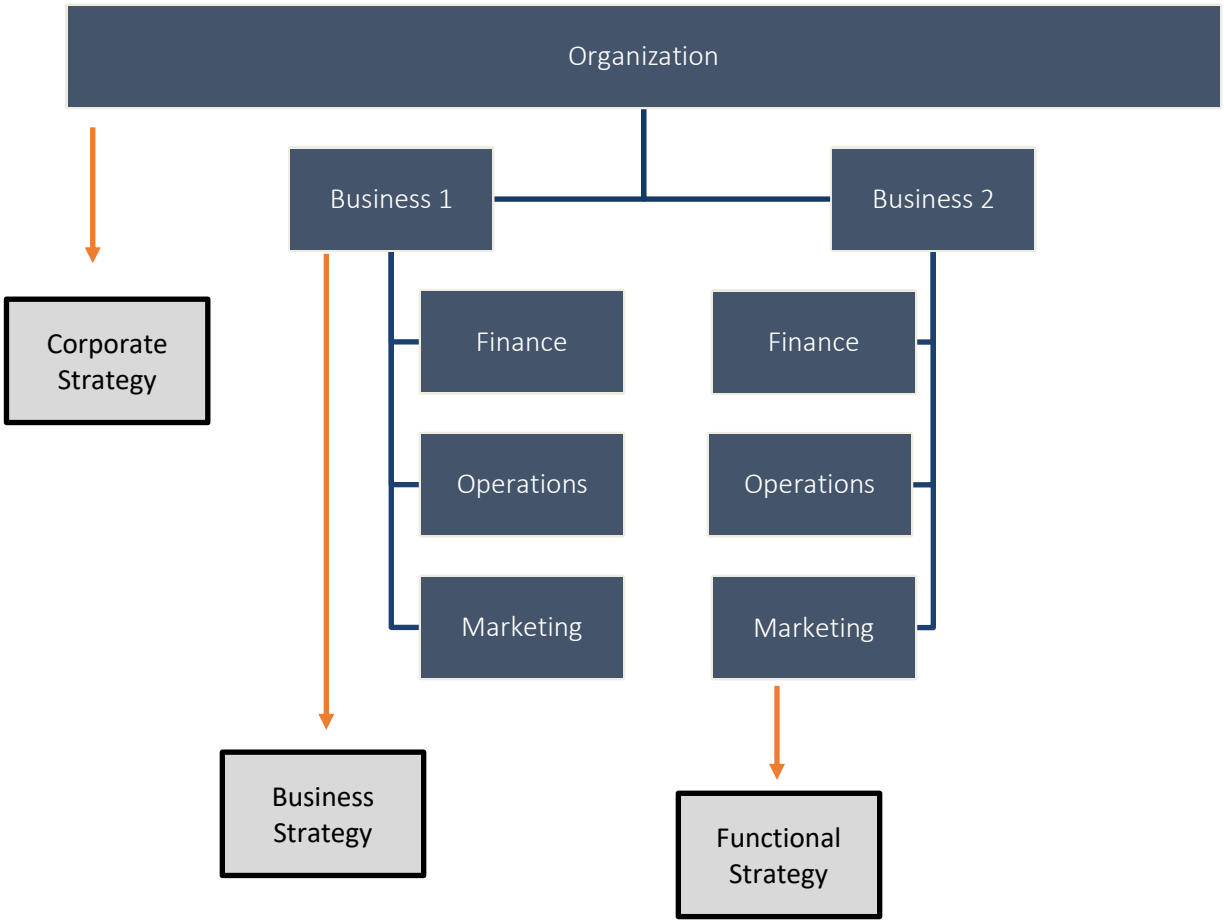
- The corporate strategy addresses issues facing the whole company. The corporate strategy helps an organization decide the industries and businesses it should operate to maximize profitability. For example, Microsoft's decision to manufacture its line of computer laptops is a corporate-level strategy.
- It also determines how resources and capital will be allocated amongst different business units of the organization. For example, Apple's allocation of available funds towards research and development for its various products, such as iPhones, iPads, and MacBooks, is a decision based on corporate-level strategy.
- Decisions about expansion, mergers, and acquisitions, and vertical and horizontal integration are all decisions based on corporate strategy. For example, Facebook's decision to invest in and acquire WhatsApp is based on a corporate-level strategy.

Business Strategy:

- Business strategy involves decision-making processes to determine how a business segment operates and succeeds within its industry. It consists of making decisions about the business's target market. For example, luxury brands such as Louis Vuitton have focused their products on a very niche target market of ultra-wealthy individuals.

Functional Strategy:

- Every business division has different functions like marketing, operations, finance, sales, human resources, etc. Functional-level strategy develops plans, objectives, and guidelines for each of these departments and functions, such as to maximize the effectiveness and efficiency of operations.
- An organization with multiple business segments would have a distinct corporate strategy and business strategy. For a single-business organization, corporate strategy is the same as business strategy.



Functional strategy is based on the business strategy, which in turn is based on corporate strategy.

For example:

- Corporate strategy: increase overall profitability by 30%
- Business strategy: individual business units to improve sales by introducing new products
- Functional strategy: functional departments to optimize costs and increase sales

The outcomes for the various levels of strategy are different. However, they all must be consistent and congruent such that the achievement of corporate strategy is dependent upon the achievement of business strategy, which in turn is dependent upon the achievement of functional strategy.

II. Long-term Mission and Goals

After carefully considering all the internal and external factors influencing the organization and utilizing the help of the various strategic planning tools, an organization develops its long-term plans. These plans include the vision, mission, strategies, goals, and objectives. Long-term plans are further broken down into short-term operational plans and budgets.

Vision

The vision statement refers to what the organization intends to accomplish in the future and how it wants to be perceived by various stakeholders. The vision statement is the organization's objectives expressed in terms of contribution to society. Vision is a tool that inspires and provides a sense of direction to the organization. For example, Tesla's vision statement is: "To accelerate the world's transition to sustainable energy."

Mission

The mission statement refers to how an organization intends to create value for its stakeholders. It articulates an organization's business plan. The mission statement is based on the vision statement and explains how an organization will achieve its vision. The mission statement usually focuses on the core business activities of the organization. For example, Tesla's mission statement is "To create the most compelling car company of the 21st century by driving the world's transition to electric vehicles."

Goals

To achieve the mission and vision of the organization, the management draws up goals that can be broken down into strategic (long-term) and tactical (short-term) goals.

Strategic Goals

Strategic goals are long-term in nature and deal with the entity's strategic policies. For example, "Acquire 30% market share of United States automobile industry by 2030."

Tactical Goals

Tactical goals, on the other hand, are short-term in nature, and these ensure the achievement of strategic goals. Simply put, tactical goals are subsets of strategic goals. For example, "Increase production capacity by 20%."

Objectives

Goals are further broken down into objectives. Objectives are the plan of action and should be specific, measurable, attainable, realistic, and timely (SMART). For example, "Purchase additional machinery that would increase production capacity in the next 6 months."

Forecasting Techniques

Forecasting Techniques

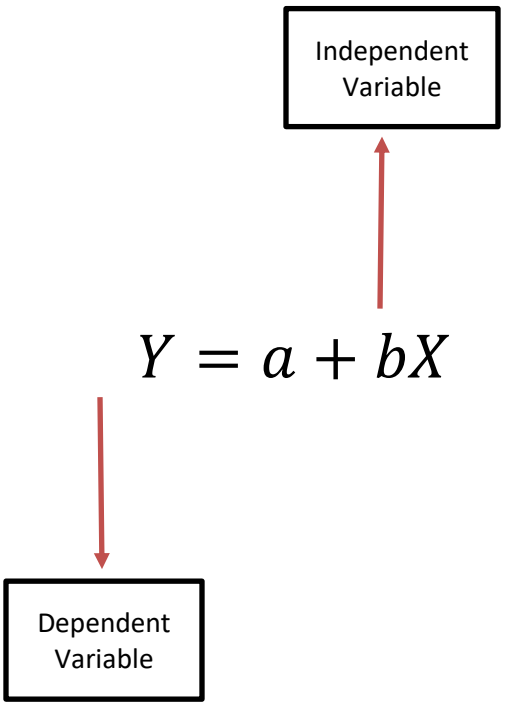
A vital function of any business is budgeting, which is based on forecasting. Budgeting relies on information and data for future periods, which must be accurately forecasted. Forecasts can be based on experiences and judgments; however, they are also analyzed using various quantitative forecasting tools such as Regression Analysis, Learning Curve Analysis, and Expected Value Analysis. The budgets prepared must be adjusted for uncertainties.

I. Regression Analysis

Regression analysis is a mathematical technique used to predict the value of the dependent variable based on the value of the independent variable. Regression analysis may be used to predict future sales, revenues, profits, demands, costs, etc., or to separate a semi-variable item into its fixed and variable components. Simple regression analysis involves using only one independent (explanatory) variable, while multiple regression analysis allows for more than one independent variable.

Regression analysis understands relationships and patterns between historical data and uses it to predict future information.

Regression Equation

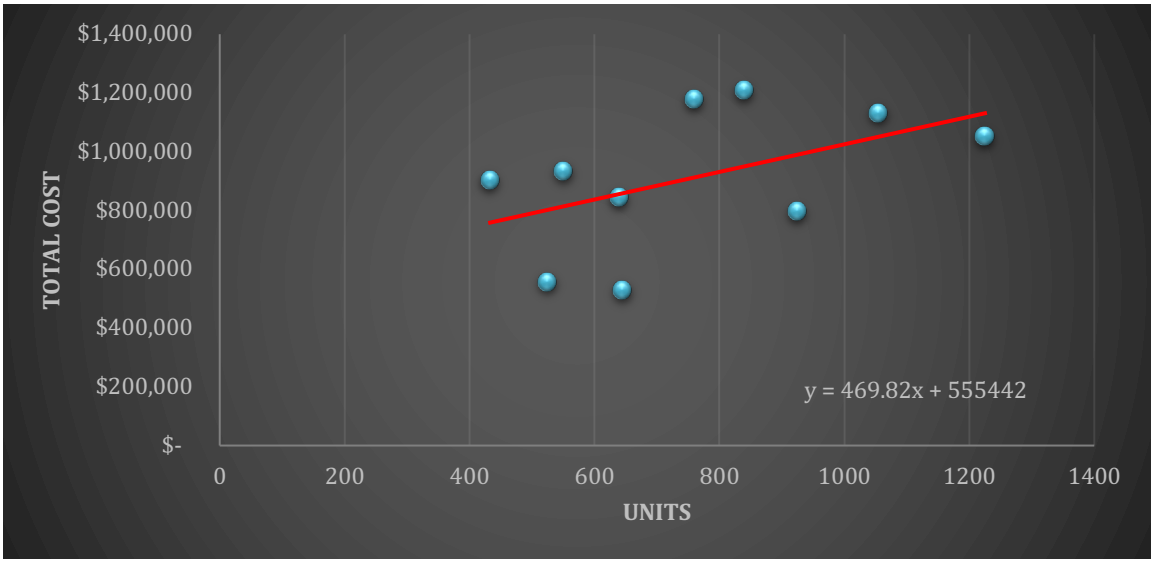


- Y = dependent variable. The value of "Y" is predicted using the value of "X" which is the independent variable.
- X = independent variable.
- a = Y Intercept. “a” is constant. It represents the value of Y when X = 0.
- b = slope/regression coefficient. “b” represents the impact of the change of the independent variable on the dependent variable.

Consider the following cost data obtained for an organization, which reflects units manufactured and total cost information as follows:

Year	Units	Total Cost
1	525	$ 556,500
2	640	$ 843,750
3	925	$ 795,000
4	1225	$ 1,050,725
5	1055	$ 1,131,000
6	760	$ 1,176,250
7	645	$ 528,500
8	840	$ 1,207,500
9	551	$ 932,110
10	433	$ 903,215

The data points above can be plotted on the scatter plot, as shown below. The scatter plot shows a relationship between total cost (Y) and units (X). A simple linear regression line (in red) has been drawn through these data points. The regression lines are the line that best "fits" the data points such that regression lines are also called best fit lines. This line represents a relationship between an independent and dependent variable and can predict values in the future.



Using the data, the following values have been calculated. The computation of these values is beyond the scope of the CPA exams, and the same would be shared in the question.

Intercept	$555,442
Units	$469.85
Standard Error	$221,004
Multiple R	0.49
R-Square	0.24
T-Stat	2.38

From the above values, the following simple linear regression equation can be derived.

$$Y = \$555{,}442 + 469.85X$$

Where Y is the total cost, and X is the number of units. This regression equation can be used to predict the total cost for various levels of units.

- **Total Cost at 1,000 units:**
  Y = $555,442 + 469.85 x 1,000 = $1,025,292

- **Total Cost at 1,200 units**
  Y = $555,442 + 469.85 x 1,200 = $1,119,262

- **Total Cost at 1,500 units**
  This equation cannot be used to predict total cost at 1,500 units, as it is outside the relevant range used to develop the equation. This equation holds true only between 433 – 1,225 units.

Multiple R

The coefficient of correlation (R), i.e., multiple R, measures the degree of linearity in the relationship between two variables, one dependent and one independent variable. It can vary only between +1 and –1. These two values imply a perfect linear relationship between the two variables. Both the variables move in the same direction when the correlation coefficient is positive and opposite if it is negative. A value that is close to +1 or -1 indicates a high degree of correlation.

R-Squared

The coefficient of determination, which is the square of the coefficient of correlation (R2), lies between 0 and 1. As the value of the coefficient of determination approaches +1, we get a higher level of assurance that the independent variable accounts for most of the variability in the dependent variable. This is the critical output of regression analysis and is used primarily to analyze how differences in one independent variable can affect another dependent variable. An R-squared value of 0.24 implies that the change in the independent variable explains 24% of the change in the dependent variable, and the remaining 76% of the change is explained by other variables not accounted for in the regression equation.

Standard Error

The standard error is used to assess the accuracy and precision of predictions made using the regression equation. For example, if the total cost predicted for 1,000 units is $1,025,292, the equation would predict that the total cost could be between $1,246,296 and $804,288 ($1,025,292 +/- $221,004). This prediction is not very precise, given a high standard error.

T-Statistic

The T-statistic (or T-stat) measures whether an independent variable has a substantial and long-term relationship to a dependent variable. A T-stat value of more than 2 is considered statistically significant and can be used to demonstrate relationships; however, a T-stat value of more than 3 is preferred.

[The exams require the understanding and meaning of multiple R, R-squared, standard error, and T-stat. The calculations are beyond the scope of the exam.]

Advantages of Regression Analysis

- **Simplicity:** Linear regression forecasting models are simple to understand and relatively easy to implement and evaluate.
- **Multiple Data Points:** Linear regression forecasting models consider various past data points in forecasting instead of the high-low method, which considers only the highest and lowest data values.

Disadvantages of Regression Analysis

- **Effect of Outliers:** Outliers can significantly impact the forecasts made by the linear regression models.
- **Assumption of Linearity:** Regression equations assume a straight-line linear relationship between the independent and dependent variables. However, more often than not, the relationships are not linear, leading to inaccurate forecasting.

II. Learning Curve Analysis

The learning curve is the graphic representation of how units per labor hour increase as they gain experience with a task. It results when time per unit is plotted on the x-axis with cumulative units of production on the y-axis. The learning curve is used to forecast and budget for labor costs.

The phrase “learning curve” refers to the phenomenon that when people first perform a task, they will be slower than when they perform it for the 100th time. Learning curves show the relationship between productivity and experience when the time required to perform a given task during the early stages of production becomes progressively shorter. Learning curve analysis is a function that shows how labor hours per unit decline as units of production increase due to workers learning and becoming better at their jobs.

Cumulative Average-Time Learning Model

With the cumulative average-time learning model, the learning curve applies to the average time taken to manufacture the product such that the average time declines every time production doubles.

Let's take the following example: a worker can manufacture one specially designed ergonomic chair in 10 hours and experience a learning curve of 80%.

- **1 Unit**

The time taken to manufacture the first unit is 10 hours, and the average time to manufacture the first unit is also 10 hours. However, as the worker produces more units of the same product, the time taken to produce further units will progressively decline.

- **2 Units**

The average time required to produce two units of the chair would be 8 hours (10 Hours x 80%) such that the total time required would be 16 hours (8 hours x 2), and the time required to manufacture the second chair would be 6 hours (16 Hours – 10 Hours).

- **4 Units**

The average time required to produce four units of the chair would be 6.4 hours (8 hours x 80%) such that the total time required would be 25.6 hours (6.4 hours x 4), and the time required to manufacture the fourth unit would be 4.5 hours (calculation of individual time after 2 units is beyond the scope of CPA exams).

- **8 Units**

The average time required to produce eight units of the chair would be 5.12 hours (6.4 hours x 80%), such that the total time required would be 40.96 hours (5.12 hours x 8), and the time required to manufacture the eighth unit would be 3.5 hours (calculation of individual time after 2 units is beyond the scope of CPA exams).

The following model can be constructed to calculate the time required:

Cumulative no. of units produced (A)	Average time per unit (B)	Total Time (A x B)	Individual time per unit
1	10 Hours	1 x 10 Hours	10 Hours
2	10 x 80% = 8 Hours	2 x 8 Hours	6 Hours
4	8 x 80% = 6.4 Hours	25.6 Hours	4.5 Hours
8	6.4 x 80% = 5.12 Hours	40.96 Hours	3.5 Hours

Advantages of Learning Curve Analysis

- **Accuracy:** Learning curve analysis incorporates future efficiencies and learnings into forecasts, leading to accurate budget formation and competitive pricing.

- **Planning:** Learning curve analysis assists in better human resource planning as it will map individuals to tasks based on their strengths and weaknesses

Disadvantages of Learning Curve Analysis

- **Constant Learning Rate:** Learning curve analysis assumes a constant learning rate (let's say 80%). However, the learning curve, in reality, would not be observed at the same rate for all activity levels. The learning curve might be experienced at a certain rate in one activity level and another at the other activity level. Moreover, the learning rate would be different for different individuals and workers.

- **Relevance:** Learning curve analysis is focused on efficiencies in manual processes. However, in today's day and age, most manufacturing processes are automated and machine-based, putting the learning curve's relevance into question.

III. Expected Value Analysis

While forecasting, managers can forecast multiple possible scenarios. However, it would not be advisable to base the budgets on one of the possible scenarios; instead, managers should combine several scenarios to form an average expected value based on all possible scenarios. This is done using the expected value analysis. Expected value analysis is a prediction technique based on scenarios likely to occur in the future, with a probability distribution representing the likelihood of each scenario expected to occur to maximize the expected monetary profits (or minimize expected loss). Expected value analysis assigns probabilities to possible outcomes and weights those outcomes by their respective probabilities to derive a single most likely value.

The expected value has a practical use for project managers in that it can be used to evaluate alternatives and make decisions. Looking at the alternatives, the project manager should select the one with the highest expected profit or the one with the lowest expected loss.

$$Expected\ Value = X\ x\ P(X)$$

For example, a company has developed the following probability distribution for the forecasted sales:

Sales (X)	Probability P(X)	X x P(X)
15,000	10%	1,500
30,000	35%	10,500
45,000	10%	4,500
60,000	25%	15,000
75,000	20%	15,000

⇒ Expected Value = Sales (X) x Probability P(X)
⇒ Expected Value = [(15,000 x 10%) + (30,000 x 15%) + (45,000 x 10%) + (60,000 x 25%) + (75,000 x 20%)]
⇒ Expected Value =1,500 + 10,500 + 4,500 + 15,000 + 15,000 = 46,500 units

Advantages of Expected Value Analysis

- **Multiple Scenarios:** Expected value analysis incorporates multiple future scenarios into forecasting, which leads to effective planning and budgeting.

- **Simplicity:** Expected value analysis is simple to calculate and understand as it presents the combination of all the scenarios as a single expected value.

Disadvantages of Expected Value Analysis

- **Based on Estimates:** Expected value analysis is based on estimates of variables and probabilities of those variables. Estimates are subject to bias and errors, which can make the forecasts inaccurate and ineffective.

- **Not the Most Likely Outcome:** Expected value analysis forecasts the average outcome and not the most likely outcome. Therefore, the actual result can be completely different from the forecast.

IV. Other Forecasting Tools

Sensitivity Analysis

Sensitivity analysis is a popular method for recognizing uncertainty about individual items and obtaining a financial estimate of the consequences of possible prediction errors. It is the use of what-if scenarios to evaluate possible outcomes. It involves varying the input parameters and rerunning the model with the different inputs, thus getting a financial estimate of how sensitive the result is to the inputs' errors. The probability theory fits in with sensitivity analysis because it can give a worst-case, best-case, and most likely scenario of profit outcomes.

Sensitivity analysis tests our forecasts and predictions to understand and evaluate the change in forecasted value given the change in circumstances and conditions. In the previous example, the company predicted the expected value of sales as 46,500 units. Sensitivity analysis would evaluate the impact of change in inputs such as sales units and corresponding probabilities on the expected value so that the organization can be prepared for the worst case, best case, and most likely scenario.

Time Series Analysis and Smoothing

Time series analysis or trend analysis measures variables against time to find patterns and behavioral trends. It can prove very useful for managers to forecast the future values of variables and control them. Time series analysis uses time as the independent variable and some other variable as the dependent variable.

Smoothing is a sub-part of time series analysis used to smoothen out the random and uncertain fluctuations that usually occur from the irregular components of a time series.

Decision Tree Analysis

Decision tree analysis is useful when several possible outcomes (the branches of the tree) are associated with each event. Then, the expected payoff of each branch may be computed by multiplying the possible payoff by its probability. In this manner, one can choose the branch with the highest expected payoff. Generally, the "root" of the tree is divided into several branches, each of which is subsequently divided into sub-branches, etc. This represents the sequence of paths and choices that may be made.

Monte-Carlo Simulations

The Monte Carlo simulation is a computer-based statistical technique used to generate values for a random variable when the probability distribution is known, providing insight into risk analysis. It collects statistics on multiple solutions when it is inappropriate to assign single-point estimates.

Budgeting Methodologies

Budgeting Methodologies

A budget may be defined as a plan for future operations expressed in dollars or units, or both. Its purpose is to show the results of future operations given the goals, policies, forecasts, and standards of operations. Budgeting may also be referred to as a managerial tool for profit planning and control, as actual results of operation may be compared with budgeted results of operations to identify problem areas.

I. Master Budgets

A master budget is a plan that coordinates and communicates a company's plan for the coming year to all departments and divisions. Based on the forecasts and standards developed, various budgets are prepared for each function. The master budget consolidates all these budgets into an overall plan and control document for a budgeted period. A master budget is divided into two parts (operating budgets and financial budgets), which include all of the following budgets from various functions:

Operating Budgets	Financial Budgets
Sales budget	Cash Budget
Production budget	Capital Budget
Direct materials budget	
Direct labor budget	
Overhead budget	
Cost of Goods Sold Budget	
Selling and administrative expense budget	

A master budget provides a blueprint for the organization. To prepare master budgets, an organization can use specific budgeting tools like flexible budgeting and continuous budgeting and specific budgeting methodologies like activity-based budgeting or zero-based budgeting.

An entity can prepare a master budget using any combination of these tools and methodologies. A master budget can be developed, which is flexible and uses activity-based budgeting, or it could also be prepared using the continuous budgeting method, which uses zero-based budgeting, or in any other combination.

II. Flexible Budgeting

A static budget is based on the initial level of output planned and does not change with the actual level of output. A comparison of actual activities to static budget levels is often misleading. Flexible budgets allow for better comparison with actual costs. Suppose the firm decides to produce fewer units than what is called for in the static budget. In that case, a static budget will present a favorable variance as overall costs are less and are misleading because the static budget has not been adjusted to the actual level of activity.

A flexible budget is a budget that adjusts or flexes with changes in volume or activity. A flexible budget is prepared using budgeted rates for the actual level of activity. The use of a flexible budget would compare the difference between actuals and budgets at the actual level of activity such that it would allow for better control and assessment. The flexible budget is created using the actual number of units produced, which can be different from the number of units used in creating the master budget.

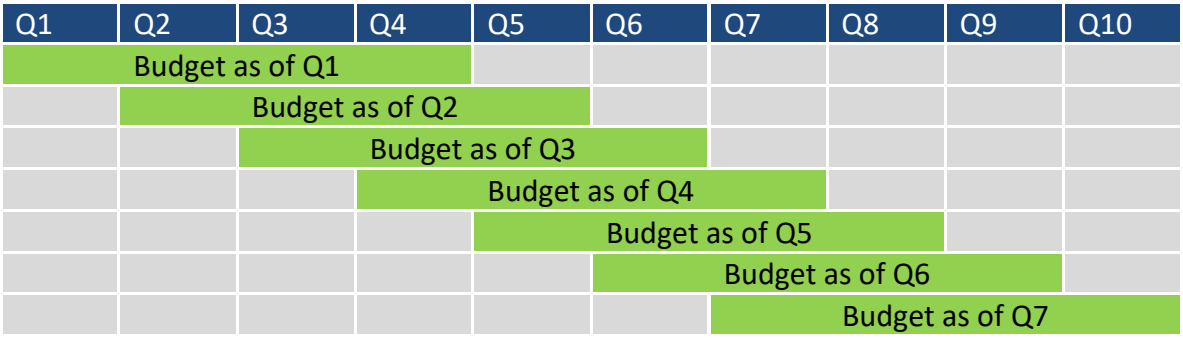
III. Continuous (Rolling) Budgeting

A continuous budget or rolling budget adds a new period onto the budget at the end of each budgeting period, so that there are always several periods planned for the future, and the budgets remain up to date with the operating environment. The word rolling suggests a budget for which the addition of one month or quarter is accompanied by the dropping of an earlier month or quarter.

For example, under regular budgeting, at the beginning of quarter 1, an organization has a budget for four future periods (quarter 1, 2, 3, and 4). However, at the end of quarter 1, it has budgeted for only three future periods (quarter 2, 3, and 4). In this situation, an organization might not have sufficient budgeted targets which would reduce employee's focus from the organization's strategy and how it is moving forward into the future.

Continuous Budgeting, on the other hand, removes such limitations. It adds a new period at the end of each period so that there is always a sufficient number of periods planned. Under continuous budgeting, at the end of quarter 1, the organization would drop the budget for quarter 1 and add the budget for quarter 5 while updating the budgets for quarter 2, 3, and 4. All budgets are updated for change in the entity's environment, and there are always four periods planned into the future.

It would do the same at the end of quarter 2, where it will drop the budget for quarter 2 and add the budget for quarter 6 while updating the budgets for quarters 3, 4, and 5.



IV. Zero-Based Budgeting

Zero-based budgeting starts from scratch without using the prior year's numbers. It is forward-looking and, therefore, focuses on constant cost justification. It identifies various programs within each department in an organization and then determines the annual cost budgeted for each of the programs. The zero-based budgeting approach looks at operations as if they were just beginning and requires justification for all revenues and expenditures. Zero-based budgeting classifies budget requests by understanding the benefits arising from each activity. A request is approved if it provides a benefit, or else it is rejected. It is more granular, based on a prior period's success/failure, and agile to fit current production or processing needs.

V. Incremental Budgeting

Incremental budgeting starts with the prior year's budget and produces increments into the future based on the preceding year's results and the coming year's expectations. In contrast to zero-based budgeting, incremental budgeting begins with the last period's budget and then makes incremental changes to the old budget to develop the new budget.

VI. Activity-Based Budgeting

Activity-based budgeting (ABB) is a budgeting technique in which budgets are prepared using activity-based costing, where overheads are allocated to departments based on the level of activity consumed. Activity-based budgeting systems allocate overhead to each product by using multiple cost drivers. Thus, it provides a better picture of each product's costs compared to the traditional system, which allocates resources based on direct labor hours or machine hours. This cost allocation can help the company make better pricing decisions and submit competitive bids, enhancing the overall effectiveness of the budgeting process.

VII. Project Budgeting

Project budgeting is used to budget for projects that exist as a separate entity from all other elements of a company. Project budgeting is used for one specific client or specific assignments such as movie production or special orders. Under project budgeting, all costs pertaining to the project are tracked and budgeted directly for the project, and each project is evaluated as a separate entity.

VIII. Life-Cycle Budgeting

Life-cycle budgeting focuses on individual products and attempts to budget the costs of the product over the entire life cycle from research and development to customer support.

Operating Budget

Operating Budget

I. Sales Budget

The first step in the budgeting process (given the goals and policies of operation) is to forecast the level of sales for the budget period. Consideration must be given to general economic conditions, the company's pricing policy, expected sales effort, past sales levels, the company's relative market position, the trend of acceptance for the company's products, etc. The sales budget should be broken down by geographic locations, product lines, and sales entities to facilitate the control function of budgeting.

Sales budget is calculated: Forecasted Units x Forecasted Price

Example

Ninja Company, which is preparing the upcoming quarter budget (January-March), projected the following sales figures. Prepare the sales budget:

Month	Forecasted Units	Forecasted Sales Price ($)	Budgeted Sales ($)
December	10,000	$50	$500,000
January	12,000	$50	$600,000
February	15,000	$50	$750,000
March	18,000	$60	$1,080,000
April	20,000	$60	$1,200,000
May	22,000	$60	$1,320,000

Budgeted Sales (January, February & March)	$2,430,000

II. Production Budget

The production budget calculates the number of units required to be produced to meet the expected sales targets, usually determined by the sales or marketing departments. Once that has been determined, the production budget can be prepared. It uses budgeted sales, the beginning inventory, and the desired ending inventory to calculate the necessary production.

	Units
Opening Inventory	XXX
Add: Production	**XXX**
Less: Cost of Goods Sold	(XXX)
Ending Inventory	XXX

Example

Ninja Company's policy is to maintain finished goods inventory levels at 30% of the following month's budgeted sales units. Prepare the production budget:

Month	Budgeted Sales Units	Ending inventory (30% of Next Month's COGS)	Opening Inventory (Last Month's Ending Inventory)
December	10,000	3,600	-
January	12,000	4,500	3,600
February	15,000	5,400	4,500
March	18,000	6,000	5,400
April	20,000	6,600	6,000
May	22,000	0	6,600

	January	February	March	April
Opening Inventory	3,600	4,500	5,400	6,000
Add: Production (Balancing Figure)	12,900	15,900	18,600	20,600
Less: Units Sold	(12,000)	(15,000)	(18,000)	(20,000)
Ending Inventory	4,500	5,400	6,000	6,600

Budgeted Production (January, February & March)	47,400 units

III. Direct Materials Budget

After the production budget has been prepared, the inventory levels, usage, and purchase requirements for raw materials may be determined. This budget indicates the cost and quantities of raw materials needed to meet production requirements and conform to company policies.

Direct Materials Usage Budget

Based on the production budget, the company first determines the units and cost of direct material required for production. This is done using the direct material usage budget.

Example

Ninja Company requires 2 pounds of direct material to produce 1 unit of finished goods. Each unit of direct material costs $5. Prepare a direct material usage budget.

	January	February	March	April
Production	12,900 units	15,900 units	18,600 units	20,600 units
No. of pounds per Finished Good	2	2	2	2
Pounds of Direct Material Required	25,800	31,800	37,200	41,200
Cost per Pound	$5	$5	$5	$5
Direct Material Cost	$129,000	$159,000	$186,000	$206,000

Budgeted Direct Materials Usage Cost (January, February & March)	$474,000

Direct Materials Purchase Budget

Once the direct material requirement is established, the company determines the number of units of direct materials to be purchased. This is done using a direct material purchase budget. It uses the budgeted direct materials requirement, the beginning inventory of direct materials, and the desired ending inventory of direct materials to calculate the necessary purchases.

	Units
Opening DM Inventory	XXX
Add: Purchase (a)	XXX
Less: Transfers to Production	(XXX)
Ending DM Inventory	XXX
Cost per Pound (b)	XXX
Direct Material Purchase Cost (a x b)	XXX

Example

Ninja Company's policy is to maintain direct material inventory levels at 20% of the following month's budgeted production units. Prepare the direct material purchase budget.

Month	Direct Material Required (Transfer to Production)	Ending inventory (20% of Next Month's Requirement)	Opening Inventory (Last Month's DM Ending Inventory)
January	25,800 pounds	6,360 pounds	5,160 pounds
February	31,800 pounds	7,440 pounds	6,360 pounds
March	37,200 pounds	8,240 pounds	7,440 pounds
April	41,200 pounds	-	8,240 pounds

	January	February	March
Opening DM Inventory	5,160	6,360	7,440
Add: Purchase (a)	27,000	32,880	38,000
Less: Transfers to Production	(25,800)	(31,800)	(37,200)
Ending DM Inventory	6,360	7,440	8,240
Cost per Pound (b)	$5	$5	$5
Direct Material Purchase Cost (a x b)	$135,000	$164,400	$190,000

Budgeted Direct Materials Purchase Cost (January, February & March)	$489,400

IV. Direct Labor Budget

The production budget will be used to prepare the direct labor budget. This budget indicates the hours and cost of direct labor needed to meet production requirements. In addition to the cost of wages, an organization can estimate the cost of employee benefits, such as the employer-paid portion of employee taxes and fringe benefits, such as health insurance and retirement benefits.

Example

Ninja Company estimates that it takes 1 hour of labor to assemble a table. The labor rate is $8 per hour. Prepare the direct labor budget.

	January	February	March
Production	12,900 units	15,900 units	18,600 units
Hours Required per unit	1 Hour	1 Hour	1 Hour
Total Hours Required	12,900 Hours	15,900 Hours	18,600 Hours
Cost per Hour	$8	$8	$8
Direct Labor Cost	$103,200	$127,200	$148,800

Budgeted Direct Labor Cost (January, February & March)	$379,200

V. Overhead Budget

Overheads are indirectly related to the production of the finished product. Examples include indirect materials (oil for machines), indirect labor (supervisor's wages), utilities, and property taxes on the manufacturing facility. The overhead budget is usually divided into fixed and variable costs. Direct material (DM) and direct labor (DL) are applied to the product based on actual costs, but because costs must be assigned to the product before actual overhead can be determined and allocated, a predetermined rate is used for overhead.

Overheads can be allocated based on direct labor hours/machine hours or applied using activity-based costing.

Example

Ninja Company applies variable overheads based on direct labor hours at the rate of $3 per hour. The fixed overhead rate is $100,000 per month. Prepare the overhead budget.

	January	February	March
Variable Overhead			
Total Hours Required	12,900 Hours	15,900 Hours	18,600 Hours
Variable Overhead Rate per DL Hour	$3	$3	$3
Total Variable Overhead	$38,700	$47,700	$55,800
Fixed Overhead			
Total Fixed Overhead	$100,000	$100,000	$100,000
Total Overhead	$138,700	$147,700	$155,800

Budgeted Overhead (January, February & March)	$442,200

VI. Cost of Goods Sold Budget

Cost of goods sold budget presents the total cost of producing the product sold for a period. It is created after the production, direct materials, direct labor, and overhead budgets are developed. The cost of goods sold budget will also present the cost of goods manufactured and cost of goods available for sale.

		$$
Opening Finished Goods Inventory (Given)		XXX
Add: Direct Materials (From Direct Material Usage Budget)		
Add: Direct Labor (From Direct Labor Budget)	XXX	
Add: Overheads (From Overheads Budget)	XXX	
Cost of Goods Manufactured		**XXX**
Cost of Goods Available for Sale		**XXX**
Less: Ending Finished Goods Inventory (Calculated)		(XXX)
Cost of Goods Sold		**XXX**

Example

Ninja Company's opening finished goods inventory was valued at $68,000. Prepare the cost of goods sold budget.

(January – March)		$$
Opening Finished Goods Inventory (Given)		$68,000
Add: Direct Materials (From Direct Material Usage Budget)	$474,000	
Add: Direct Labor (From Direct Labor Budget)	$379,200	
Add: Overheads (From Overheads Budget)	$442,200	
Cost of Goods Manufactured		**$1,295,400**
Cost of Goods Available for Sale		**$1,363,400**
Less: Ending Finished Goods Inventory (Calculated)		($162,000)
Cost of Goods Sold		**$1,201,400**

Ending finished goods inventory can be calculated as follows:

⇒ Total cost of goods manufactured = $1,295,400
⇒ Units manufactured (12,900 + 15,900 + 18,600) = 47,400 units
⇒ Cost per unit = $27
⇒ Ending finished goods inventory (6,000 units x $27) = $162,000

VII. Selling, General, and Administrative (SG&A) Expense Budget

Selling, general, and administrative (SG&A) expense refers to period costs expensed in the period incurred. These are non-manufacturing expenses that could be both fixed or variable. Selling expenses relate to salaries and commissions for the sales department, whereas general and administrative expenses include office salaries, rent, utilities, depreciation, etc. All these expenses must be budgeted for effective planning.

Example

Prepare Ninja Company's SG&A Expense Budget.

	$$
Salaries	$200,000
Insurance	$200,000
Rent	$50,000
Advertising	$100,000
Total Selling, General & Administrative (SG&A) Expense	$550,000

VIII. Pro Forma Income Statement

A company's operating budget starts with a sales budget. The production budget is then prepared based on the sales budget. The production budget includes a direct materials budget, direct labor budget, overhead budget, and selling and administrative expense budget. All of these budgets culminate in the development of the pro forma income statement. The pro forma income statement can also be referred to as the budgeted income statement.

These statements will show the results of operation if the plans, as outlined in the budgets, are achieved. These statements will be analyzed by top management to determine if the results of planned future operations are consistent with the enterprise's objectives and goals. When conflicts are identified, the planning process begins anew.

Sales (From Sales Budget)	$2,430,000
Less: Cost of Goods Sold (From Cost of Goods Sold Budget)	($1,201,400)
Gross Profit	$1,228,600
Less: SG&A Expense (from SG&A Budget)	($550,000)
Operating Profit	$678,600
Less: Taxes (30%)	($203,580)
Net Income	$475,020

IX. Cash Budget

After all other budgets have been prepared (covering all aspects of the enterprise's operation), their effects on cash flows are summarized in the cash budget. The annual cash budget is usually broken down into multiple monthly/weekly periods (or shorter for the very near future), showing the itemized cash receipts and disbursements during the budget period, including the financing activities and the beginning and ending cash balances.

A cash budget is a plan to forecast the cash outflows and inflows of a firm based on projected sales and purchases and other recurring expenses. It helps anticipate cash shortages or excesses, thus assisting managers in planning the firm's operations effectively. A cash budget considers all cash revenues and expenses. Non-cash expenses such as depreciation and amortization do not affect cash balances and are thus excluded from the cash budget. Further, to present an accurate picture of cash balance, both sales and purchases should be considered. Therefore, the best set of transactions to be included in a cash budget is projected sales and purchases, percentages of collections, and payment terms.

A cash budget is useful in the planning process for it provides management with information concerning the following:

- Expected sources and uses of funds
- Availability of funds for investment purposes
- Need for external financing
- Availability of funds for the repayment of debt
- Availability of funds for distribution to owners

Example

Prepare Ninja Company's cash budget using the following information:

	November	December	January	February	March
Sales	$100,000	$110,000	$120,000	$130,000	$140,000
Purchase	$40,000	$50,000	$60,000	$70,000	$80,000
Operating Expense	$30,000	$40,000	$50,000	$60,000	$70,000
Insurance					$30,000

Of the sales, 30% is cash sales, and the balance is credit sales. Cash collection for credit sales is as follows:

- 30% in month of sale
- 40% in the month following the month of sale
- 25% in the second month following the month of sale
- 5% is uncollectible

Of the purchases, 50% is cash purchases, and the balance is credit purchases. Cash payment for credit purchase is as follows:

- 60% in month of purchase
- 40% in the month following the month of purchase

Of the operating expenses, 80% of operating expenses are cash expenses and are paid in arrears.

Cash receipts would be as follows:

- January: cash sales (30% of January sales) + cash collection (30% of January credit sales + 40% of December credit sales + 25% of November credit sales)

- February: cash sales (30% of February sales) + cash collection (30% of February credit sales + 40% of January credit sales + 25% of December credit sales)

- March: cash sales (30% of March sales) + cash collection (30% of March credit sales + 40% of February credit sales + 25% of January credit sales)

Cash disbursements would be as follows:

- January: Cash purchases (50% of January purchase) + cash payment for purchases (60% of January credit purchases + 40% of December credit purchases) + cash payment for operating expenses (80% of December's operating expenses)

- February: cash purchases (50% of February purchase) + cash payment for purchases (60% of February credit purchases + 40% of January credit purchases) + cash payment for operating expenses (80% of January operating expenses)

- March: cash purchases (50% of March purchase) + cash payment for purchases (60% of March credit purchases + 40% of February credit purchases) + cash payment for operating expenses (80% of February operating expenses) + insurance payment

	January	February	March
Total Sales	$120,000	$130,000	$140,000
Cash Sales (30% of Total Sales) (a)	$36,000	$39,000	$42,000
Credit Sales (70% of Total Sales)	$84,000	$91,000	$98,000
Cash Collection:			
30% in the Month of Sales (b)	$25,200	$27,300	$29,400
40% in Month following the Month of Sale (c)	$30,800	$33,600	$36,400
25% in the Second Month following the Month of Sale (d)	$17,500	$19,250	$21,000
Total Cash Receipts (A) = (a) + (b) + (c) + (d)	**$109,500**	**$119,150**	**$128,800**
Total Purchases	$60,000	$70,000	$80,000
Cash Purchases (50% of Total Purchases) (a)	$30,000	$35,000	$40,000
Credit Purchases (50% of Total Purchases)	$30,000	$35,000	$40,000
Cash Payment:			
60% in the Month of Purchase (b)	$18,000	$21,000	$24,000
40% in Month following the Month of Purchase (c)	$10,000	$12,000	$14,000
Operating Expense (d)	$32,000	$40,000	$48,000
Insurance (e)			$30,000
Total Cash Receipts (B) = (a) + (b) + (c) + (d) + (e)	$90,000	$108,000	$156,000
Cash Surplus (Deficit) (A) – (B)	$19,500	$11,150	($27,200)

X. Pro Forma Balance Sheet

The pro forma balance sheet projects the financial position of a company and illustrates how the budgeted plan would affect the company's assets, liabilities, and stockholders' equity. The development of a cash budget should be done before the pro forma balance sheet, as the cash budget reveals information that is necessary for the preparation of the pro forma balance sheet.

XI. Pro Forma Statement of Cash Flows

The pro forma statement of cash flows is the last schedule to be prepared in the normal budget preparation process. It converts the accrual-based budgeted income statement and balance sheet into cash-based information to permit the creation of the integrated pro forma statement of cash flows.

NINJA NOTES

Business Analysis & Reporting
2024

Strategic Planning & Budgeting

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Strategic Planning & Budgeting

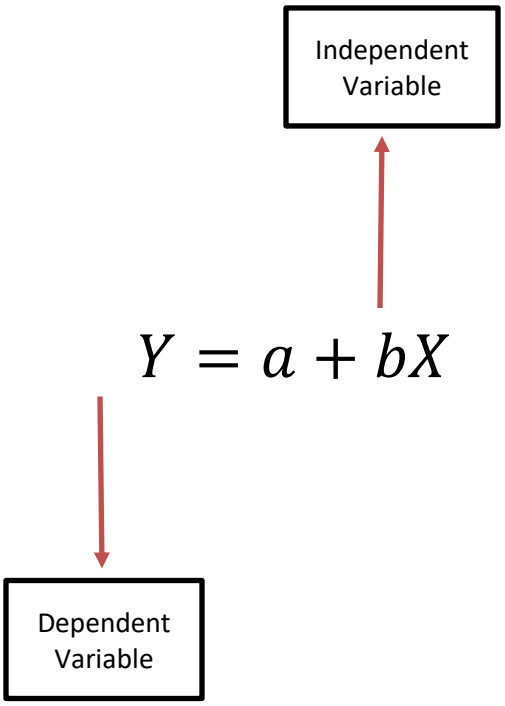
Strategy

- Levels of Strategy
    - Corporate Strategy
        - The corporate strategy addresses issues facing the whole company.
        - The corporate strategy helps an organization decide the industries and businesses it should operate to maximize profitability.
    - Business Strategy
        - Business strategy involves decision-making processes to determine how a business segment operates and succeeds within its industry.
    - Functional Strategy
        - Every business division has different functions like marketing, operations, finance, sales, human resources, etc.
        - Functional-level strategy develops plans, objectives, and guidelines for each of these departments and functions, such as to maximize the effectiveness and efficiency of operations.
- Long-term Mission and Goals
    - Vision
        - The vision statement is the organization's objectives expressed in terms of contribution to society.
        - For example, Tesla's vision statement is: "To accelerate the world's transition to sustainable energy."
    - Mission
        - The mission statement refers to how an organization intends to create value for its stakeholders.
        - The mission statement is based on the vision statement and explains how an organization will achieve its vision.
        - For example, Tesla's mission statement is, "To create the most compelling car company of the 21st century by driving the world's transition to electric vehicles."

- Goals
  - Strategic Goals
    - Strategic goals are long-term in nature and deal with the entity's strategic policies.
    - For example, "Acquire 30% market share of United States automobile industry by 2030."
  - Tactical Goals
    - Tactical goals, on the other hand, are short-term in nature, and these ensure the achievement of strategic goals.
    - For example, "Increase production capacity by 20%."
- Objectives
  - Objectives are the plan of actions and should be specific, measurable, attainable, realistic, and timely (SMART).
  - For example, "Purchase additional machinery that would increase production capacity in the next 6-months."

Forecasting Techniques

- Regression Analysis
  - Regression analysis is a mathematical technique used to predict the value of the dependent variable based upon the value of the independent variable.
  - Regression Equation



  - Multiple R
    - Coefficient of Correlation (R)
    - Measures the degree of linearity in the relationship between two variables
    - Between +1 and -1
      - Perfect Positive Correlation = 1
      - Perfect Negative Correlation = -1
      - No Correlation = 0
  - R-Square
    - Coefficient of Determination
    - Square of Coefficient of Correlation (R2)

        - Measures the effect of changes in one independent variable on another dependent variable
        - Between 1 and 0
            - Higher the value, Higher the explaining power of independent variable
    - Standard Error
        - Measures the accuracy and precision of predictions made using regression equation
    - T-Stat
        - Relationship of independent variable relative to dependent variable
            - Substantial and Long-Term Relationship
            - T-Stat of 2 or More is Significant, while 3 or More is Preferred
    - Advantages of Regression Analysis
        - Simplicity
        - Multiple Data Points
    - Disadvantages of Regression Analysis
        - Effect of Outliers
        - Assumption of Linearity
- Learning Curve Analysis
    - Graphic representation of relationship between productivity and experience
    - Useful for forecasting & budgeting labor costs
    - Learning Curve represents that people are much slower at performing a task for the first time, than they would be performing it for the 100th time
    - Cumulative Average-Time Learning Model
        - Learning curve applies at the average time taken to manufacture the product
        - Average time declines as production doubles
    - Advantages of Learning Curve Analysis
        - Accuracy

        - Planning
    - Disadvantages of Learning Curve Analysis
        - Constant Learning Rate
        - Relevance

- Expected Value Analysis
    - Prediction technique using the probability distribution
    - Allows Managers to make Decisions Resulting in Highest Expected Profit or Lowest Expected Loss
    - $Expected\ Value = \Sigma\ X \text{ x } P(X)$
    - Advantages of Expected Value Analysis
        - Multiple Scenarios
        - Simplicity
    - Disadvantages of Expected Value Analysis
        - Based on Estimates
        - Not the Most Likely Outcome

- Other Forecasting Tools
    - Sensitivity Analysis
        - Analysis of What-If Scenarios to Evaluate Possible Outcomes
        - Financial Estimate of Sensitivity of Scenarios to Change in Circumstances
        - Use of Probability Theory
            - Firms can Prepare for the Worst Case, Best Case &Most Likely Scenario
    - Time Series Analysis and Smoothing
        - Time Series Analysis
            - Trend Analysis
            - Measures Variables against Time

        - Time is the Independent Variable
    - Smoothing
        - Part of Time Series Analysis
        - Smoothening out random & uncertain fluctuations from the irregular components of a time series
- Decision Tree Analysis
    - Allows managers to choose outcome with highest expected payoff
    - Each Possible Outcomes = Branches of a Tree
    - Expected Payoff = Possible Payoff x Probability
- Monte-Carlo Simulations
    - Computer-Based Statistical Technique
    - Runs multiple simulations and generates values for a random variable at various probability distribution

Budgeting Methodologies

- A Budget may be defined as a plan for future operations expressed in dollars or units, or both.
- Master Budgets
    - A Master Budget provides a blueprint for the organization.
    - A Master Budget is divided into two parts (Operating Budgets and Financial Budgets), which include all of the following budgets from various functions:

Operating Budgets	Financial Budgets
Sales Budget	Cash Budget
Production Budget	Capital Budget
Direct Materials Budget	
Direct Labor Budget	
Overhead Budget	
Cost of Goods Sold Budget	
Selling and Administrative Expense Budget	

- Flexible Budgeting
  - Flexible Budgets
    - Based on Actual Level of Output
    - Provides for Better Comparison with Actual Costs
  - Preparation
    - Budgeted Rates x Actual Level of Activity
  - Example
    - Direct Materials Budget with 100,000 Units at a Standard Cost of $2 per Unit. Actual Production was 80,000 units at of $2.1 per unit

	Static Budget	Flexible	Actual
Units	100,000 units	80,000 units	80,000 units
Cost per Unit	$2	$2	$2.1
Total Direct Material Cost	$200,000	$160,000	$168,000

  - Benefits
    - Allows Estimation of Income at More than One Level of Output
    - As an Evaluation Tool allows for Fair Comparison
    - As an Evaluation Tool allows for Easy Variance Analysis
- Continuous (Rolling) Budgeting
  - Additional period added at the end of each budgeting period
    - Ensure sufficient number of periods planned
    - Constantly updates budget to the constantly changing operating environment
  - Benefits of Continuous Budgeting
    - Allows for Increased Alignment of Short-Term Goals with Long-Term Strategy
    - More relevant and updated budgets, increases the effectiveness of operations
    - Budgeting is broken into smaller, more manageable parts

- Zero-Based Budgeting
    - Starts from Scratch
    - Forward-Looking
    - Focused on Constant Cost Justification
    - Classifies Budget Requests on the Basis of Benefits Arising from Each activity
- Incremental Budgeting
    - Incremental changes made to prior period’s budget
    - Changes are based on preceding year's results & future year's expectations
- Activity-Based Budgeting
    - Budgeting Technique
        - Budgets are prepared using activity-based costing
        - Overhead allocation using multiple cost drivers
    - Advantages
        - Increased Budget Accuracy
        - Judicious Consumption of Common Resources
    - Disadvantages
        - Expensive
        - Estimation Errors
- Project Budgeting
    - Budgeting for specific projects or assignments
    - Treated as a separate entity
    - All costs are tracked independently from rest of the organization
- Life-Cycle Budgeting
    - Life-Cycle Budgeting focuses on individual products and attempts to budget the costs of the product over the entire life cycle from research and development to customer support.

Operating Budget

- Sales Budget
    - The first step in the budgeting process (given the goals and policies of operation) is to forecast the level of sales for the budget period.
    - Sales budget is calculated: Forecasted Units x Forecasted Price
    - Example
        - Ninja Company, which is preparing the upcoming quarter budget (January-March), projected the following sales figures. Prepare the sales budget:

Month	Forecasted Units	Forecasted Sales Price ($)	Budgeted Sales ($)
December	10,000	$50	$500,000
January	12,000	$50	$600,000
February	15,000	$50	$750,000
March	18,000	$60	$1,080,000
April	20,000	$60	$1,200,000
May	22,000	$60	$1,320,000

Budgeted Sales (January, February & March)	$2,430,000

- Production Budget
  - The production budget calculates the number of units required to be produced to meet the expected sales targets, usually determined by the sales or marketing departments.

	Units
Opening Inventory	XXX
Add: Production	**XXX**
Less: Cost of Goods Sold	(XXX)
Ending Inventory	XXX

  - Example
    - Ninja Company's policy is to maintain finished goods inventory levels at 30% of the following month's budgeted sales units. Prepare the production budget:

Month	Budgeted Sales Units	Ending inventory (30% of Next Month's COGS)	Opening Inventory (Last Month's Ending Inventory)
December	10,000	3,600	-
January	12,000	4,500	3,600
February	15,000	5,400	4,500
March	18,000	6,000	5,400
April	20,000	6,600	6,000
May	22,000	0	6,600

	January	February	March	April
Opening Inventory	3,600	4,500	5,400	6,000
Add: Production (Balancing Figure)	12,900	15,900	18,600	20,600
Less: Units Sold	(12,000)	(15,000)	(18,000)	(20,000)
Ending Inventory	4,500	5,400	6,000	6,600

Budgeted Production (January, February & March)	47,400 units

- Direct Materials Budget
  - Direct Materials Usage Budget
    - Based on the production budget, the company first determines the units and cost of direct material required for production. This is done using the Direct Material Usage Budget.
    - Direct Materials Usage Budget = Units to be Produced x No. of pounds per Finished Good x Cost per Pound
    - Example
      - Ninja Company requires 2 pounds of direct material to produce 1 unit of finished goods. Each unit of direct material costs $5. Prepare a direct material usage budget.

	January	February	March	April
Production	12,900 units	15,900 units	18,600 units	20,600 units
No. of pounds per Finished Good	2	2	2	2
Pounds of Direct Material Required	25,800	31,800	37,200	41,200
Cost per Pound	$5	$5	$5	$5
Direct Material Cost	$129,000	$159,000	$186,000	$206,000

Budgeted Direct Materials Usage Cost (January, February & March)	$474,000

- Direct Materials Purchase Budget

  - Once the direct material requirement is established, the company determines the number of units of direct materials to be purchased.

	Units
Opening DM Inventory	XXX
Add: Purchase (a)	XXX
Less: Transfers to Production	(XXX)
Ending DM Inventory	XXX
Cost per Pound (b)	XXX
Direct Material Purchase Cost (a x b)	XXX

  - Example

    - Ninja Company's policy is to maintain direct material inventory levels at 20% of the following month's budgeted production units. Prepare the direct material purchase budget.

Month	Direct Material Required (Transfer to Production)	Ending inventory (20% of Next Month's Requirement)	Opening Inventory (Last Month's DM Ending Inventory)
January	25,800 pounds	6,360 pounds	5,160 pounds
February	31,800 pounds	7,440 pounds	6,360 pounds
March	37,200 pounds	8,240 pounds	7,440 pounds
April	41,200 pounds	-	8,240 pounds

	January	February	March
Opening DM Inventory	5,160	6,360	7,440
Add: Purchase (a)	27,000	32,880	38,000
Less: Transfers to Production	(25,800)	(31,800)	(37,200)
Ending DM Inventory	6,360	7,440	8,240
Cost per Pound (b)	$5	$5	$5
Direct Material Purchase Cost (a x b)	$135,000	$164,400	$190,000

Budgeted Direct Materials Purchase Cost (January, February & March)	$489,400

- Direct Labor Budget
  - The production budget will be used to prepare the direct labor budget.
  - This budget indicates the hours and cost of direct labor needed to meet production requirements.
  - Example
    - Ninja Company estimates that it takes 1 hour of labor to assemble a table. The labor rate is $8 per hour. Prepare the direct labor budget.

	January	February	March
Production	12,900 units	15,900 units	18,600 units
Hours Required per unit	1 Hour	1 Hour	1 Hour
Total Hours Required	12,900 Hours	15,900 Hours	18,600 Hours
Cost per Hour	$8	$8	$8
Direct Labor Cost	$103,200	$127,200	$148,800

Budgeted Direct Labor Cost (January, February & March)	$379,200

- Overhead Budget
  - Overhead Budget is usually divided into Fixed and Variable Costs.
  - Overheads can be allocated based on direct labor hours/machine hours or applied using activity-based costing.
  - Example
    - Ninja Company applies variable overheads based on direct labor hours at the rate of $3 per hour. The fixed overhead rate is $100,000 per month. Prepare the overhead budget.

	January	February	March
Variable Overhead			
Total Hours Required	12,900 Hours	15,900 Hours	18,600 Hours
Variable Overhead Rate per DL Hour	$3	$3	$3
Total Variable Overhead	$38,700	$47,700	$55,800
Fixed Overhead			
Total Fixed Overhead	$100,000	$100,000	$100,000
Total Overhead	$138,700	$147,700	$155,800

Budgeted Overhead (January, February & March)	$442,200

- Cost of Goods Sold Budget
  - Cost of Goods Sold Budget presents the total cost of producing the product sold for a period.

		$$
Opening Finished Goods Inventory (Given)		XXX
Add: Direct Materials (From Direct Material Usage Budget)		
Add: Direct Labor (From Direct Labor Budget)	XXX	
Add: Overheads (From Overheads Budget)	XXX	
Cost of Goods Manufactured		**XXX**
Cost of Goods Available for Sale		**XXX**
Less: Ending Finished Goods Inventory (Calculated)		(XXX)
Cost of Goods Sold		**XXX**

  - Example
    - Ninja Company's opening finished goods inventory was valued at $68,000. Prepare the cost of goods sold budget.

(January – March)		$$
Opening Finished Goods Inventory (Given)		$68,000
Add: Direct Materials (From Direct Material Usage Budget)	$474,000	
Add: Direct Labor (From Direct Labor Budget)	$379,200	
Add: Overheads (From Overheads Budget)	$442,200	
Cost of Goods Manufactured		**$1,295,400**
Cost of Goods Available for Sale		**$1,363,400**
Less: Ending Finished Goods Inventory (Calculated)		($162,000)
Cost of Goods Sold		**$1,201,400**

    - Ending finished goods inventory can be calculated as follows:
      - Total cost of goods manufactured = $1,295,400
      - Units manufactured (12,900 + 15,900 + 18,600) = 47,400 units
      - Cost per unit = $27
      - Ending finished goods inventory (6,000 units x $27) = $162,000

- Selling, General, and Administrative (SG&A) Expense Budget
    - Selling, General, and Administrative (SG&A) expense refers to period costs expensed in the period incurred.
    - These are non-manufacturing expenses that could be both fixed or variable.
    - Example
        - Prepare Ninja Company's SG&A Expense Budget.

	$$
Salaries	$200,000
Insurance	$200,000
Rent	$50,000
Advertising	$100,000
Total Selling, General & Administrative (SG&A) Expense	$550,000

- Pro Forma Income Statement
    - Budgeted Income Statement
    - Prepared Based on Sales Budget, Production Budget, Direct Materials Budget, Direct Labor Budget, Overhead Budget and Selling, General and Administrative Expenses Budget
    - Analyzed by top Management to Determine the Alignment with Objectives and Goals
    - Example

Sales (From Sales Budget)	$2,430,000
Less: Cost of Goods Sold (From Cost of Goods Sold Budget)	($1,201,400)
Gross Profit	$1,228,600
Less: SG&A Expense (From SG&A Budget)	($550,000)
Operating Profit	$678,600
Less: Taxes (30%)	($203,580)
Net Income	$475,020

- Cash Budget
  - Calculates the effect of all budgets on Cash
  - Prepared for the near future
  - Forecasts the Cash Outflows and Inflows of a Firm
  - Useful in the planning process for determining
    - Expected Sources and Uses of Funds
    - Availability of Funds for Investment Purposes
    - Need for External Financing
    - Availability of Funds for the Repayment of Debt
    - Availability of Funds for Distribution to Owners
  - Example
    - 30% is Cash sales, and Balance is Credit Sales. Cash Collection for Credit Sales is as follows:
      - 30% in Month of Sale
      - 40% in the month following the Month of Sale
      - 25% in the Second Month following the Month of Sale
      - 5% is uncollectible
    - 50% is Cash Purchases, and Balance is Credit Purchases. Cash Payment for Credit Purchase is as follows:
      - 60% in Month of Purchase
      - 40% in the month following the Month of Purchases
    - Operating Expenses, 80% of Operating Expenses are cash expenses and are paid in arrears.
    - Sales, Purchase and Operating Expenses information is given below:

	November	December	January	February	March
Sales	$100,000	$110,000	$120,000	$130,000	$140,000
Purchase	$40,000	$50,000	$60,000	$70,000	$80,000
Operating Expense	$30,000	$40,000	$50,000	$60,000	$70,000
Insurance					$30,000

- Using this information prepare Cash Budget

	January	February	March
Total Sales	$120,000	$130,000	$140,000
Cash Sales (30% of Total Sales) (a)	$36,000	$39,000	$42,000
Credit Sales (70% of Total Sales)	$84,000	$91,000	$98,000
Cash Collection:			
30% in the Month of Sales (b)	$25,200	$27,300	$29,400
40% in Month following the Month of Sale (c)	$30,800	$33,600	$36,400
25% in the Second Month following the Month of Sale (d)	$17,500	$19,250	$21,000
Total Cash Receipts (A) = (a) + (b) + (c) + (d)	**$109,500**	**$119,150**	**$128,800**
Total Purchases	$60,000	$70,000	$80,000
Cash Purchases (50% of Total Purchases) (a)	$30,000	$35,000	$40,000
Credit Purchases (50% of Total Purchases)	$30,000	$35,000	$40,000
Cash Payment:			
60% in the Month of Purchase (b)	$18,000	$21,000	$24,000
40% in Month following the Month of Purchase (c)	$10,000	$12,000	$14,000
Operating Expense (d)	$32,000	$40,000	$48,000
Insurance (e)			$30,000
Total Cash Receipts (B) = (a) + (b) + (c) + (d) + (e)	$90,000	$108,000	$156,000
Cash Surplus (Deficit) (A) – (B)	$19,500	$11,150	($27,200)

- Pro Forma Balance Sheet
  - Calculates the estimated Financial Position of a company
  - Illustrates the effect of budgeting on components of Balance Sheet
- Pro Forma Statement of Cash Flows
  - Last Budget to be Prepared
  - Converts accrual-based Budgeted Income Statement and Balance Sheet into cash-based Information.

NINJA BOOK

Tax Compliance & Planning
2024

Property Taxation

(July 1, 2024 – June 30, 2025 Exams)

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This book is written to provide accurate and authoritative information concerning the covered topics for the Uniform CPA Examination and is to be used solely for studying for the Uniform CPA Examination and for no other purpose.

Property Taxation

Basis of Assets

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II. Basis & Holding Period of Assets Received as Inheritance
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Basis of Assets

Basis of Assets

Basis of Assets

Basis of assets refers to the value of an asset for tax purposes. The basis of an asset can vary depending on how it was acquired. In this topic we will learn to calculate the basis of assets in the following scenarios:

- Basis of Assets Purchased.
- Basis of Assets Received as Inheritance.
- Basis of Assets Received as Gift.

Adjusted Basis of Assets

The original cost basis of property is increased by any capital expenditures (capital improvements) made to the property and decreased by any depreciation, amortization, or depletion deductions allowed or allowable. This is referred to as adjusted basis of the asset. It is used to determine gains or losses upon the asset's sale, exchange, or disposal.

I. Basis & Holding Period of Assets Purchased

Basis and Holding period of assets purchased is computed as follows:

	Basis	Holding Period
Asset Purchased	Basis of Asset Purchased is calculated as follows: Cost of Purchase: XXX Add: Debt Assumed: XXX Add: Other Expense: XXX Add: Capital Improvement: XXX **Basis of Asset Purchased: XXX**	Date of Acquisition until the Date of Sale.

II. Basis & Holding Period of Assets Received as Inheritance

Basis and Holding period of assets purchased is computed as follows:

	Basis	Holding Period
Asset Received as Inheritance	FMV of the asset on the date of the original owner's death. or FMV on an Alternate Valuation Date (if elected). Alternate Valuation Date is the earlier of: • Six months after the date of death or • The date of distribution or sale of the asset.	Always Long-Term

III. Basis & Holding Period of Assets Received as Gift

When an asset is received as a gift, the Basis of the asset to the recipient depends on whether the Fair Market Value (FMV) of the asset at the time of the gift is higher or lower than the Donor's Original Basis. The Basis and Holding period of an asset received as gift is computed as follows:

<table>
<tr><th></th><th></th><th>Basis</th><th>Holding Period</th></tr>
<tr><td>On Date of Gift:
Basis < FMV (Built-in Gains)</td><td></td><td>Donor's Carryover Basis</td><td>Donor's Carryover Holding Period

(Donor’s Holding Period + Donee’s Holding Period)</td></tr>
<tr><td rowspan="3">On Date of Gift:
Basis < FMV (Built-in Gains)</td><td>Case 1:
Sales Price > Donor's Basis > FMV at Date of Gift</td><td>Donor’s Carryover Basis

Therefore, Gain would be recognized as follows:

<table><tr><td>Sales Price</td></tr><tr><td>(Donor’s Basis)</td></tr><tr><td>Capital Gain</td></tr></table></td><td>Donor's Carryover Holding Period

(Donor’s Holding Period + Donee’s Holding Period)</td></tr>
<tr><td>Case 2:
Donor's Basis > Sales Price > FMV at Date of Gift</td><td>Sales Price

Therefore, No Gain or Loss would be recognized.</td><td>Donor's Carryover Holding Period

(Donor’s Holding Period + Donee’s Holding Period)</td></tr>
<tr><td>Case 3:
Donor's Basis > FMV at Date of Gift > Sales Price</td><td>FMV at Date of Gift

Therefore, Loss would be recognized as follows:

<table><tr><td>Sales Price</td></tr><tr><td>(FMV at Date of Gift)</td></tr><tr><td>Capital Loss</td></tr></table></td><td>Donee’s Holding Period</td></tr>
</table>

IV. Basis & Holding Period of Assets Converted from Personal-Use to Business-Use

The Basis and Holding period of assets converted from personal-use to business-use is computed as follows:

	Basis	Holding Period
Asset Converted from as Personal-Use to Business Use	Lower of: • Adjusted Basis of Asset • FMV of Asset on Date of Conversion	Holding Period begins from date asset was acquired for personal use.

Capital Gains & Losses: Calculation And Treatment

Capital Gains & Losses: Calculation And Treatment

Capital Gains and Losses are classified as either Short-Term or Long-Term:

- **Short-Term Capital Gains and Losses:** Short-Term Capital Gains and Losses result from the sale or exchange of capital assets held for one year or less.
- **Long-Term Capital Gains and Losses:** Long-Term Capital Gains and Losses result from the sale or exchange of capital assets held for more than one year.

I. Calculation of Capital Gains and Losses: Individuals and Corporations

Capital Gains and Losses for Individuals and Corporations are calculated the same way as follows:

Proceeds →	Cash Received Property Received (FMV) Services Received (FMV) Cancellation of Debt Selling Expenses
<Adjusted Basis of Assets Sold>	
Capital Gain or Loss Realized →	Holding Period > 1 Year (Long-Term Capital Gain or Loss) Holding Period < 1 Year (Short-Term Capital Gain or Loss)

II. Netting Process for Capital Gains and Losses: Individuals and Corporations

The netting process for Short-Term and Long-Term Capital Gains and Losses for individuals and corporations is the same. The netting process for Short-Term and Long-Term Capital Gains and Losses involves two steps:

- **Step 1: Net Short-Term Gains and Losses together, and Long-Term Gains and Losses together**
    - Combine all Short-Term Capital Gains and Losses, resulting in either a Net Short-Term Capital Gain or a Net Short-Term Capital Loss.

Short-Term Capital Gain
(Short-Term Capital Loss)
Net Short-Term Capital Gain / (Net Short-Term Capital Loss)

    - Combine all Long-Term Capital Gains and Losses, resulting in either a Net Long-Term Capital Gain or a Net Long-Term Capital Loss.

Long-Term Capital Gain
(Long-Term Capital Loss)
Net Long-Term Capital Gain / (Net Long-Term Capital Loss)

- **Step 2: Net Short-Term Gains and Losses with Long-Term Gains and Losses if opposite signs or else no netting.**
    - If one is a net gain and the other is a net loss, net them together. This will result in either a single net Short-Term Capital Gain/Loss or a Single Net Long-Term Capital Gain/Loss.

Net Short-Term Capital Gain
(Net Long-Term Capital Loss)
Net Short-Term Capital Gain

(Net Short-Term Capital Loss)
Net Long-Term Capital Gain
Net Short-Term Capital Loss

Net Long-Term Capital Gain
(Net Short-Term Capital Loss)
Net Long-Term Capital Gain

(Net Long-Term Capital Loss)
Net Short-Term Capital Gain
Net Long-Term Capital Loss

    - If both are gains or both are losses, do not net them together. In this case, you will have either:
        - Net Short-Term Capital Gain and Net Long-Term Capital Gain.
        - Net Short-Term Capital Loss and Net Long-Term Capital Loss.

III. Tax Treatment of Capital Gains and Losses

Tax Treatment of Capital Gains and Losses: Individuals

- **Capital Gains**: Short-Term Capital Gains are taxed at an individual's ordinary income tax rates, while Long-Term Capital Gains are taxed at lower capital gain tax rates (0%, 15%, 20%).

- **Capital Losses**: Both Net Short-Term and Long-Term Capital Losses can be set off against other sources of income up to certain limits ($3,000 for married filing jointly and single filers, $1,500 for married filing separately) each year, with excess amounts carried forward indefinitely.

Type	Tax Treatment
Net Short-Term Capital Gain	• Short-Term Capital Gains are taxed at Ordinary Income Tax Rates.
Net Short-Term Capital Loss	• Set off Net Short-Term Capital Loss from other sources of income up to $3,000 (MFJ & Single) & $1,500 (MFS) every year. • Excess carried forward indefinitely.
Net Long-Term Capital Gain	• Long-Term Capital Gains are taxed at Capital Gain Tax Rates (0%, 15%, 20%).
Net Long-Term Capital Loss	• Set off Net Long-Term Capital Loss from other sources of income up to $3,000 (MFJ & Single) & $1,500 (MFS) every year. • Excess carried forward indefinitely.

Tax Treatment of Capital Gains and Losses: Corporations

- **Capital Gains**: Both Net Short-Term and Long-Term Capital Gains are taxed at Ordinary Corporate Income Tax Rates.

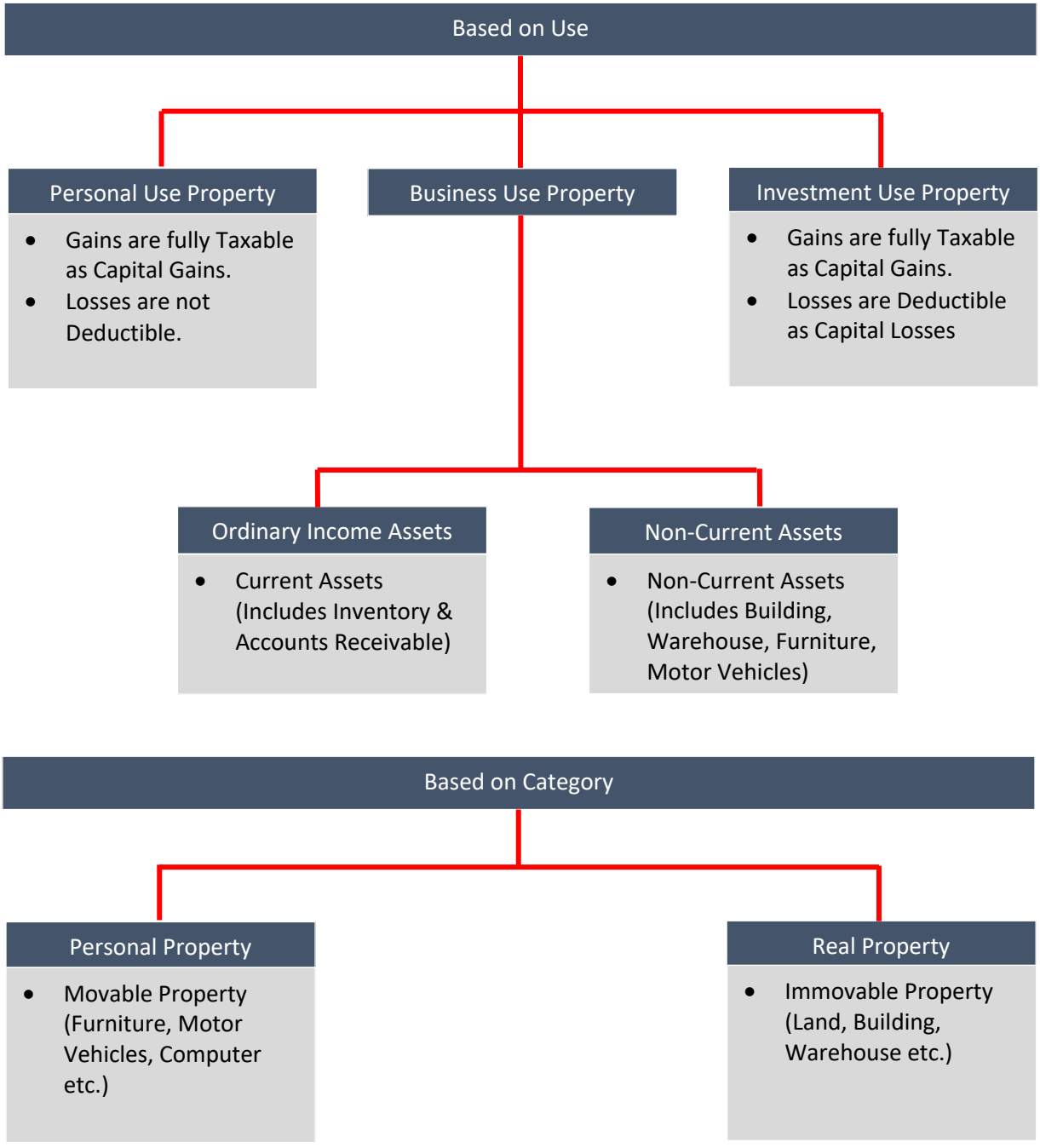
- **Capital Losses**: Both Net Short-Term and Long-Term Capital Losses may be deducted only to the extent of the Capital Gain during the year. Excess Losses can be carried back 3 years and carried forward 5 years.

Type	Tax Treatment
Net Short-Term Capital Gain	• Short-Term Capital Gains are taxed at Ordinary Corporate Income Tax Rates
Net Short-Term Capital Loss	• Short-Term Capital Loss may be deducted only to the extent of the Capital Gain during the year. • Net Short-Term Capital Losses not allowed as a deduction can be carried back 3-years and carried forward 5-years.
Net Long-Term Capital Gain	• Long-Term Capital Gains are taxed at Ordinary Corporate Income Tax Rates
Net Long-Term Capital Loss	• Long-Term Capital Loss may be deducted only to the extent of the Capital Gain during the year. • Net Long-Term Capital Losses not allowed as a deduction can be carried back 3-years and carried forward 5-years.

Types of Property

Types of Property

Below is a breakdown of property types based on their character and use for this purpose:



Situations when Capital Gain is Realized but not Recognized

Situations when Capital Gain is Realized but not Recognized

There are a few exceptions when a capital gain may be realized but not subject to taxation.

I. Homeowners Exclusion

- The Gain on the Sale of a Personal Residence is subject to exclusion of $250,000 (Single) or $500,000 (MFJ).

- The following two criteria must be met:
  - Owned and used the home as principal residence for at least 2 of the previous 5 years.
  - May use the exclusion multiple times over lifetime but not more than once every 2 years.

- No Loss is deductible on the Sale of Personal Residences.

II. Involuntary Conversion

- Involuntary Conversion occurs when property is destroyed, stolen, or condemned and taxpayers receive insurance or condemnation award.

- Gain from an involuntary conversion of a taxpayer's property may be deferred if the property is replaced within the statutory time limits. The deferred/unrecognized gain reduces the basis of the new replacement property.

- The time limit for replacement is measured by calendar year, so the actual date for replacement is always December 31 from the year in which the proceeds are received. Time Limits are as follows:

Destruction or theft of property resulting in Insurance Recovery	2 Years
Government condemnation or Eminent Domain Award	3 Years
Conversion in connection with a declared federal disaster	4 Years

- Taxable Gain, Deferred Gain and Basis of New Asset is calculated as follows:

  - **Proceeds are fully Invested:** When proceeds are fully reinvested in the new property, the entire gain is deferred. The deferred/unrecognized gain reduces the basis of the new replacement property.

Proceeds from Involuntary Conversion (Basis of the Old Asset) Gain on Involuntary Conversion	→	Deferred
Cost of New Asset (Gain on Involuntary Conversion) **Basis of New Asset**	→	Reduces basis of the New Asset

- **Proceeds are partially Invested:** When proceeds are not fully reinvested in the new property, the gain is taxed/recognized to the extent of the uninvested amount and the balance is deferred. The deferred/unrecognized gain reduces the basis of the new replacement property.

Proceeds from Involuntary Conversion
(Basis of the Old Asset)
Gain on Involuntary Conversion

Proceeds from Involuntary Conversion
(Cost of New Asset)
Uninvested Amount

→ Taxable Gain Lower of:
- Gain on Involuntary Conversion
- Uninvested Amount

Gain on Involuntary Conversion
(Taxable Gain)
Deferred Gain

Cost of New Asset
(Deferred Gain)
Basis of New Asset

- However, losses on destruction of personal property are not deductible except as a part of casualty loss for individuals in Schedule A.

III. Divorce Property Settlements

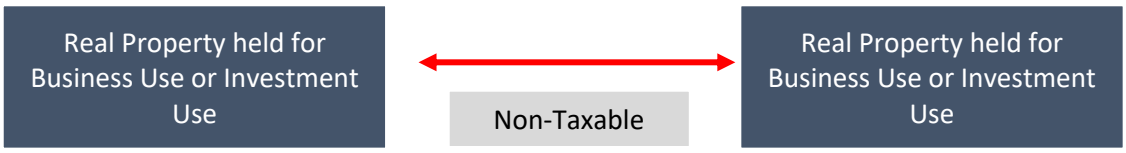
- Property settlements in divorce are not taxable events. This means that when property is transferred between spouses as part of a divorce settlement, there is no immediate tax liability for either party. The recipient spouse typically assumes the same basis (the value or cost of the property for tax purposes) as the transferring spouse had before the transfer.

- This is because property transfers between spouses or ex-spouses as part of a divorce settlement are usually treated as a division of property rather than a sale or exchange, so no gain or loss is recognized for tax purposes.

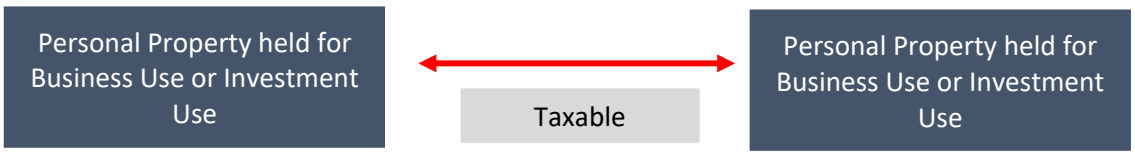
IV. Exchange of Like-Kind Assets

- A like-kind exchange is an exchange of property of the same nature or character. A Gain or Loss on the exchange of Like-Kind Assets is not recognized under Section 1031.

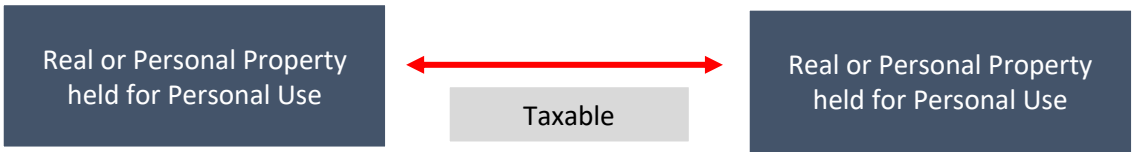
  - A Gain or Loss on an exchange of Real Assets held for Business Use or Investment Use is not recognized.



  - The like-kind exchange rules do not apply to personal property, inventory, and financial assets.



  - The like-kind exchange rules do not apply to real or personal property held for personal use.



- In a like-kind exchange, the basis of the property being acquired (new property) is the same as the basis of the property being relinquished (old property).

  ⇒ Basis of New Property = Adjusted Basis of Old Property

  This can be best calculated with the Journal Entry approach as follows:

Basis in New Property		Plug	
Accumulated Depreciation		XXX	
	Basis in Old Property		XXX

- However, there is an exception to the Like-Kind Exchange Rule, if the boot is received as part of the like-kind exchange, then the gain is recognized to the extent of the lesser of the gain realized or the boot received. Boot includes cash, unlike property, debt relief in excess of debt assumed. A loss is not recognized.

  Gain Recognized is lesser of:

  ⇒ Gain Realized = FMV of Property Received + FMV of Boot Received – Basis of Property Given Up.
  or
  ⇒ Boot Received

- Basis in New Property in case of Boot Received is calculated as follows:

  ⇒ Basis of New Property = Adjusted Basis of Old Property + Gain Recognized + Boot Given – Boot Received.

  This can be best calculated with the Journal Entry approach as follows:

Basis in New Property		Plug	
Cash		XXX	
Debt (Debt Relief)		XXX	
Accumulated Depreciation		XXX	
	Basis in Old Property		XXX
	Debt (Debt Assumed)		XXX
	Gain		XXX

V. Installment Sale

- An installment sale refers to the disposition of property where at least one payment is to be received after the year of the sale. In an installment sale made by a non-merchant in personal property and non-dealer in real estate, the seller does not recognize all of the gain (or loss) from the sale immediately. Therefore, Gain is reported over the period in which the cash payments are received.

- A Gain on an Installment Sale for tax purposes is calculated as follows:

  ⇒ Gross Profit = Sales Price – Basis
  ⇒ Gross Profit % = Gross Profit / Sales Price
  ⇒ Taxable Gain = Payment Received x Gross Profit %

VI. Stock Transactions

- A Gain or Loss on certain stock transactions is not recognized for tax purposes.
    - **Issue of stock by Corporation:** When a corporation issues stock, no gain or loss is recognized by the corporation.
    - **Repurchase of stock by Corporation:** When a corporation repurchases its own stock from a shareholder, no gain or loss is recognized by the corporation.
    - **Reissue of stock by Corporation:** If a corporation reissues stock that it previously repurchased, generally no gain or loss is recognized by the corporation or the shareholder at the time of reissue. The shareholder's basis in the reissued stock is usually the same as their basis in the repurchased stock.
    - **Stock Splits:** A stock split is a corporate action that increases the number of shares outstanding while proportionally reducing the price per share. Stock splits are typically implemented to adjust the share price and increase market liquidity. Stock splits are generally taxable events for shareholders or the corporation.
    - **Stock Dividends:** Stock dividends are additional shares of stock distributed by a corporation to its shareholders. They are typically proportional to the number of shares owned by each shareholder. Stock dividends are generally not taxable to the recipient shareholders and the basis of the original stock is allocated proportionally between the original stock and the dividends received.
        - However, if there is an option to receive cash instead of the stock dividend, the transaction is taxable, even if the stock dividend is received.

VII. Investment in Qualified Opportunity Funds

- Qualified Opportunity Funds are investment funds that invest in properties in Opportunity Zones. Opportunity Zones are economically distressed communities where the US Government intends to spur economic development and job creation. These zones are typically low-income communities across the country.
- Taxpayers may elect to defer their capital gains if the capital gains are re-invested into a Qualified Opportunity Fund within 180 days from capital gain. Only the gain needs to be reinvested not the proceeds.
- The Gain will be deferred, and the Basis in the Qualified Opportunity Fund would be reduced by the gain deferred.

Cost of Qualified Opportunity Fund
(Capital Gain Deferred)
Basis in Qualified Opportunity Fund

- Investors will receive a step-up in basis if the investment is held for a certain number of years:
    - Held for 5 Years or More: Basis increased by 10% of Capital Gain Deferred.
    - Held for 7 Years or More: Basis Increased by an additional 5% of Capital Gain Deferred.

- Held for 10 Years or More: No Tax on Post Acquisition Appreciation of the Qualified Opportunity Fund.

Situation	Summary
Homeowners Exclusion	• Gain on the sale of a personal residence can be excluded $250,000 (Single) or $500,000 (MFJ). • Losses on sale of personal residences are not deductible.
Involuntary Conversion	• Gain from an involuntary conversion can be deferred if the property is replaced within specific time limits. • Losses on destruction of personal property are generally not deductible.
Divorce Property Settlements	• Property settlements in divorce are not taxable events.
Exchange of Like-Kind Assets	• Gain or loss on the exchange of Like-Kind Real Assets held for Business use or Investment Use is not recognized. (Exception when Boot is Received). • Does not apply to Personal property held for Business use or Investment Use and Personal Use Assets.
Installment Sale	• Gain on an installment sale is reported over the period in which cash payments are received.
Stock Transactions	• Gain or loss on certain stock transactions, such as stock issuances, repurchases, reissues, stock splits, and stock dividends are not recognized for tax purposes.
Investment in Qualified Opportunity Funds	• Capital gains can be deferred by investing in Qualified Opportunity Funds within specific time limits. Basis in the fund is reduced by the deferred gain.

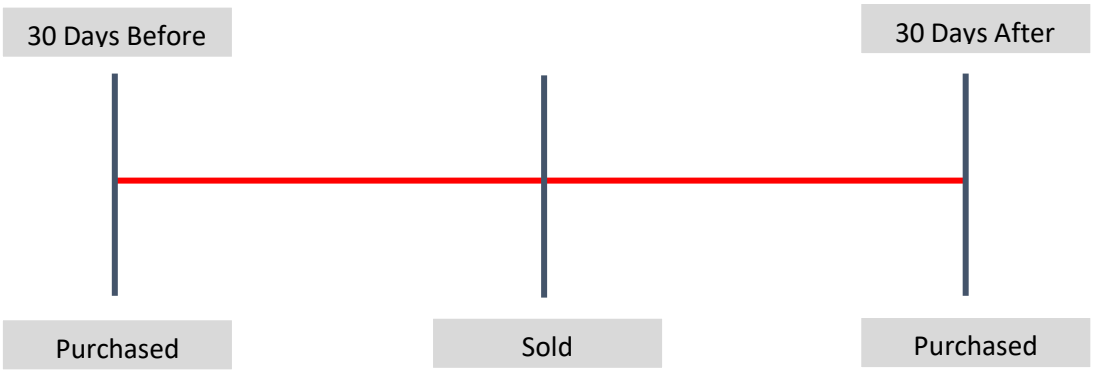
Situations when Capital Loss is Realized but not Deductible

Situations when Capital Loss is Realized but not Deductible

There are a few exceptions when a capital loss may be realized but not deductible.

I. Wash Sale Loss

- Wash Sale Losses occur when taxpayers sell stocks/securities at a loss while purchasing identical stock/securities within 30 days before or after the sale date.



- Losses on Wash Sales are disallowed and are added to the cost basis of the newly acquired security. The wash sale rule is designed to prevent taxpayers from claiming artificial or "wash" losses for tax purposes.
  -

Proceeds	XXX
Less: Basis	(XXX)
Loss	**(XXX)**

→ Loss Disallowed

Cost of New Stock	XXX
Add: Loss Disallowed	(XXX)
Basis in New Stock	**(XXX)**

→ Disallowed Losses Increases Basis

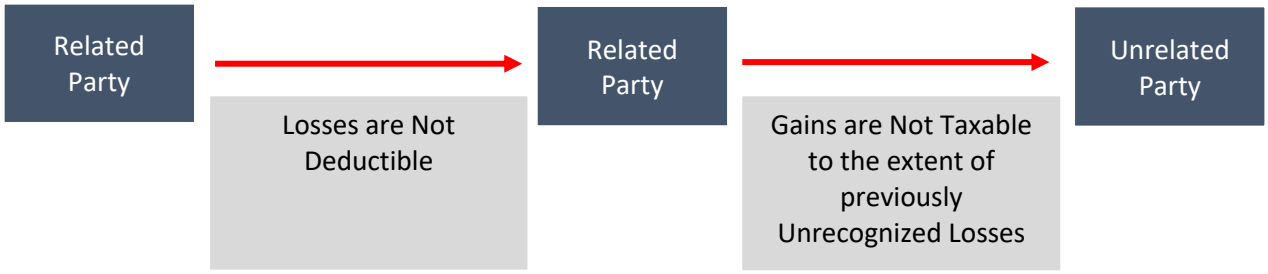
- Gains on wash sales are fully taxable.

II. Loss on Sale of Personal Use Assets

- No deduction is allowed on the disposal of Personal Use Assets. However, Gains are Taxable.

III. Related Party Transactions

- Losses from Related Party property transactions are not deductible. Future Gains from this property are not taxable to the extent of previously unrecognized losses.



- Gains on related party property transactions are fully taxable.

- Related parties include:

  - **Individual:** Related parties for Individuals include the taxpayer's spouse, siblings, parents, grandparents, ancestors, and descendants. Related parties for Individuals do not include uncle, aunt, nephew, niece, cousin or in-laws.
  - **Corporations:** Related parties for Corporations include the majority shareholder and entities under common control.
  - **Partnerships:** Related parties for partnerships include the majority partner.

Situation	Summary
Wash Sale Losses	• Losses are disallowed and added to basis • Gains are fully taxable
Loss on Sale of Personal Use Assets	• Losses are not deductible • Gains are fully taxable
Related Party Transactions	• Losses are not deductible but future gains are not taxable to the extent of previously unrecognized losses • Gains are fully taxable

Gain or Loss on Sale of Section 1244 and Section 1202 Stocks

Gain or Loss on Sale of Section 1244 and Section 1202 Stocks

I. Section 1244 Stocks

- Section 1244 provides tax benefits to shareholders of start-ups and small businesses. It exists to incentivize investment in small businesses and start-ups.

- Section 1244 allows individual taxpayers to deduct losses from the sale or worthlessness of the stock as ordinary losses rather than capital losses. Ordinary losses have a higher tax benefit as they can be fully deducted against ordinary income, while capital losses are subject to limitations whereas Gains are taxed as capital gains and subject to lower income tax rates.

- To qualify as Section 1244 stock, the stock must meet the following criteria:

    - The stock must be issued by a domestic small business corporation. A small business corporation is a corporation that has a total capitalization of $1 million or less at the time the stock is issued.
    - The stock must be issued directly to a non-corporate shareholder i.e. individual or to a partnership composed solely of individuals who originally purchased shares for cash or property. It cannot be acquired from another shareholder or through a stock exchange.

- Gain or Loss on Sale of Section 1244 Stock is treated as follows for tax purposes:

    - Gains are taxed as a Capital Gain and subject to lower income tax rates.
    - Losses up to $50,000 (Single) & $100,000 (MFJ) will be treated as an Ordinary Loss and the balance would be treated as Capital Losses.

II. Section 1202 Stocks

- Section 1202 provides tax benefits for investments in qualified small business stock. Section 1202 allows original non-corporate shareholders who hold qualified small business stock for more than 5 Years to exclude up to 100% of the gain on sale of small business stock.

- To qualify as a Section 1202 stock, the stock must meet the following criteria:

    - Applies to stocks in C-Corporations having gross assets of $50,000,000 or less as of date of stock issuance.
    - Shareholders must be a non-corporate, i.e., either an Individual or Partnership who originally purchased shares for cash or property.
    - Shareholders must have held the stock for at least 5 Years or more.

- Gain or Loss on Sale of Section 1202 Stock is treated as follows for tax purposes:

    - Losses are treated as Capital Losses.
    - Gains on the Sale of Section 1202 stock would be excluded as follows:
        - 50% of the Gain is excluded for stock acquired between 8/11/1993 - 2/17/2009
        - 75% of the Gain is excluded for stock acquired between 2/18/2009 - 9/27/2010
        - 100% of the Gain is excluded for stock acquired after 9/27/2010

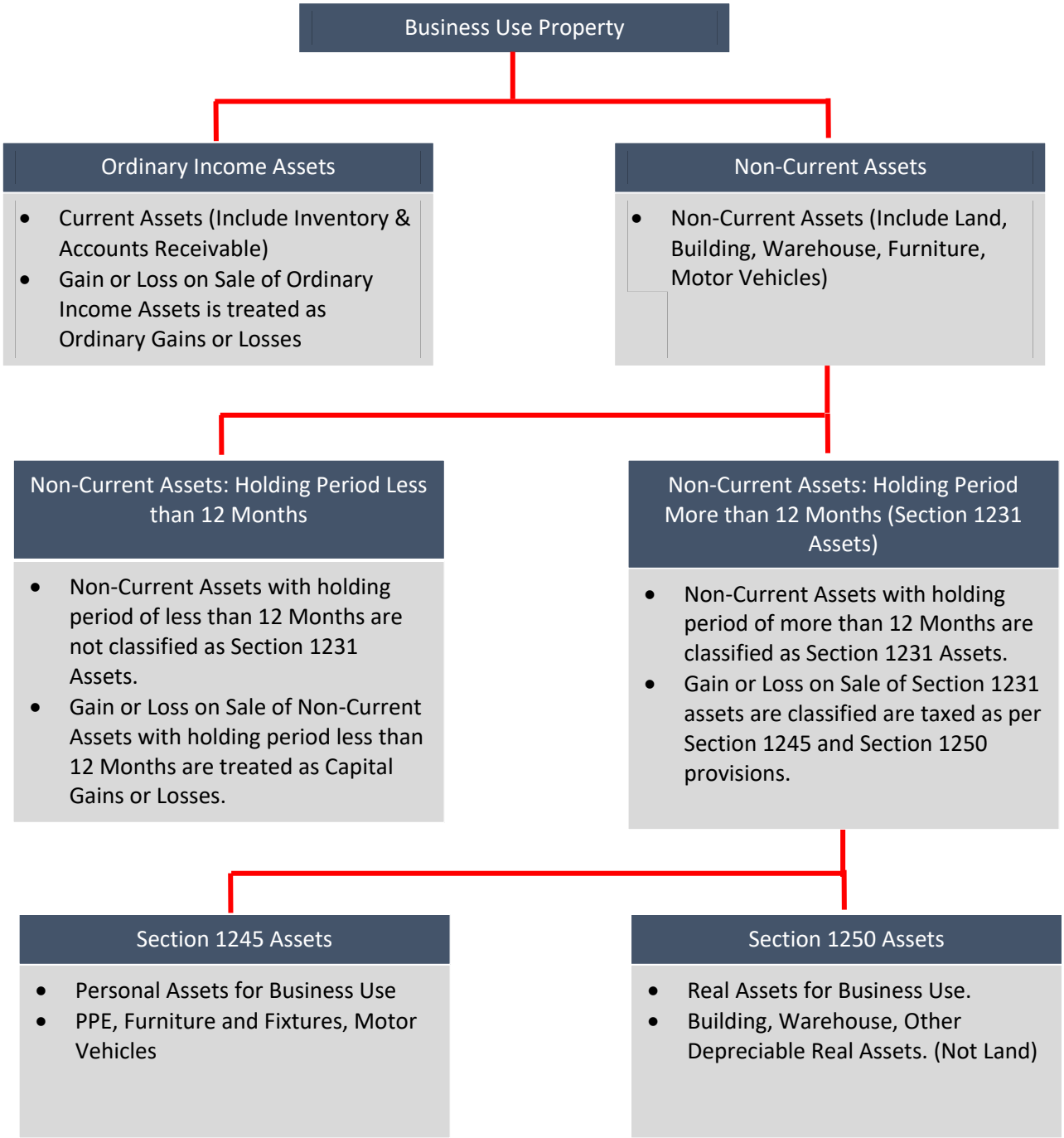
    However, the Gain exclusion is limited to lesser of:
        - $10,000,000
        - 10 times the taxpayer's adjusted basis in the Stock

Situation	Summary
Section 1244 Stocks	• Gains are taxed as Capital Gain and subject to lower income tax rates. • Losses up to $50,000 (Single) & $100,000 (MFJ) will be treated as Ordinary Loss and the balance would be treated as Capital Losses.
Section 1202 Stocks	• Losses are treated as Capital Losses. • Gains on Sale of Section 1202 stock would be excluded up to 100%

Gain or Loss on Sale of Business Property

Gain or Loss on Sale of Business Property

Business property is classified as follows:



I. Section 1231 Assets

- Section 1231 property refers to Personal or Real Property held for Business use with a holding period of more than 12 months.

- Section 1231 Assets gets the best of both world treatment:
  - Gains are Treated as Capital Gains and are taxed at lower Capital Gain Rates.
  - Losses are Treated as Ordinary Losses and can be used to offset Ordinary Gains .
  - Gains of Section 1231 Assets are subject to Section 1245 Provisions (Personal Assets) & Section 1250 Provisions (Real Assets).

- Section 1245 Rules are the same for Individuals and Corporations whereas Section 1250 Rules are slightly different for Individuals and Corporations.

II. Section 1245 Assets: Personal Assets for Business Use (Same for Individuals and Corporations)

- Section 1245 Property is depreciable personal property used in business with a holding period of 12 months or more.

- Section 1231 allows gains to be treated as Capital Gains and taxed at lower Capital Gain Rates whereas losses are treated as Ordinary Losses and can be used to offset Ordinary Gains. Gains of Section 1231 Personal Assets are subject to Section 1245 Provisions.

- The purpose of Section 1245 is to recapture part or all of the gain on the sale of the property as ordinary income, to the extent of depreciation that has been claimed against the property. This is referred to as depreciation recapture. The idea is to prevent taxpayers from claiming ordinary deductions for depreciation and then realizing a capital gain on the sale of the property, which would be taxed at a lower rate.

    - If a Section 1245 asset is sold at a gain, the gain is treated as follows:
        - The amount of the gain up to Accumulated Depreciation is recaptured under Section 1245 and treated as Ordinary Income and taxed at Ordinary Income Tax Rates.
        - Any Excess gain is treated as Section 1231 Capital Gains.

    - Losses on the sale or exchange of Section 1245 property are treated as ordinary losses and can be used to offset ordinary income.

- Section 1245 Rules are the same for Individuals and Corporations.

Calculation

Proceeds	XXX	
Less: Adjusted Basis of the Property		
Cost		
(Accumulated Depreciation)		
Adjusted Basis of the Property	(XXX)	
Gain	**XXX**	
Gains up to Accumulated Depreciation	XXX	**Section 1245 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
Gains in Excess of Accumulated Depreciation	XXX	**Section 1231 Gain** Taxed at Capital Gain Tax Rates

Example

Ninja Inc. owns a piece of equipment used in your business that was originally purchased for $50,000, 6 years back. Over the years, Ninja Inc. has claimed a total of $30,000 in depreciation deductions for the equipment. In the current year, Ninja sells the equipment for $70,000. Calculate Section 1231 gain after applying the Section 1245 recapture.

Solution

Ninja Inc. sells a piece of equipment (depreciable personal property used in business) with a holding period of more 12 months. As such, this asset qualifies as a Section 1231 asset. The gain on sale of this property would be subject to Section 1231 provisions and Section 1245 recapture would apply. This will be calculated as follows:

Proceeds		$70,000	
Less: Adjusted Basis of the Property			
Cost	$50,000		
(Accumulated Depreciation)	($30,000)		
Adjusted Basis of the Property		($20,000)	
Gain		**$50,000**	
Gains up to Accumulated Depreciation		$30,000	**Section 1245 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
Gains in Excess of Accumulated Depreciation		$20,000	**Section 1231 Gain** Taxed at Capital Gain Tax Rates

III. Section 1250 Assets: Real Assets for Business Use (Individuals)

- Section 1250 Property is the depreciable real property used in business with a holding period of 12 months or more.

- Section 1231 allows gains to be treated as Capital Gains and taxed at lower Capital Gain Rates whereas losses are treated as Ordinary Losses and can be used to offset Ordinary Gains. Gains of Section 1231 Real Assets are subject to Section 1250 Provisions for Individuals.

- The purpose of Section 1250 is to recapture part or all of the gain on the sale of the property as ordinary income, to the extent of depreciation that has been claimed against the property. This is referred to as depreciation recapture. The idea is to prevent taxpayers from claiming ordinary deductions for depreciation and then realizing a capital gain on the sale of the property, which would be taxed at a lower rate.

    - If a Section 1250 asset is sold at a gain, the gain is treated as follows:
        - Gain up to Straight-Line Depreciation is treated as Unrecaptured Section 1250 Gain and taxed at a maximum rate of 25%
        - Amount of the gain up to Accumulated Depreciation in excess of Straight-Line Depreciation is Section 1250 Recapture and treated as Ordinary Income and taxed at Ordinary Income Tax Rates.
        - Gain in excess of Accumulated Depreciation is treated as Section 1231 Capital Gains.

    - Losses on the sale or exchange of Section 1250 property are treated as ordinary losses and can be used to offset ordinary income.

Calculation

Proceeds	XXX	
Less: Adjusted Basis of the Property		
Cost		
(Accumulated Depreciation)		
Adjusted Basis of the Property	(XXX)	
Gain	**XXX**	
Gains up to Straight-Line Depreciation	XXX	**Unrecaptured Section 1250 Gain:** Taxed at Maximum Rate of 25%
Gains up to Accumulated Depreciation – SLM Depreciation	XXX	**Section 1250 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
Gains in Excess of Accumulated Depreciation	XXX	**Section 1231 Gain** Taxed at Capital Gain Tax Rates

Example

Mike owns a warehouse used in your business that was originally purchased for $500,000, 15 years back. Over the years, Mike has claimed a total of $150,000 in depreciation deductions for the equipment. Straight-line Depreciation on this warehouse would have totaled $100,000. In the current year, Mike sells the warehouse for $700,000. Calculate Section 1231 gain after applying the Section 1250 recapture.

Solution

Mike sells a warehouse (depreciable real property used in business) with a holding period of more 12 months. Therefore, this asset qualifies as a Section 1231 asset. The gain on sale of this property would be subject to Section 1231 provisions and Section 1250 recapture would apply. This will be calculated as follows:

Proceeds		$700,000	
Less: Adjusted Basis of the Property			
Cost	$500,000		
(Accumulated Depreciation)	($150,000)		
Adjusted Basis of the Property		($350,000)	
Gain		**$350,000**	
Gains up to Straight-Line Depreciation		$100,000	**Unrecaptured Section 1250 Gain:** Taxed at Maximum Rate of 25%
Gains up to Accumulated Depreciation – SLM Depreciation ($150,000 - $100,000)		$50,000	**Section 1250 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
Gains in Excess of Accumulated Depreciation		$200,000	**Section 1231 Gain** Taxed at Capital Gain Tax Rates

IV. Section 1250 Assets: Real Assets for Business Use (Corporations)

- Section 1250 Property is primarily depreciable real property used in business with a holding period of 12 months or more.

- Section 1231 allows gains to be treated as Capital Gains and taxed at lower Capital Gain Rates whereas losses are treated as Ordinary Losses and can be used to offset Ordinary Gains. Gains of Section 1231 Real Assets are subject to Section 1250 and Section 291 Provisions for Corporations.

- The purpose of Section 1250 is to recapture part or all of the gain on the sale of the property as ordinary income, to the extent of depreciation that has been claimed against the property. This is referred to as depreciation recapture. The idea is to prevent taxpayers from claiming ordinary deductions for depreciation and then realizing a capital gain on the sale of the property, which would be taxed at a lower rate.

    - If a Section 1250 asset is sold at a gain, the gain is treated as follows:
        - Amount of the gain up to Accumulated Depreciation in excess of Straight-Line Depreciation is recaptured under Section 1250 and treated as Ordinary Income and taxed at Ordinary Income Tax Rates.
        - 20% of (Ordinary Income if the property were considered Section 1245 property – Ordinary Income under Section 1250) is Section 291 recapture and treated as Ordinary Income and taxed at Ordinary Income Tax Rates
        - Any Excess gain is treated as Section 1231 Capital Gains.

    - Losses on the sale or exchange of Section 1250 property are treated as ordinary losses and can be used to offset ordinary income.

Calculation

Proceeds	XXX	
Less: Adjusted Basis of the Property		
Cost		
(Accumulated Depreciation)		
Adjusted Basis of the Property	(XXX)	
Gain	**XXX**	
Gains up to Accumulated Depreciation – SLM Depreciation	XXX	**Section 1250 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
(1245 Ordinary Income - 1250 Ordinary Income) x 20%	XXX	**Section 291 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
Excess Gain	XXX	**Section 1231 Gain** Taxed at Capital Gain Tax Rates

Example

ABC Corp, a corporate entity, sells a commercial building that it used in its business for a number of years. The original purchase price (cost basis) of the building was $1,000,000. Over the years, ABC Corp took $600,000 of depreciation on the building, which was $200,000 more than what would have been allowed under the straight-line depreciation method. ABC Corp sells the building for $1,200,000. Calculate Section 1231 gain after applying the Section 1250 recapture.

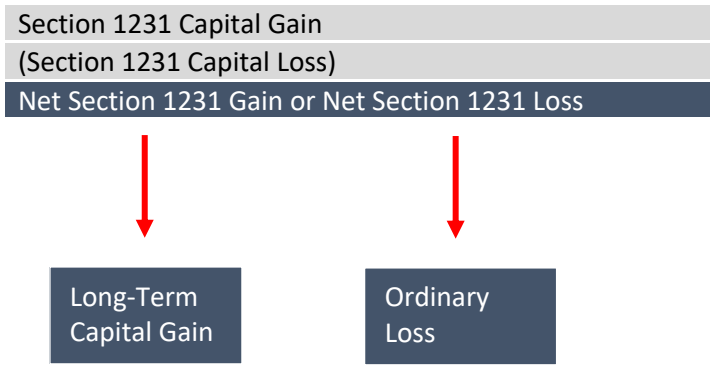
Solution

ABC Corp sells a commercial building (depreciable real property used in business) with a holding period of more than 12 months. As such, this asset qualifies as a Section 1231 asset. The gain on sale of this property would be subject to Section 1231 provisions and Section 1250 recapture and Section 291 recapture would apply. This will be calculated as follows:

Proceeds		$1,200,000	
Less: Adjusted Basis of the Property			
Cost	$1,000,000		
(Accumulated Depreciation)	($600,000)		
Adjusted Basis of the Property		($400,000)	
Gain		**$800,0000**	
Gains up to Accumulated Depreciation – SLM Depreciation		$200,000	**Section 1250 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
(1245 Ordinary Income - 1250 Ordinary Income) x 20% ⇒ [Accumulated Depreciation – (Accumulated Depreciation - SLM Depreciation)] x 20% ⇒ [$600,000 – ($600,000 - $400,000)] x 20% ⇒ [$600,000 – $200,000] x 20% ⇒ $400,000 x 20% = $20,000		$20,000	**Section 291 Recapture:** Taxed as Ordinary Gains at Ordinary Income Tax Rates
Excess Gain		$580,000	**Section 1231 Gain** Taxed at Capital Gain Tax Rates

V. Section 1231 Netting Process

Section 1231 gains and Section 1231 losses are netted against each other. The resultant Net Section 1231 gain would be treated as Capital Gain whereas Net Section 1231 Loss would be treated as Ordinary Loss.



VI. Summary

Here's a summary for the tax treatment of Gain or Loss on the Sale of a Business Property:

	Individuals	Corporations
1245 (Depreciable Personal Property)	**Gains** • **Gains up to Accumulated Depreciation:** Ordinary Income (Section 1245 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)	**Gains** • **Gains up to Accumulated Depreciation:** Ordinary Income (Section 1245 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)
1250 (Depreciable Real Property)	**Gains** • **Gains up to Straight-Line Depreciation:** Taxed at 25% (Unrecaptured Section 1250) • **Gains up to Accumulated Depreciation in excess of SLM Depreciation:** Ordinary Income (Section 1250 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)	**Gains** • **Gains up to Accumulated Depreciation in excess of SLM Depreciation:** Ordinary Income (Section 1250 Recapture) • **20% of (1245 Ordinary Income - 1250 Ordinary Income):** Ordinary Income (Section 290 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)

NINJA NOTES

Tax Compliance & Planning
2024

Property Taxation

(July 1, 2024 – June 30, 2025 Exams)

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Property Taxation

Basis of Assets

- Basis & Holding Period of Assets Purchased

	Basis	Holding Period
Asset Purchased	The Basis of the Asset Purchased is calculated as follows: Cost of Purchase: XXX Add: Debt Assumed: XXX Add: Other Expense: XXX Add: Capital Improvement: XXX **Basis of Asset Purchased: XXX**	Date of Acquisition until the Date of Sale

- Basis & Holding Period of Assets Received as Inheritance

	Basis	Holding Period
Asset Received as Inheritance	FMV of the asset on the date of the original owner's death or FMV on an Alternate Valuation Date (if elected). Alternate Valuation Date is the earlier of: • Six months after the date of death or • The date of distribution or sale of the asset	Always Long-Term

- Basis & Holding Period of Assets Received as Gift

		Basis	Holding Period
On Date of Gift: Basis < FMV (Built-in Gains)		Donor's Carryover Basis	Donor's Carryover Holding Period (Donor's Holding Period + Donee's Holding Period)
	Case 1: Sales Price > Donor's Basis > FMV at Date of Gift	Donor's Carryover Basis Therefore, Gain would be recognized as follows: Sales Price	Donor's Carryover Holding Period (Donor's Holding Period + Donee's Holding Period)

On Date of Gift: Basis < FMV (Built-in Gains)		(Donor's Basis) Capital Gain	
	Case 2: Donor's Basis > Sales Price > FMV at Date of Gift	Sales Price Therefore, No Gain or Loss would be recognized.	Donor's Carryover Holding Period (Donor's Holding Period + Donee's Holding Period)
	Case 3: Donor's Basis > FMV at Date of Gift > Sales Price	FMV at Date of Gift Therefore, Loss would be recognized as follows: Sales Price (FMV at Date of Gift) **Capital Loss**	Donee's Holding Period

- Basis & Holding Period of Assets Converted from Personal-Use to Business-Use

	Basis	Holding Period
Asset Converted from Personal Use to Business Use	Lower of: • Adjusted Basis of Asset • FMV of Asset on Date of Conversion	The Holding Period begins from the date the asset was acquired for personal use.

Capital Gains & Losses: Calculation and Treatment

- Calculation of Capital Gains and Losses: Individuals and Corporations

Proceeds →	Cash received Property received (FMV) Services received (FMV) Cancellation of Debt Selling Expenses
<Adjusted Basis of Assets Sold>	
Capital Gain or Loss Realized →	Holding Period > 1 Year (Long-Term Capital Gain or Loss) Holding Period < 1 Year (Short-Term Capital Gain or Loss)

- Netting Process for Capital Gains and Losses: Individuals and Corporations
  - Step 1: Net Short-Term Gains and Losses together, and Long-Term Gains and Losses together

Short-Term Capital Gain
(Short-Term Capital Loss)
Net Short-Term Capital Gain / (Net Short-Term Capital Loss)

Long-Term Capital Gain
(Long-Term Capital Loss)
Net Long-Term Capital Gain / (Net Long-Term Capital Loss)

  - Step 2: Net Short-Term Gains and Losses with Long-Term Gains and Losses if opposite signs or else no netting.
    - If one is a net gain and the other is a net loss, net them together. This will result in either a single net Short-Term Capital Gain/Loss or a Single Net Long-Term Capital Gain/Loss.

Net Short-Term Capital Gain
(Net Long-Term Capital Loss)
Net Short-Term Capital Gain

(Net Short-Term Capital Loss)
Net Long-Term Capital Gain
Net Short-Term Capital Loss

Net Long-Term Capital Gain
(Net Short-Term Capital Loss)
Net Long-Term Capital Gain

(Net Long-Term Capital Loss)
Net Short-Term Capital Gain
Net Long-Term Capital Loss

    - If both are gains or both are losses, do not net them together. In this case, you will have either:
      - Net Short-Term Capital Gain and Net Long-Term Capital Gain.
      - Net Short-Term Capital Loss and Net Long-Term Capital Loss.
- Tax Treatment of Capital Gains and Losses
  - Tax Treatment of Capital Gains and Losses: Individuals

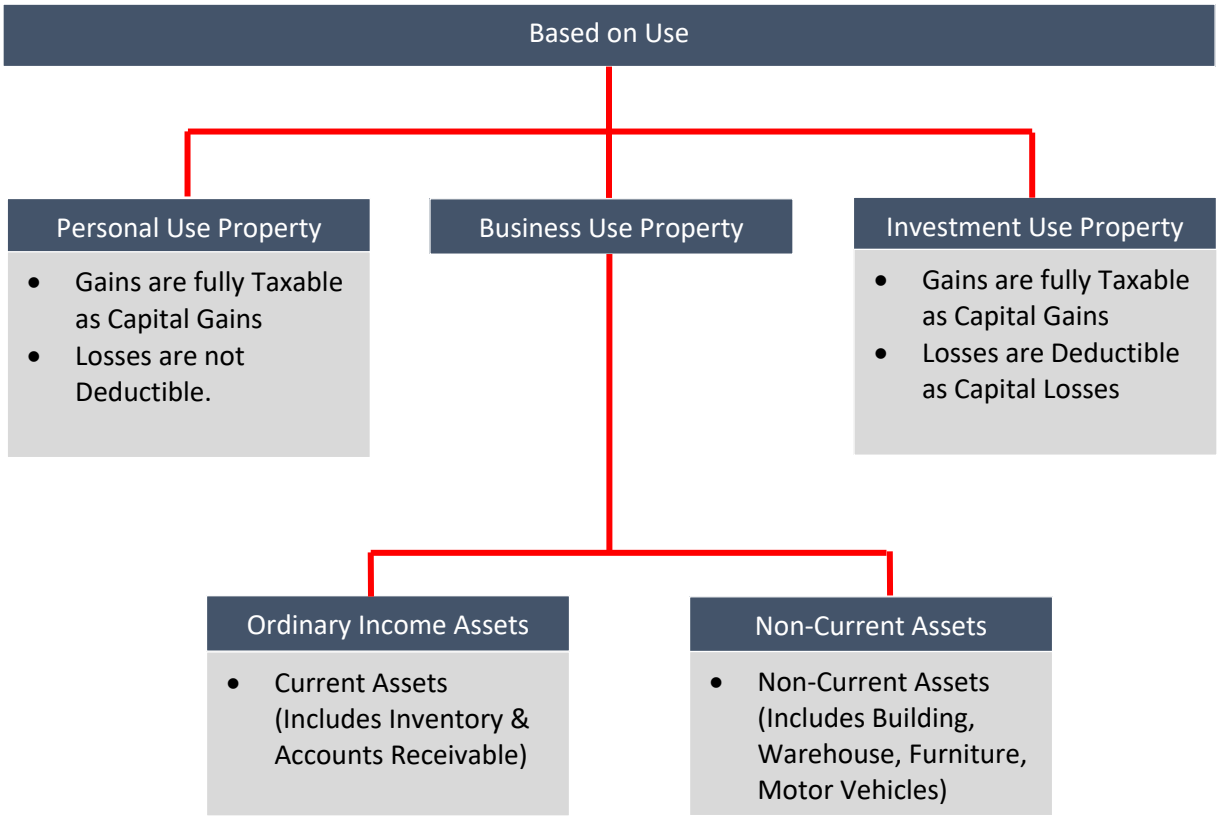
Type	Tax Treatment
Net Short-Term Capital Gain	• Short-Term Capital Gains are taxed at ordinary income tax rates
Net Short-Term Capital Loss	• Set off Net Short-Term Capital Loss from other sources of income up to $3,000 (MFJ & Single) and $1,500 (MFS) every year. • Excess carried forward indefinitely
Net Long-Term Capital Gain	• Long-Term Capital Gains are taxed at capital gain tax rates (0%, 15%, 20%)

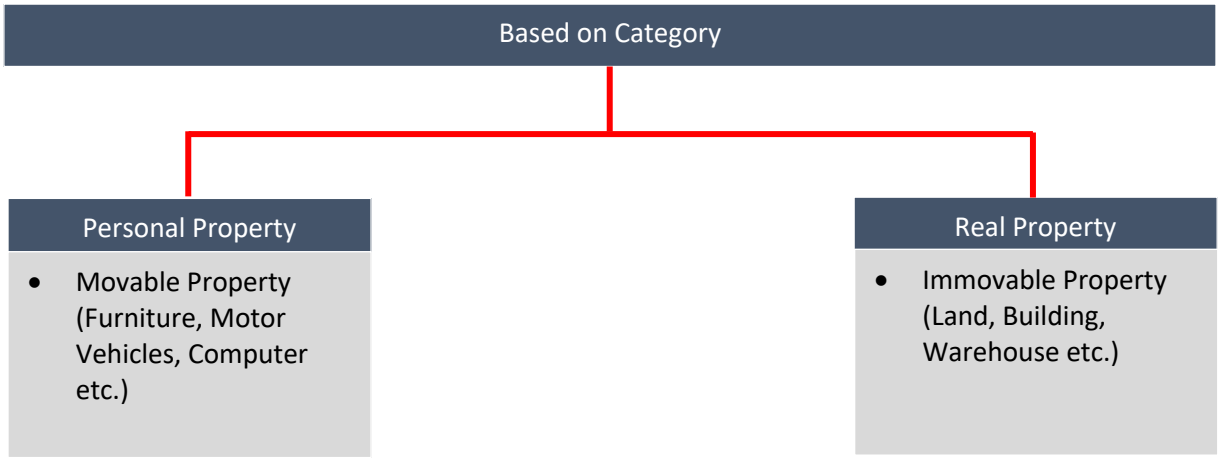
Net Long-Term Capital Loss	• Set off Net Long-Term Capital Loss from other sources of income up to $3,000 (MFJ & Single) and $1,500 (MFS) every year. • Excess carried forward indefinitely

- Tax Treatment of Capital Gains and Losses: Corporations

Type	Tax Treatment
Net Short-Term Capital Gain	• Short-Term Capital Gains are taxed at Ordinary Corporate Income Tax Rates
Net Short-Term Capital Loss	• Short-Term Capital Loss may be deducted only to the extent of the Capital Gain during the year. • Net Short-Term Capital Losses not allowed as a deduction can be carried back 3 years and carried forward 5-years.
Net Long-Term Capital Gain	• Long-Term Capital Gains are taxed at Ordinary Corporate Income Tax Rates
Net Long-Term Capital Loss	• Long-Term Capital Loss may be deducted only to the extent of the Capital Gain during the year. • Net Long-Term Capital Losses not allowed as a deduction can be carried back 3 years and carried forward 5 years.

Types of Property





Capital Gain Realized but Not Recognized

Situation	Summary
Homeowners Exclusion	• Gain on the sale of a personal residence can be excluded: $250,000 (Single) or $500,000 (MFJ). • Losses on the sale of personal residences are not deductible.
Involuntary Conversion	• Gain from an involuntary conversion can be deferred if the property is replaced within specific time limits. • Losses on destruction of personal property are generally not deductible.
Divorce Property Settlements	• Property settlements in divorce are not taxable events.
Exchange of Like-Kind Assets	• Gain or loss on the exchange of Like-Kind Real Assets held for Business use or Investment Use is not recognized. (Exception when Boot is Received). • Does not apply to Personal property held for Business use or Investment Use and Personal Use Assets.
Installment Sale	• Gain on an installment sale is reported over the period in which cash payments are received.
Stock Transactions	• Gain or loss on certain stock transactions, such as stock issuances, repurchases, reissues, stock splits, and stock dividends is not recognized for tax purposes.
Investment in Qualified Opportunity Funds	• Capital gains can be deferred by investing in Qualified Opportunity Funds within specific time limits. The basis in the fund is reduced by the deferred gain.

Capital Loss Realized but Not Deductible

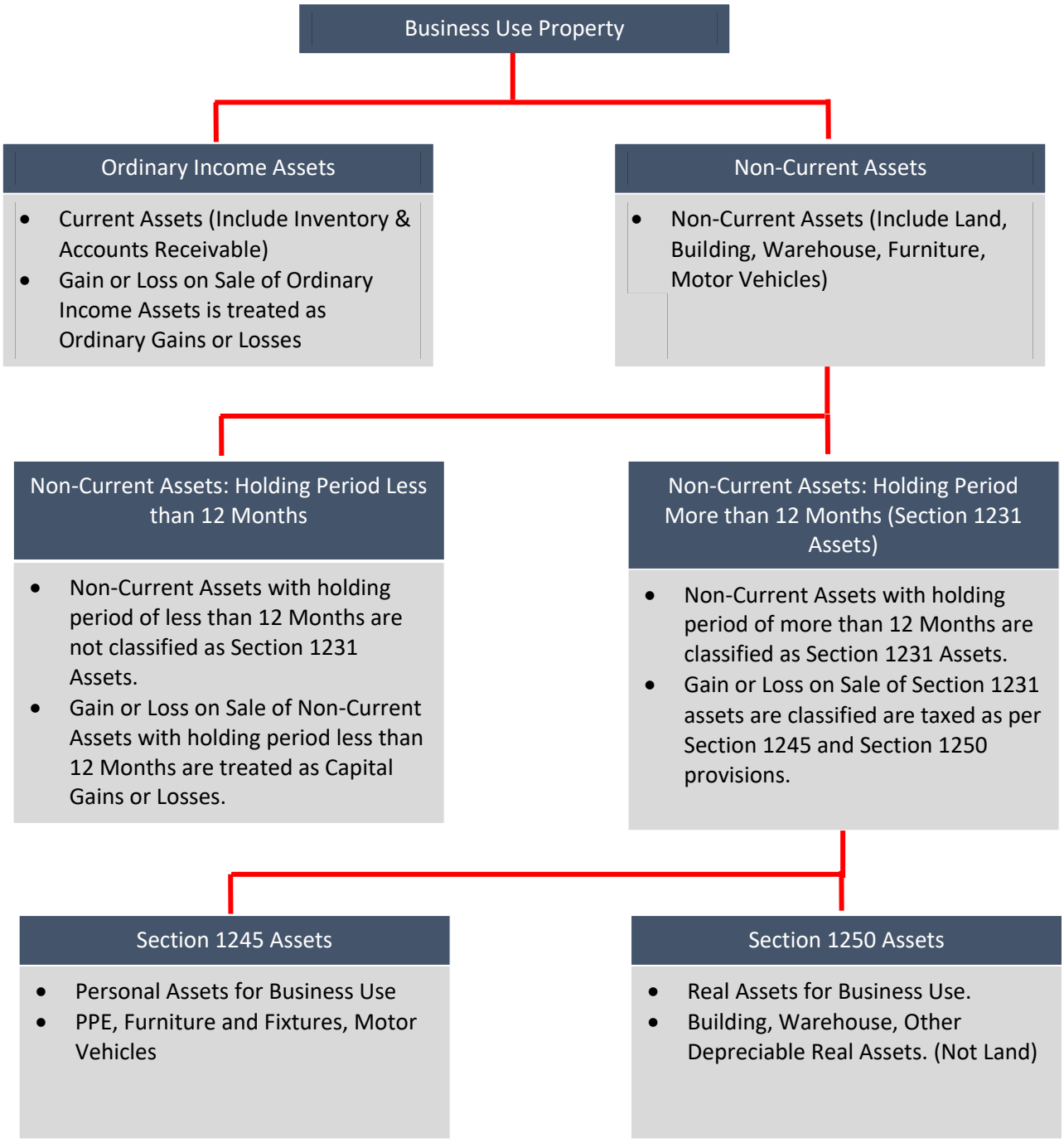
Situation	Summary
Wash Sale Losses	• Losses are disallowed and added to the basis. • Gains are fully taxable.
Loss on Sale of Personal Use Assets	• Losses are not deductible. • Gains are fully taxable.
Related Party Transactions	• Losses are not deductible but future gains are not taxable to the extent of previously unrecognized losses. • Gains are fully taxable.

Gain or Loss on Sale of Section 1244 and Section 1202 Stocks

Situation	Summary
Section 1244 Stocks	• Gains are taxed as Capital Gain and subject to lower income tax rates. • Loss up to $50,000 (Single) & $100,000 (MFJ) will be treated as Ordinary Loss and the balance would be treated as Capital Losses.
Section 1202 Stocks	• Losses are treated as Capital Losses. • Gains on Sale of Section 1202 stock would be excluded up to 100%

Gain or Loss on Sale of Business Property

- Classification



- Calculation

	Individuals	Corporations
1245 (Depreciable Personal Property)	**Gains** • **Gains up to Accumulated Depreciation:** Ordinary Income (Section 1245 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)	**Gains** • **Gains up to Accumulated Depreciation:** Ordinary Income (Section 1245 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)
1250 (Depreciable Real Property)	**Gains** • **Gains up to Straight-Line Depreciation:** Taxed at 25% (Unrecaptured Section 1250) • **Gains up to Accumulated Depreciation in excess of SLM Depreciation:** Ordinary Income (Section 1250 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)	**Gains** • **Gains up to Accumulated Depreciation in excess of SLM Depreciation:** Ordinary Income (Section 1250 Recapture) • **20% of (1245 Ordinary Income - 1250 Ordinary Income):** Ordinary Income (Section 290 Recapture) • **Excess Gain:** Capital Gain (Section 1231 Gain) **Losses** • **Loss:** Ordinary Loss (Section 1231 Loss)

NINJA BOOK

Information Systems & Control
2024

Emerging Technologies

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Emerging Technologies

Emerging Technologies

I. Artificial Intelligence
II. Machine Learning
III. Robotic Process Automation
IV. Blockchain
V. Cryptocurrency

Emerging Technologies

Emerging Technologies

I. Artificial Intelligence

Artificial Intelligence (AI) is a field of computer science that focuses on the creation of intelligent machines that can mimic human perception, cognitive functions, and display a consciousness-like human mind. AI has been successful in many areas such as understanding speech, creating real-life simulations for training, self-driving cars, image recognition, interpreting complex data, and even learning and playing chess based on the opponent's moves.

Types of Artificial Intelligence (AI)

- **Weak AI:** Weak AI, also known as Narrow AI, is designed to perform specific tasks and excel at them, such as Apple's Siri which is a virtual assistant that can understand and respond to voice commands.

- **Strong AI:** Strong AI, also known as Broad AI, is designed to possess cognitive abilities that are similar to that of a human, such as understanding natural language, recognizing faces, and making decisions. An example of this is Sophia, a robot that has been designed to resemble a human and has been granted citizenship in Saudi Arabia. Strong AI is still a topic of research and is not yet fully developed.

Applications of Artificial Intelligence (AI)

- **Self-Driving Cars:** AI algorithms are used to process sensor data and make decisions to safely navigate roads
- **Image Recognition:** AI is used to analyze and identify objects, people, and scenes in images and videos
- **Speech Recognition:** AI is used to transcribe and translate speech in real-time, powering virtual assistants and voice-controlled devices
- **Natural Language Processing:** AI is used to understand and respond to human language, powering chatbots and language translation software
- **Robotics:** AI is used to control and coordinate the actions of robots, allowing them to perform tasks autonomously
- **Healthcare:** AI is used to analyze medical images, assist in diagnosis and treatment planning, and predict patient outcomes
- **Finance:** AI is used to detect fraud, predict stock prices, and make trading decisions
- **Gaming:** AI is used to create intelligent opponents and non-player characters in video games
- **Marketing:** AI is used to analyze customer data and personalize advertising and recommendations
- **Climate Change:** AI is used to analyze and predict weather patterns, detect and predict natural disasters, and improve renewable energy systems

Benefits of Implementing AI in Accounting Information Systems

Implementing Artificial Intelligence (AI) in an Accounting Information System (AIS) can provide numerous benefits, transforming the way organizations manage their financial processes. Some of the key benefits include:

- **Enhanced automation:** AI can automate complex tasks beyond what Robotic Process Automation (RPA) can handle, such as natural language processing, image recognition, and advanced pattern recognition. This leads to even greater efficiency and cost savings.

- **Improved accuracy and reduced errors:** AI algorithms can analyze large volumes of data with high precision, minimizing the risk of errors that may arise from manual data entry or processing. This ensures the reliability and integrity of financial information.

- **Advanced data analytics and insights:** AI-powered tools can process and analyze vast amounts of financial data to identify trends, anomalies, and patterns that may not be easily discernible to humans. This enables better financial forecasting, risk management, and decision-making.

- **Fraud detection and prevention:** AI algorithms can be trained to detect unusual transactions or patterns that may indicate fraudulent activity. By identifying potential fraud early, organizations can take preventive measures to protect their financial assets and reputation.

- **Enhanced decision-making:** AI can support decision-making processes by providing real-time data, predictive analytics, and insights based on historical trends and patterns. This helps organizations make more informed, data-driven decisions, leading to better financial planning and performance.

- **Personalized customer experiences:** AI can help organizations better understand their customers by analyzing financial data and customer interactions. This can enable organizations to offer personalized financial products and services, leading to improved customer satisfaction and loyalty.

- **Streamlined regulatory compliance:** AI tools can help organizations stay compliant with changing regulations by automating the monitoring and reporting of financial information, as well as identifying potential compliance issues early on.

- **Increased productivity:** AI can help accounting professionals focus on high-value tasks by automating routine, time-consuming tasks. This leads to increased productivity, as professionals can dedicate more time to strategic planning, analysis, and decision-making.

- **Scalability:** AI-powered AIS can easily scale to accommodate changes in business size, complexity, or regulatory requirements. This enables organizations to adapt more quickly to changing business environments and maintain efficient financial processes.

- **Continuous learning and improvement:** AI systems can learn from the data they process, adapting and improving over time. This continuous learning capability enables organizations to stay ahead of industry trends, respond to changing market conditions, and continuously improve their financial processes.

II. Machine Learning

Machine Learning (ML) is a subfield of Artificial Intelligence (AI) where computers or machines have the ability to learn from data and improve their performance on a specific task without being explicitly programmed. It allows computers to automatically improve their performance based on experience.

Machine Learning is widely used in areas such as data analytics, computer vision, natural language processing, and robotics. In data analytics, machine learning is used to develop complex models and algorithms for predictive analytics. Machine learning algorithms follow a process of inferring or predicting outcomes based on a given data set, identifying any errors, and then using that information to train and improve the algorithm. This process allows the machine to continuously learn and improve its performance.

Machine Learning algorithms can be divided into three main steps:

- **Infer/Predict:** In the infer/predict step, the algorithm works on a given data set to draw an inference or make a prediction
- **Error:** In the error step, the inference or prediction is compared to the desired outcome, and any errors are identified
- **Train/Learn:** In the train/learn step, the algorithm learns from these errors and improves its performance over time

Benefits of Implementing Machine Learning in Accounting Information Systems

Here are some key benefits of implementing Machine Learning in AIS:

- **Enhanced automation:** ML algorithms can automate complex accounting tasks that require pattern recognition and decision-making, leading to increased efficiency and cost savings. These tasks may include categorizing transactions, detecting anomalies, and reconciling accounts.
- **Improved accuracy and reduced errors:** ML models can analyze large volumes of data with high precision, minimizing the risk of errors arising from manual data entry or processing. This ensures the reliability and integrity of financial information.
- **Advanced data analytics and insights:** ML can process and analyze vast amounts of financial data to identify trends, anomalies, and patterns that may not be easily discernible by humans. This enables better financial forecasting, risk management, and decision-making.
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III. Robotic Process Automation

Robotic Process Automation (RPA) is a technology that allows businesses to automate repetitive, routine tasks by mimicking the actions of a human user interacting with digital systems. This can include tasks such as data entry, form filling, and even complex workflows.

RPA bots are typically integrated with other software systems, such as enterprise resource planning (ERP) or customer relationship management (CRM) systems, to automate tasks and workflows across multiple systems. The goal of RPA is to increase efficiency, reduce costs, and improve accuracy by automating repetitive, manual tasks.

An example of RPA in accounting would be using a bot to automatically input data from invoices into the accounting system. The bot can be programmed to read the invoice, extract the relevant information, and then input that information into the accounting system. This can save a significant amount of time for accounting staff and help reduce errors.

Benefits of Implementing RPA in Accounting Information Systems

Robotic Process Automation (RPA) can significantly improve the performance of an Accounting Information System (AIS) by automating repetitive tasks, reducing human error, and enhancing efficiency. Here are some ways RPA can improve AIS:

- **Speed and accuracy:** RPA bots can process data and perform tasks much faster than humans while maintaining a high level of accuracy. This increased speed and accuracy can lead to more efficient accounting processes and a reduced likelihood of errors.

- **Reduced manual effort:** By automating repetitive tasks, RPA frees up time for accounting staff to focus on more complex, value-added tasks, such as financial analysis, planning, and decision-making. This can lead to better resource utilization and increased job satisfaction for employees.

- **Cost savings:** RPA implementation can result in cost savings due to reduced labor costs, minimized errors, and increased efficiency. These savings can be reinvested into the business to drive further growth and development.

- **Enhanced compliance:** RPA bots can be programmed to follow specific rules and regulations, ensuring that accounting processes are consistently compliant with relevant standards and guidelines. This can help reduce the risk of non-compliance and associated penalties.

- **Improved auditability and transparency:** RPA can provide a detailed audit trail, as bots log their activities during the execution of tasks. This increased transparency can help auditors trace transactions and processes more easily, leading to more efficient audits and better internal control.

- **Scalability:** RPA solutions can be easily scaled to accommodate increased workloads or changes in business processes. This flexibility enables organizations to quickly adapt to evolving business needs and maintain efficient AIS processes.

- **Real-time processing** and reporting: RPA bots can process data and generate reports in real time, providing up-to-date financial information for decision-makers. This can lead to more informed, data-driven decisions and improved financial planning.

- **Integration with other systems:** RPA can be integrated with other business systems, such as Enterprise Resource Planning (ERP) or Customer Relationship Management (CRM) systems. This integration can help streamline data flow between systems, minimize manual data entry, and improve overall efficiency.

IV. Blockchain

Blockchain is a decentralized, digital ledger of transactions that is used to record and track transactions across a network of computers.

One of the key features of blockchain technology is its ability to create trust between parties that don't know or trust each other. This is achieved through the use of cryptography, which ensures that once a block is added to the chain, it cannot be altered. This creates a tamper-proof record of all transactions, making it ideal for use in financial systems, supply chain management, and other industries where transparency and security are important.

Blockchain Characteristics

- Blockchain is a distributed ledger technology, meaning that it is spread across a network of computers, rather than being stored in a central location
- Blockchain is highly secure and resistant to tampering, as each block in the chain is connected to the previous block through cryptographic links called "hashes"
- Transactions on a blockchain are usually validated by a consensus mechanism, such as proof-of-work or proof-of-stake, where multiple users on the network validate the transaction
- Blockchain technology is often used for digital currencies, such as Bitcoin, but it can be applied to other areas such as supply chain management, voting systems, and many other industries
- The transparency and immutability of blockchain technology allow for increased trust and accountability in transactions

Blockchain Working

The blockchain process typically involves several steps:

- Transactions are initiated by users, who send digital assets (such as cryptocurrencies) to specific addresses on the blockchain
- These transactions are grouped together into blocks, which are then broadcast to the network for validation
- Validating nodes, also known as "miners," use complex algorithms to verify the transactions and add the block to the blockchain
- Once added, the block cannot be altered or deleted, creating a permanent and tamper-proof record of the transaction
- The blockchain is maintained by a decentralized network of nodes, rather than a central authority, so there is no single point of failure

Advantages of Blockchain

- Increased security and immutability of records due to the decentralized and cryptographic nature of the technology
- Reduced risk of fraud and corruption as transactions are transparent and tamper-proof
- Improved efficiency and reduced intermediaries in various industries such as finance, supply chain management, and real estate
- Enhanced privacy and protection of sensitive information as personal identification is often encrypted and not shared on the public ledger
- Potential for smart contracts and decentralized applications that can automate processes and increase automation

Disadvantages of Blockchain

- Scalability issues as the number of users and transactions increases
- Limited privacy and security concerns as information is publicly accessible
- Limited interoperability between different blockchain systems
- Energy consumption for maintaining and verifying the network can be high
- Potential for illegal activities such as money laundering and fraud due to the anonymity of transactions
- Limited adoption and understanding of the technology among individuals and businesses

Smart Contracts

Blockchain technology also enables the creation of smart contracts, which are self-executing contracts with the terms of the agreement directly written into lines of code. This eliminates the need for intermediaries in many transactions and enables more efficient and secure exchanges of assets, goods and services.

Blockchain and Financial Reporting

Blockchain technology has the potential to transform financial reporting by providing a secure, transparent, and efficient platform for recording and sharing financial information. Here are some ways blockchain can be used in financial reporting:

- **Enhanced data accuracy and integrity:** Blockchain uses cryptographic techniques and consensus mechanisms to ensure that once data is added to the chain, it cannot be altered or tampered with. This ensures the accuracy and integrity of financial data, reducing the risk of errors or fraud.

- **Real-time reporting:** Blockchain allows for real-time recording and sharing of financial data, which can facilitate faster and more up-to-date financial reporting. This can help organizations make more informed, data-driven decisions and improve their financial planning.

- **Increased transparency and traceability:** Blockchain provides a transparent, tamper-proof ledger that can be accessed by all relevant parties. This enhances the traceability of financial transactions and provides a clear audit trail, making it easier for auditors and regulators to verify the accuracy of financial reports.

- **Automation with smart contracts:** Smart contracts are self-executing contracts with the terms of the agreement directly written into code. They can be used to automate various financial reporting processes, such as revenue recognition or expense allocation, reducing manual effort and the potential for errors.

- **Intercompany transactions:** Blockchain can help streamline intercompany transactions by providing a shared, real-time ledger that can be accessed by all involved parties. This can simplify the reconciliation process and improve the accuracy of financial reports.

- **Secure data sharing:** Blockchain allows for secure sharing of financial data between organizations and their stakeholders, such as investors, regulators, and auditors. This can help reduce the risk of data breaches and ensure that sensitive financial information is protected.

- **Simplified consolidation:** Blockchain can simplify the consolidation process for organizations with multiple subsidiaries or entities by providing a single source of truth for financial data. This can reduce the time and effort required to consolidate financial reports and ensure greater consistency across entities.

- **Reduced audit complexity:** The transparency and traceability provided by blockchain can help reduce the complexity of financial audits. Auditors can more easily verify the accuracy of financial data, potentially leading to more efficient audits and reduced audit costs.

- **Regulatory compliance:** Blockchain can facilitate compliance with financial reporting regulations by providing a transparent, secure, and tamper-proof record of financial transactions. This can help organizations demonstrate their compliance with regulatory requirements and reduce the risk of penalties or sanctions.

Controls on Blockchain Technology in Financial Reporting

The COSO Internal Control Framework is a widely recognized framework for designing, implementing, and evaluating the effectiveness of internal control systems. In the context of blockchain technology for financial reporting, the COSO framework can be applied to evaluate risks and design controls to address them.

By applying the COSO framework to blockchain technology in financial reporting, organizations can systematically identify, evaluate, and manage risks while designing and implementing effective controls to address those risks. This helps ensure the integrity, reliability, and security of financial reporting processes that leverage blockchain technology.

The framework consists of five components and seventeen principles that can be adapted to assess blockchain-related risks.

COSO Component	COSO Principle	Blockchain Application
Control Environment	1. Demonstrate commitment to integrity and ethical values	Establish clear policies and guidelines on the ethical use of blockchain technology in financial reporting
	2. Exercise oversight responsibility	Board and management oversight to ensure blockchain implementation aligns with organizational objectives and complies with relevant regulations
	3. Establish structure, authority, and responsibility	Define clear roles and responsibilities for blockchain implementation, operation, and maintenance
	4. Demonstrate commitment to competence	Provide training and resources to ensure employees have the necessary skills and knowledge to effectively use blockchain technology
	5. Enforce accountability	Establish performance metrics and monitoring to ensure employees are held accountable for adherence to blockchain-related policies and controls
Risk Assessment	6. Specify relevant objectives	Identify objectives related to the use of blockchain in financial reporting, such as data accuracy, transparency, and security
	7. Identify and analyze risks	Assess potential risks associated with using blockchain technology, such as security vulnerabilities, data integrity concerns, and regulatory compliance
	8. Consider the potential for fraud	Evaluate the possibility of fraud and misconduct within the blockchain system, such as manipulation of data or unauthorized access
	9. Identify and assess changes	Continuously monitor the evolving blockchain landscape and assess the impact of changes on the organization's risk profile
Control Activities	10. Select and develop control activities	Design and implement controls to address blockchain-related risks, such as access controls, data encryption, and smart contract validation

	11. Select and develop general controls over technology	Implement general IT controls, such as system development, change management, and security management, to support blockchain technology
	12. Deploy through policies and procedures	Develop and communicate policies and procedures that outline the proper use of blockchain technology in financial reporting
Information and Communication	13. Use relevant information	Gather and analyze relevant information from the blockchain to support decision-making and risk management
	14. Communicate internally	Establish communication channels to keep employees informed about blockchain-related developments, policies, and procedures
	15. Communicate externally	Communicate with external stakeholders, such as regulators, auditors, and customers, about the organization's use of blockchain technology in financial reporting
Monitoring Activities	16. Perform ongoing and/or separate evaluations	Regularly evaluate the effectiveness of blockchain-related controls and identify areas for improvement
	17. Communicate deficiencies	Report identified control deficiencies to the appropriate personnel and take corrective actions to address them

V. Cryptocurrency

Cryptocurrency is a digital or virtual currency that uses cryptography for security. It operates independently of a central bank and is decentralized, meaning it is not controlled by any government or institution. Bitcoin, the first and most well-known cryptocurrency, was created in 2009. Other examples of cryptocurrency include Ethereum, Litecoin, and Ripple.

Cryptocurrency transactions are recorded on a public digital ledger called a blockchain. The use of cryptocurrency is still a relatively new and rapidly evolving field, and there is ongoing debate about its potential uses and risks.

Bitcoin

Bitcoin is a decentralized digital currency, without a central bank or single administrator, that can be sent from user to user on the peer-to-peer Bitcoin network without the need for intermediaries. Transactions are verified by network nodes through cryptography and recorded in a publicly distributed ledger called a blockchain. Bitcoin is the first and most widely used cryptocurrency.

It was created in 2009 by an unknown person or group of people using the pseudonym Satoshi Nakamoto. It is decentralized, meaning it is not controlled by any government or institution, and it operates on a blockchain network. Transactions are recorded on a public ledger, and the system is designed to prevent double spending of the same bitcoin. The total supply of Bitcoin is limited to 21 million, and as of 2021, over 18 million have been mined.

NINJA NOTES

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Emerging Technologies

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    - Self-Driving Cars
    - Image Recognition
    - Speech Recognition
    - Natural Language Processing
    - Robotics
    - Healthcare
    - Finance
    - Marketing
    - Climate Change
- Benefits of Implementing AI in Accounting Information Systems
    - Enhanced Automation
    - Improved Accuracy and Reduced Errors.
    - Advanced Data Analytics and Insights.

        - Fraud Detection and Prevention
        - Enhanced Decision-Making
        - Personalized Customer Experiences
        - Streamlined Regulatory Compliance
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        - Scalability
        - Continuous Learning and Improvement

Machine Learning

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    - Fraud Detection and Prevention
    - Enhanced Decision-Making

- Personalized Customer Experiences
- Streamlined Regulatory Compliance
- Increased Productivity
- Scalability
- Continuous Learning and Improvement

Robotic Process Automation

- Robotic Process Automation (RPA) is a technology that allows businesses to automate repetitive, routine tasks by mimicking the actions of a human user interacting with digital systems.
- This can include tasks such as data entry, form filling, and even complex workflows.
- Benefits of Implementing RPA in Accounting Information Systems
  - Speed and Accuracy
  - Reduced Manual Effort
  - Cost Savings
  - Enhanced Compliance
  - Improved Auditability and Transparency
  - Scalability
  - Real-Time Processing and Reporting
  - Integration with Other Systems

Blockchain

- Blockchain is a decentralized, digital ledger of transactions that is used to record and track transactions across a network of computers.
- One of the key features of blockchain technology is its ability to create trust between parties that don't know or trust each other.
- Blockchain Characteristics
  - Blockchain is a distributed ledger technology, meaning that it is spread across a network of computers, rather than being stored in a central location

- Blockchain is highly secure and resistant to tampering, as each block in the chain is connected to the previous block through cryptographic links called "hashes"
- Transactions on a blockchain are usually validated by a consensus mechanism, such as proof-of-work or proof-of-stake, where multiple users on the network validate the transaction
- Blockchain technology is often used for digital currencies, such as Bitcoin, but it can be applied to other areas such as supply chain management, voting systems, and many other industries
- The transparency and immutability of blockchain technology allow for increased trust and accountability in transactions

- Blockchain Working
  - Transactions are initiated by users, who send digital assets (such as cryptocurrencies) to specific addresses on the blockchain
  - These transactions are grouped together into blocks, which are then broadcast to the network for validation
  - Validating nodes, also known as "miners," use complex algorithms to verify the transactions and add the block to the blockchain
  - Once added, the block cannot be altered or deleted, creating a permanent and tamper-proof record of the transaction
  - The blockchain is maintained by a decentralized network of nodes, rather than a central authority, so there is no single point of failure

- Advantages of Blockchain
  - Increased security and immutability of records due to the decentralized and cryptographic nature of the technology
  - Reduced risk of fraud and corruption as transactions are transparent and tamper-proof
  - Improved efficiency and reduced intermediaries in various industries such as finance, supply chain management, and real estate
  - Enhanced privacy and protection of sensitive information as personal identification is often encrypted and not shared on the public ledger
  - Potential for smart contracts and decentralized applications that can automate processes and increase automation

- Disadvantages of Blockchain
    - Scalability issues as the number of users and transactions increases
    - Limited privacy and security concerns as information is publicly accessible
    - Limited interoperability between different blockchain systems
    - Energy consumption for maintaining and verifying the network can be high
    - Potential for illegal activities such as money laundering and fraud due to the anonymity of transactions
    - Limited adoption and understanding of the technology among individuals and businesses.
- Smart Contracts
    - Blockchain technology also enables the creation of smart contracts, which are self-executing contracts with the terms of the agreement directly written into lines of code.
- Blockchain and Financial Reporting
    - Enhanced Data Accuracy and Integrity
    - Real-Time Reporting
    - Increased Transparency and Traceability
    - Automation with Smart Contracts
    - Intercompany Transactions
    - Secure Data Sharing
    - Simplified Consolidation
    - Reduced Audit Complexity
    - Regulatory Compliance

Cryptocurrency

- Cryptocurrency is a digital or virtual currency that uses cryptography for security.
- It operates independently of a central bank and is decentralized, meaning it is not controlled by any government or institution.
- Bitcoin, the first and most well-known cryptocurrency, was created in 2009.