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BLAB

HANDOUTS

ACCOUNTING II

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This handout is written by students with no intention of replacing university materials.

It is a useful tool for studying the subject, but does not guarantee preparation as exhaustive and complete as the material recommended by the University.

Accounting II

General Exam

Michele Rossini - BIEM16 - AY: 2024-2025

Owners' Equity

Owners' equity, also known as **stockholders' equity**, represents the **residual interest in the assets of a corporation after deducting liabilities**. It is primarily composed of two key sources:

- **Capital Contributions from Shareholders**: The fundamental components of stockholders' equity derived from shareholder contributions include:
  - **Common Stock** (Capitale Sociale): Represents the **nominal value of shares issued**.
  - **Additional Paid-in Capital** (APIC) / Share Premium (Riserva Sovrapprezzo Azioni): The **excess amount paid by investors over the nominal** or par value of shares. In European companies, APIC is often referred to as capital in excess above par.

  In closely held or family-run businesses, **other reserves** (e.g., reserves to cover losses or discretionary equity reserves) may be included as contributions from shareholders that do not directly increase common stock. Increasing common stock is costly and complex, so firms with fewer shareholders may prefer these alternative reserves.
- **Profits**: auto generated sources of financing.
  - **Retained Earnings** (Utili/Perdite portate a nuovo): Represents the cumulative profits (or losses) of a company net of dividends distributed.
  - **Revaluation Reserve**: Some reserves are created due to increases in asset values, as per specific accounting regulations, and are directly recorded under stockholders' equity instead of the income statement. In extraordinary circumstances, governments or accounting bodies may permit asset revaluations to **stabilize companies facing financial distress**:
    - During crises such as 2008 (financial crisis) and 2020 (COVID-19 pandemic), special laws allowed firms to revalue assets (e.g., real estate, intangible assets) to their fair value. This adjustment ↑ assets on the balance sheet while directly ↑ stockholders' equity (via revaluation reserves) **without impacting the income statement**. The objective was to **prevent companies from going into negative equity** and **forcing shareholders to inject capital**.

Corporate Structure & Shareholder Benefits

Corporations are **legally distinct entities from their shareholders** and are governed by a **Board of Directors (BoD)**, elected by shareholders. Shareholders **benefit from ownership** in three key ways:

1. **Voting Rights** – Influence corporate decisions and governance.
2. **Dividends** – Receive a share of corporate profits.
3. **Residual Claims** – Entitled to remaining assets after liabilities are settled in case of liquidation.

Shares and Equity Structure

The **corporate charter** (**bylaws**, statuto) outlines the **authorized number of shares** (capitale sociale deliberato). Key classifications include:

- **Issued Shares**: Shares that have been sold to investors.
- **Treasury Shares**: Shares repurchased by the company.
- **Outstanding Shares** = Issued Shares − Treasury Shares

Treasury Shares & Buybacks

Companies often repurchase their own shares for strategic reasons:

1. **Market Signaling**: A share buyback may indicate **management's confidence in the company's future prospects**.
   EG: Suppose a company is about to launch a new vehicle. Five days before the launch, the firm repurchases its shares. The market perceives this as a positive signal, leading to an increase in the stock price.
2. **Profit from Resale**: The company may resell repurchased shares at a higher price, generating **gains recorded in Additional Paid-in Capital (APIC).**
3. **Reducing Shareholder Base** (Recesso): Companies may repurchase shares to reduce the number of shareholders and **consolidate ownership**.

Companies may compensate **key employees and executives** through **equity-based incentives**:

- **Stock OPTIONS & GRANTS**: Employees receive company **shares** instead of cash if performance conditions are met. These shares often come from the company's treasury stock.

Companies may issue **shares** with **different rights to appeal** to different investor profiles. Some high-profile companies (e.g., LVMH, Formula 1, Liberty Media) operate in the Netherlands or in Luxembourg due to flexible share structure laws. Common share classifications:

- **Class A Shares**: Strong voting rights (e.g., 100 votes per share) but lower dividends. EG: Owned by Bernard Arnault (LVMH).
- **Class B Shares**: Higher dividends but reduced voting power.

Most common stock has a par value, representing the nominal value of each share.

Sale of Stock

When a company issues shares, the transaction is recorded as:

Example: Initial Issuance of Shares for €1,000 Cash

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		1000	
	Common Stock		100
	Additional Paid In Capital		900

Common Stock reflects the nominal/par value.

APIC (Share Premium) captures the excess amount paid above par.

Capital Contributions in Ongoing companies

Over time, the share capital structure evolves. Larger companies often exhibit a **higher proportion of APIC** due to **multiple funding rounds**.

EG: New Shareholder Joins the Company

Scenario:

- Luca and Pietro are equal shareholders (50% each).
- First-year losses: €-1,000.
- Second-year profit: €+100.
- Third-year profit: €+900.
- Carlo wants to join as a 1/3 shareholder.

Accounting Implications:

- Even if the book value of stockholders' equity appears low (€50), Carlo is asked to contribute **additional capital** to **compensate Luca and Pietro for their early efforts and unpaid work**.
- His investment does not go directly to Luca and Pietro but **into the company's APIC**.
- If the company later **declares dividends**, **APIC may also be distributed**.

In general, every time we have a **sale in the secondary market**: there is no impact on the company's accounts.

Treasury Stock

Treasury shares **do NOT carry voting rights**, **dividends**, or **other** shareholder **privileges** while held by the company.

Repurchases of Treasury Shares

EG: Company repurchase 7 own shares for 18€ each

DR	CR	DR (Amount)	CR (Amount)
	Cash (-A)		126
Treasury Stock (+XSE,-SE)		126	

Treasury stock is a **contra-equity account**, **reducing stockholders' equity**.

Resale of Treasury Shares at a Higher Price

EG: Company Resells 5 Shares at €19 Each

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		95	
	Treasury Stock (-XSE, +SE)		90
	Additional Paid In Capital		5

Gain from the resale is recorded as **APIC**.

Resale of Treasury Shares at a Lower Price

Example: Company Resells 2 Shares at €12 Each

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		24	
	Treasury Stock (-XSE, +SE)		36
Additional Paid In Capital		12	

Loss from the resale is recorded as **APIC**.

Key takeaways:

- **Treasury stock transactions** affect ONLY **stockholders' equity** (**NOT** the **income statement**).
- **Gains** from treasury stock resales are recorded in **APIC**, while **losses reduce** it.
- When **treasury stock is permanently retired**, it ↓ **common stock and APIC**.

Dividends

CASH Dividends

Cash dividends are **periodic payments made to shareholders as a return on their risky investment in company stock**. **Dividends are NOT an expense**: They do NOT appear in the IS.

Conditions for paying dividends:

- **Sufficient retained earnings (R/E)**
- **Sufficient cash availability**

Companies are **NOT obligated to declare dividends**. Once declared, dividends become a legal obligation.

Events:

1. **Declaration Date**: **The BoD officially declares dividends.** Legal obligation arises and a liability (Dividends Payable) is recorded. Retained Earnings (R/E) ↓ and Dividends Payable ↑ when declared.

   NB: In Italy, dividends are declared by the **Shareholders' Meeting** (not the BoD), but **based on a proposal from the BoD**.

DR	CR	DR (Amount)	CR (Amount)
Retained Earnings (-SE)		X	
	Dividend Payable (+L)		X

2. **Date of Record**: The company prepares a **list of shareholders eligible for dividends**. No journal entries are **made at this stage**.

3. **Date of Payment**: The company pays dividends to shareholders. Liability (Dividends Payable)↓. Cash ↓.

DR	CR	DR (Amount)	CR (Amount)
Dividend Payable (-L)		X	
	Cash (-A)		X

STOCK Dividends / in EU: Free Shares Capital Increase

A stock dividend is a ***distribution of additional shares of a company's common stock to its stockholders on a pro-rata basis at no cost to the stockholder***

- **Pro-rata basis** → Shareholders receive new shares in proportion to their existing holdings.
- Instead of paying cash dividends, the company transfers an amount from Retained Earnings (R/E) to Common Stock to reflect the issuance.

When a stock dividend is declared, the company must transfer an amount **from the Retained Earnings** Account (DEBIT) into the **Common Stock** Account (CREDIT) to reflect the additional shares issued.

DR	CR	DR (Amount)	CR (Amount)
Retained Earnings (-SE)		X	
	Common Stock (+SE)		X

NB: In the US there are 2 possibilities: the accounting treatment depends on the size of the stock dividend:

- **LARGE**: the distribution of shares is larger than 20-25% of the outstanding shares. For the exam he won't ask us 20-25% cases, just 10% or 30% in case.

  The amount transferred is based on the **PAR VALUE** of the shares.

  R/E is DEBITED and we Common Stock is CREDITED based on the par value of the shares

  EG: Barcelona Ltd. 200,000 shares outstanding. Issues 100,000 new shares (50% stock dividend → Large). Par value per share = $2. Market price per share = $25

DR	CR	DR (Amount)	CR (Amount)
Retained Earnings (-SE)		200000	
	Common Stock (+SE)		200000

- **SMALL**: the amount transferred is based on the **MARKET VALUE** of the shares with the difference (excess of par) credited to the Additional Paid in Capital Account. **Common Stock** is CREDITED at **par value**, and the excess is **CREDITED** to **Additional Paid-in Capital (APIC)**.

  EG: Valencia Ltd: 5,000,000 shares outstanding. Issues 500 new shares (0.01% → Small). Par value per share = $2. Market price per share = $25

DR	CR	DR (Amount)	CR (Amount)
Retained Earnings (-SE)		500*25=12500	
	Common Stock (+SE)		2*500=1000
	Additional Paid In Capital		11500

Preferred Stock

In addition to Common Stock (which every company must have), companies can issue Preferred Stock, which comes with specific rights and characteristics:

- **No Voting Rights**– Preferred stockholders do not have voting power.
- **Lower Risk**: They have priority over common stockholders in receiving dividends and in liquidation proceedings.
- **Fixed Dividend Rate**: Preferred stockholders receive a fixed dividend, which can be either:

Non-Cumulative (Current) Preferred Stock

Dividends are **paid out before common stockholders** but do **NOT accumulate if unpaid**. If no dividends are declared, preferred shareholders cannot claim unpaid dividends in the future.

EG: Company A's Capital Structure:

- 300 shares of common stock with a $1,000 par value per share.
- 200 shares of 8% non-cumulative preferred stock with a $1,000 par value per share.
- 1 year in arrears (meaning last year's dividend was not paid).
- Company declares $80,000 in dividends.

Step 1: Calculate Preferred Stock Dividend Entitlement

Preferred stockholders are entitled to 8% of their book value: $200 \times 1{,}000 \times 8\,\% = 16{,}000$

Since the preferred stock is non-cumulative, **past unpaid dividends are not carried forward**.

Step 2: Allocate Dividends

- **Preferred Stockholders** receive $\$16{,}000$.
- The **remaining** $\$64{,}000$ is distributed to **Common Stockholders**.

What if the company declares **only** $\$1{,}000$ in dividends?

- Since preferred stockholders are entitled to receive up to $\$16{,}000$, the full $\$1{,}000$ goes to them.
- Common stockholders receive nothing.

If the company does not declare dividends, preferred stockholders have no legal right to sue for unpaid amounts.

	PV	N°	Book Value	Dividend entitled to receive
Common Stock	1000	300	300000	
Preferred Stock	1000	200	200000	16000

Cumulative Preferred Stock

If dividends are not paid in full, the **unpaid amount accumulates as Dividends in Arrears**. Before common stockholders receive dividends, **all past due dividends must be fully paid**.

EG: Company A's Capital Structure (same as before):

- 200 shares of 8% cumulative preferred stock with 1 year in arrears.
- Company declares $\$80{,}000$ in dividends.

Step 1: Calculate Total Preferred Dividends (Including Arrears)

- Current Year's Dividend = $\$16{,}000$
- Arrears from Last Year = $\$16{,}000$
- Total Owed to Preferred Stockholders = $\$32{,}000$

Step 2: Allocate Dividends

- Preferred Stockholders receive $\$32{,}000$ (covering current and past due dividends).
- Remaining $\$48{,}000$ goes to Common Stockholders.

	PV	N°	Book Value	Dividend Accrued during the year	Dividend 1 year in arrear	Total
Common Stock	1000	300	300000			
Preferred Stock	1000	200	200000	16000	16000	32000

Other Relevant Information

Stock Splits (Frazionamento Azionario): ↑ the number of shares outstanding while decreasing their par value per share. It has **NO impact on the journal entries** or **total stockholders' equity**.

Purpose: To make shares more marketable and accessible to investors.

EG: A company has 1 share with a par value of $1,000. The company executes a 1,000-for-1 stock split. Now, there are 1,000 shares, each with a par value of $1. The total value remains the same, but shares become easier to trade.

Statement of Changes in Stockholders' Equity: A mandatory financial statement that **analytically tracks changes in stockholders' equity over time**. It is part of the financial statements and required in official reporting. It provides a detailed breakdown of equity components, including common stock and preferred stock changes, APIC movements, R/E updates, Dividend distributions, Treasury stock transactions

Purpose: it shows how a company's equity position evolves over time. It helps investors understand how profits, dividends, and capital transactions impact shareholders' equity.

Investments in Other Corporations

Alpha is a company that operates independently and issues bonds and common stock.

BS Alpha	
Assets	Bonds X
	Common stock Y

Omega is a company that owns more than 50% of Alpha, making Alpha a **SUBSIDIARY** and Omega the **PARENT** company. Omega has purchased:

- **Bonds** issued by Alpha: **Debt investment**
- **Common shares** of Alpha: **Equity investment**

BS Omega	
Investment (Bonds X)	
Investment (Shares Y)	

Investing in securities means purchasing a **bond** (or another liability) or **shares** issued by another company. (Titoli di debito e titoli di equity o partecipazioni).

The **accounting measurement** depends on:

- **Nature of the financial instrument**: debt vs equity
- **Intentions of the management**: control, investment, or resale

DEBT Securities				EQUITY Securities		
Investment Category	Passive			Passive	Significant Influence	Control
Level of Ownership	**HELD TO MATURITY**	**TRADING**	**AVAILABLE FOR SALE**	**<20%** of outstanding voting shares	**20-50%** of outstanding voting shares	**>50%** of outstanding voting shares
Measuring and Reporting Method	**Amortized Cost**	**Fair value** (through Net Income)	**Fair value** (through Other Comprehensive Income)	**Fair value** (through Net Income)	**Equity Method**	**Acquisition accounting and consolidation**
BS Classification	Concurrent: amount due in next year would be classified as current	Current	Current or noncurrent	Current or noncurrent	Noncurrent	N/A: financial statements are consolidated

Investment in DEBT Securities

The parent company (Omega) subscribes bonds issued by the subsidiary (Alpha).

AMORTIZED COST Method (HTM)

When management intends to hold a debt security until maturity, it is recorded in the **HELD TO MATURITY (HTM) Investment** account.

EG: on 01/01/2005 Company Omega purchases a bond issued by ABC Ltd for € 1.000.

31/12/2005 fair value is € 1.020 and interest is € 5.

31/12/2006 interest is 5 and fair value is € € 985. Loss is due to contingent conditions on the market.

15/9/2007 sale € 1.002.

Purchase (AT PAR): The **total cost of the bond** + **incidental acquisition costs** is **debited** to the HTM investment account. **Cash** is **credited** to reflect the outflow of funds.

	DR	CR	DR (Amount)	CR (Amount)
1/1/05	**HTM Investment (+A)**		1000	
		Cash (-A)		1000

Interest Earned (Accrual Principle): Interest is recognized as income when it is earned, even if it has not yet been received. Interest is credited to interest revenue and adjusted for discount/premium amortization.

	DR	CR	DR (Amount)	CR (Amount)
31/12/05	**Cash (+A)**		5	
		Interest Revenue (+R, +SE)		**5**

	DR	CR	DR (Amount)	CR (Amount)
31/12/06	**Cash (+A)**		5	
		Interest Revenue (+R, +SE)		**5**

Repayment at Maturity (Bond Redemption): When the bond matures, the company receives cash and removes the investment from the books.

	DR	CR	DR (Amount)	CR (Amount)
15/9/2007	**Cash (+A)**		1002	
		HTM Investment (-A)		1000
		Gain on Sale (+R, +SE)		**2**

FAIR VALUE Method (Trading Securities (FVTPL - Fair Value Through Profit or Loss)

Some assets and liabilities on the BS are required to be **reported at fair value** (**market value**) on the balance sheet date. The Fair Value Method applies mainly to marketable securities.

- These securities are actively traded for **short-term profits**.
- Classified as **Current Assets** on the BS.
- Changes in fair value are recorded debiting or crediting the account **Unrealized Gains/Losses** in the IS.
- Interest and dividends received are **recorded in the IS**.

EG: Company Omega Purchases a Bond Issued by ABC Ltd.

01/01/2005: Purchase price = €1,000

31/12/2005: Fair value increases to €1,020, Interest earned = €5

31/12/2006: Fair value drops to €985, Interest earned = €5

15/09/2007: Bond sold for €1,002

Purchase:

	DR	CR	DR (Amount)	CR (Amount)
1/1/05	**TS Investment (+A)**		1000	
		Cash (-A)		1000

Interest earned:

	DR	CR	DR (Amount)	CR (Amount)
31/12/05	**Cash (+A)**		5	
		Interest Revenue (+R, +SE)		**5**
	TS Investment (+A)		20	
		Unrealized Gain (+R, +SE)		**20**

Interest Earned:

	DR	CR	DR (Amount)	CR (Amount)
31/12/06	**Cash (+A)**		5	
		Interest Revenue (+R, +SE)		**5**
31/12/06	**Unrealized Loss (+E, -SE)**		**35**	
		TS Investment (-A)		35

Repayment:

	DR	CR	DR (Amount)	CR (Amount)
15/9/2007	**TS Investment (+A)**		17	
		Unrealized Gain (+R, +SE)		**17**
	Cash (+A)		1002	
		TS Investment (-A)		1002

- FOR REAL LIFE NOT EXAM: The mistake is that it is not unrealized.

5+5+2=12 HTM INVESTMENT

5+20+5-35+17=12 TS INVESTMENT

The total impact on profit remains the same, but the accounting treatment differs based on classification.

- **HTM Investment (Held-to-Maturity)**: **Conservative** approach, ignoring market fluctuations.
- **TS Investment (Trading Securities)**: **Aggressive** approach, recognizing market fluctuations in financial statements.

Aspect	HTM Investment (Held-to-Maturity)	TS Investment (Trading Securities - FVTPL)
Valuation Method	Amortized Cost	Fair Value (Market Price)
Recognizes Fair Value Changes?	❌ No	✅ Yes, recorded in IS
Risk Approach	Conservative → Ignores fluctuations	Aggressive → Shows market volatility
Accounting Impact	Only records interest earned	Records both interest & unrealized gains/losses
Profit Fluctuation Visibility	❌ Hidden	✅ Visible
Purpose	Long-term investment	Short-term trading

FAIR VALUE Method (AVAILABLE for SALE securities: FVTOCI)

Companies often invest in securities as a ***non-core business activity*** to earn a return. When a company has excess cash, it may choose to purchase **marketable securities**, which remain in its assets and are **available for resale if liquidity is needed**. However, cash management is more commonly directed toward operating activities.

In such cases, these securities are classified under the **Available-for-Sale (AFS)** category, also known as **Fair Value Through Other Comprehensive Income (FVTOCI)**.

- At **Purchase** securities are recorded at **cost**.
- **Interest revenue** and **dividend revenue** are recorded as revenue in the IS when accrued
- **At year end**, **AFS** securities are measured at their **fair value.** Unlike securities recorded at cost, which remain unchanged, fair value accounting requires periodic adjustments to reflect the current market value. However changes in fair value DO NOT affect the IS directly. Instead, unrealized gains or losses are recorded in **Stockholders' equity (SE)** under a specific section called ***Other Comprehensive Income (OCI)***.

EG:

1. A company purchases securities for $100.
2. At year-end, the market value ↑ to $115.
   - If recorded at cost, the value remains $100.
   - If recorded at fair value, the asset value ↑ by $15.
3. The adjustment does NOT impact net income, as AFS securities are not considered part of core operations. Instead:
   - Assets ↑ by $15.
   - Stockholders' Equity ↑ by $15, recorded in OCI.

Stockholders' Equity and OCI

Stockholders' Equity can ↑ not only through profits but also due to **changes in the fair value of asset**s, which are **captured** in **OCI**. For instance, if a company buys a painting in Paris and later discovers it is an authentic Monet, its value significantly ↑. This appreciation would be recorded under OCI rather than the Income Statement.

EG: Company Omega purchases a bond issued by ABC Ltd.

price 01/01/2005 € 1.000.

31/12/2005 fair value is € 1.020 and interest is € 5.

31/12/2006 interest is 5 and fair value is € € 985. Loss is due to contingent conditions on the market.

15/9/2007 sale € 1.002.

Purchase:

	DR	CR	DR (Amount)	CR (Amount)
1/1/05	AFS Investment (+A)		1000	
		Cash (-A)		1000

Interest earned:

	DR	CR	DR (Amount)	CR (Amount)
31/12/05	Cash (+A)		5	
		Interest Revenue (+R, +SE)		5
	AFS Investment (+A)		20	
		Unrealized Gain (+OCI, +SE)		20

Interest Earned:

	DR	CR	DR (Amount)	CR (Amount)
31/12/06	Cash (+A)		5	
		Interest Revenue (+R, +SE)		5
31/12/06	Unrealized Loss (-OCI,-SE)		35	
		AFS Investment (-A)		35

Repayment:

	DR	CR	DR (Amount)	CR (Amount)
15/9/2007	Cash (+A)		1002	
		AFS Investment (-A)		985
		Unrealized Gain (+OCI,+SE)		15
		Gain on Sale (+R, +SE)		2

The difference lies in the intermediate representations.

If you invest $1,000, earn $10 in interest over time, and later sell the asset for $1,002, the total cash inflow is $1,012, resulting in a net profit of $12.

Over the entire lifespan of a company, the total change in profit always aligns with the net cash difference.

- When a company is incorporated, shareholders contribute capital, which is recorded as common stock.
- At the end of the company's operations, shareholders receive back their initial investment, adjusted for any accumulated gains or losses.

Throughout this process, cash and retained earnings at the beginning and end remain consistent—what changes is the timing of when profits are recognized in the financial statements.

Investment in EQUITY Securities

Passive investment: (<20% Ownership). Treated like Trading Securities (**FVTPL** - Fair Value Through Profit or Loss). **Fair value** changes recorded in the Income Statement.

EG: Company Omega purchases shares issued by ABC Ltd.

price 01/05/2005 € 1.000.

31/12/2005 net profit of the company ABC is € 70 (TOTAL PROFIT REALIZED BY THE COMPANY) and fair value is € 1.020

28/04/2006 dividend € 5 (AMOUNT RECEIVED BY OUR INVESTEE).

31/12/2006 net loss of the company ABC is € - 140 and fair value is € € 985.

15/9/2007 sale € 1.002.

10% OF THE SHARES

Purchase:

	DR	CR	DR (Amount)	CR (Amount)
1/5/05	**Investment (+A)**		1000	
		Cash (-A)		1000

End of year:

	DR	CR	DR (Amount)	CR (Amount)
31/12/05	**Investment (+A)**		20	
		Unrealized Gain (+R, +SE)		**20**

Dividend:

	DR	CR	DR (Amount)	CR (Amount)
28/04/06	**Cash (+A)**		5	
		Dividend Revenue (+R, +SE)		**5**

End of year:

	DR	CR	DR (Amount)	CR (Amount)
31/12/06	**Unrealized Loss (+E, -SE)**		**35**	
		Investment (-A)		35

Repayment:

	DR	CR	DR (Amount)	CR (Amount)
15/9/2007	Investment (+A)		17	
		Unrealized Gain (+R,+SE)		17
	Cash (+A)		1002	15
		Investment (-A)		1002

TOT: 20+5-35+17=7

Significant Influence: (20-50% Ownership) - **Equity Method**.

Control: (>50% Ownership) - **Consolidation Method**. More complex accounting adjustments are required.

In **Italy**: Investment is recorded at cost, not fair value.

EQUITY METHOD (Metodo Patrimonio Netto)

It is used to record and measure investments when the investor has **significant influence** over the investee but does not have full control.

Significant influence is generally presumed when the investor holds between 20% and 50% of the investee's voting shares (for non-listed companies).

At **purchase**, investments are recorded at **cost**.

Changes in Perspective:

Unlike other methods, the equity method records changes in investment value based on changes in the equity of the investee.

When the investee reports a profit, its SE ↑, and so does RE.

The investor, using the equity method, recognizes this ↑ as revenue, which results in a corresponding ↑ in the investment account.

EG: For simplicity, let's assume a 100% equity method (even though, in reality, this scenario would typically involve full consolidation rather than the equity method).

The subsidiary's common stock is €100, leading to a book value of SE of €100.

Since the parent owns 100% of the subsidiary, it records the investment at €100 on its BS.

If the subsidiary earns a €20 profit, its SE increases from €100 to €120.

Under the **equity method**, the **parent immediately records**:

- DEBIT €20 in the investment account (+A)
- CREDIT €20 in revenues in the IS (Equity in invested earnings)

This does not happen under the fair value or cost method, where changes in book value are not recognized unless the asset is sold.

If the subsidiary pays out the €20 profit as dividends, its SE decreases back to €100.

The parent does not record dividend income. Instead, it adjusts the investment value:

- Investment account decreases by €20
- Cash increases by €20

EG: Company Omega purchases shares issued by ABC Ltd.

price 01/05/2005 € 1.000.

31/12/2005 net profit of the company ABC is € 70 (TOTAL PROFIT REALIZED BY THE COMPANY) and fair value is € 1.020

28/04/2006 dividend € 5 (AMOUNT RECEIVED BY OUR INVESTEE).

31/12/2006 net loss of the company ABC is € - 140 and fair value is € € 985.

15/9/2007 sale € 1.002.

40% OF THE SHARES

Purchase:

	DR	CR	DR (Amount)	CR (Amount)
1/5/05	**Investment (+A)**		1000	
		Cash (-A)		1000

End of year:

	DR	CR	DR (Amount)	CR (Amount)
31/12/05	**Investment (+A)**		70*0.4=28	
		Equity in Investee Earning (+R, +SE)		**28**

Dividend:

	DR	CR	DR (Amount)	CR (Amount)
28/04/06	**Cash (+A)**		5	
		Investment (-A)		5

End of year:

	DR	CR	DR (Amount)	CR (Amount)
31/12/06	**Equity in Investee Losses (+E, -SE)**		**140*0.4=56**	

	DR	CR	DR (Amount)	CR (Amount)
31/12/06		**Investment (-A)**		56

Repayment:

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		1002	
	Investment (-A)		1000+28-56-5=967
	Gain on Sale (+R,+SE)		**35**

TOT: 28-56+35=7

EXERCISE: Cole Company has 288000 shares of common stock authorized, 260000 shares issued and 60000 shares of treasury stock. The company's BoD has declared a dividend of 65 cents per share. What is the total amount of the dividend that will be paid?

Outstanding shares = Issued shares − Treasury shares = $260{,}000 - 60{,}000 = 200{,}000$

Total dividend = Outstanding shares × Dividend per share = $200{,}000 \times 0.65 = 130{,}000$

EXERCISE:

Less than 20% voting stock ownership	**FVTPL** (Current Fair Value)
More than 50% voting stock ownership	**Acquisition accounting and consolidation**
At least 20% but not more than 50% voting stock ownership	**Equity Method**: Original cost plus proportionate part of the income of the affiliate les proportionate part of the dividends declared by the affiliate
Bonds held to maturity	**Amortized Cost**: Original cost less any amortization of premium or discount with purchase

Cash Flow Statement

To understand the **quality** of **NET INCOME**: **Income statement**

To understand the **quality** of **CASH FLOWS**: **Cash flow statement**.

Introduction

While net income is a key measure of profitability, ***cash is king*** when assessing a company's financial health.

The Cash Flow Statement (CFS) highlights:

- A **firm's ability to generate cash internally**.
- How effectively it **manages assets and liabilities**.
- The **details of external financing activities**.

The CFS explains **how the cash balance on the BS** at the beginning of the period transitions to the cash balance at the end of the period.

It provides a clear view of liquidity, ensuring that a company can meet its obligations, fund operations, and invest in growth.

Definitions

For the purpose of the CFS, **cash** includes both:

- **cash**: physical currency, bank deposits)
- **cash equivalents: short term**, **highly liquid investments** that are both:
  - **Readily convertible to known amounts of cash** and
  - So **near to maturity**, there is a **little risk that the value will change if interest rate changes**.

The CFS reports cash inflows and outflows in 3 broad categories:

1. **OPERATING Activities**: cash inflows and outflows related to **revenues and expenses reported on the IS**, related to the **ordinary business activity**. There are 2 alternative approaches to the statement for presenting the operating activities that leads to the same number:
   - **DIRECT method**:

BOP	$0.00	$0.00	$0.00
CF Operating Activity	$145,000.00	$15,000.00	-$35,000.00
CF Investing Activity	-$55,000.00	-$490,000.00	$30,000.00

BOP	$0.00	$0.00	$0.00
CF Financing Activity	-$15,000.00	$550,000.00	-$190,000.00
EOP	$75,000.00	$75,000.00	$75,000.00

- **INDIRECT method**: later explained.

2. **INVESTING Activities**: cash inflows and outflows related to the **purchase and disposal of long live productive assets** and **investments in securities** of other companies.
3. **FINANCING Activities**: exchanges of cash with **creditors** (debt holders) and **owners** (stock holders).

The combination of **net cash flow from operating activities**, net cash flow **from investing activity**, net cash flow **from financing activities MUST equal** the **change in cash**.

Preparation of Cash Flow Statement (CFS) with Indirect Method

A. **Preliminary activities**: the preparation of the CFS using the indirect method starts from the **BS** and the **IS**. In other words, the CFS is derived from the two primary financial statements rather than being created independently. As a preliminary activity you shall:

   1. **Calculate the change** in **each BS** account.
   2. **Classify the accounts** as relating to operating or investing or financing activities. Each will be analyzed when you will be calculating cash flows for that category.

   EG: Identify and classify the area to which they pertain.

		2014	2013	
	Cash	$112,000.00	$15,000.00	$97000.00
Operating	Account receivables	$25,000.00	$70,000.00	-$45000.00
Investing	Equipment	-	$20,000.00	-$20000.00
	TOTAL ASSETS	**$137,000.00**	**$105,000.00**	
Operating	Accounts payable	-	$65,000.00	-$65000.00
Financing	Bonds	$35,000.00	-	$35000.00
O&F	Retained earnings	$72,000.00	$10,000.00	$62000.00
Financing	Common stock	$30,000.00	$30,000.00	$0.00
	TOTAL LIAB+SH EQ	**$137,000.00**	**$105,000.00**	
	INCOME STATEMENT			

		2014	2013	
Operating	Sales revenues	$250,000.00		
Operating	Salaries	-$180,000.00		
Investing	depreciation expense	-$2,000.00		
Investing	Gain on disposal of asset	$4,000.00		
	net income	**$72,000.00**		

This is what it will be asked in the exam:

BOP	**$15,000.00**
CF Operating Activity	
CF Investing Activity	
CF Financing Activity	
EOP	**$112,000.00**

During 2014:

1. Equipment was sold
2. Bond issued at par on December 31st
3. Paid cash dividends

B. **CF from operating activities**: **starts from net income** and works **bottom-up**, making adjustments for exceptions and non operating items.

The IS represents the difference between revenues and expenses from the company's operating activities. However, net income does not necessarily equal cash flow from operations, except in rare cases. Why? Because net income is based on accrual accounting, where:

- **Revenues** are recorded **when earned**, not when cash is received
- **Expenses** are recorded **when incurred**, not when cash is paid.

Thus, we need to make **2 different kinds of adjustments** to net income to calculate CF from operating activities.

1. **Adjust NET INCOME for the NON Operating Revenues and Expenses**:

   The book refers to ***non-cash items***, but a more accurate term is ***non-operating items*** because some non-operating transactions still involve cash.

   EG: **Gain on disposal of assets** is recorded as revenue but does not come from core business operations. **Depreciation and amortization** reduce net income but do not involve cash outflows.

You have to look at the next 3 tables as if it was only one.

Net Income	$72,000.00
+Depreciation Expense	$2,000.00
-Gain on disposal of asset	-$4,000.00
Subtotal	**$70,000.00**

The **subtotal** is defined as the **difference between Operating Revenues and Operating Expenses** excluding all those revenues and expenses that pertain to different areas of the CFS.

2. **Adjust the SUBTOTAL for the changes in the Operating Assets and Liabilities**. In details:

ASSETS:

- **Add** the balance of **Operating Assets at Beginning of the year** because those assets were turned into a cash (INFLOWS) ↑ during the year.
- **Subtract** the balance of **Operating Assets at the end of the year** because NOT all the revenues recorded in the IS turned into cash (INFLOWS) during the year.

+A/R	$70,000.00
-A/R	-$25,000.00

LIABILITIES:

- **Subtract** the balance of **Operating Liabilities at Beginning of the year** because those liabilities were turned into a cash (OUTFLOWS) ↓ during the year.
- **Add** the balance of **Operating Liabilities at the end of the year** because NOT all the expenses recorded in the IS turned into cash (OUTFLOWS) during the year.

-A/P	-$65,000.00
+A/P	$0.00
CF from Operating Activity	**$50,000.00**

BOP	$15,000.00
CF Operating Activity	$50,000.00
CF Investing Activity	
CF Financing Activity	
EOP	**$112,000.00**

C. **CF from investing activities**: related to the purchase and disposal of long lived assets including investments in securities. Preparing this section of the CFS requires an analysis of the accounts related to property plant and equipment, intangible assets, investments.

Remember:

1. **Only purchases paid for cash are included**
2. The **amount of cash received** from the sale of the assets **is included regardless of whether the assets are sold at a gain or at a loss**.

EG:

T-Accounts of INVESTING Activities:

Equipment			Depreciation Expense		Gain on Disposal of Assets		Cash	
BB	**$20000**		$2000			$4000	$22000	
		$2000						
		$18000						
EB	**$0**							

During the year, equipment was sold. When we sell the plant

DR	CR	DR (Amount)	CR (Amount)
Depreciation Expense (+E)		$2000.00	
	Equipment (-A)		$2000.00

*We credited equipment to avoid the accumulated depreciation account.

Depreciation expense DIDN'T IMPLY any change in the balance of cash.

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		$22000.00	
	Equipment (-A)		$18000.00
	Gain on Disposal of Assets (+R,+SE)		$4000.00

*we debit cash because we have no Notes Receivable.

BOP	**$15,000.00**
CF Operating Activity	$50,000.00
CF Investing Activity	$22,000.00

BOP	$15,000.00
CF Financing Activity	
EOP	$112,000.00

D. **CF from financing decisions**: related to the exchange of cash with creditors (bondholders) and owners (stockholders).

It's the analysis of the accounts related to FINANCIAL liabilities (short term and long term) and STOCKHOLDERS' EQUITY accounts.

Remember:

1. **Cash dividend payment** is **FINANCING**
2. **Repayment of debt principal** is **FINANCING**, while **payment of interest expense associated with a liability** is **OPERATING**
3. if **debt or stock is issued for other than cash** it is **NOT included in this section** | e.g. stock dividend: not related to a decrease in cash, but related to a decrease in R/E

T Accounts of FINANCING Activities:

Bonds		
	$0	**BB**
	$35000	**EB**

Common Stock		
	$30000	**BB**
	$30000	**EB**

Retained Earnings		
	$10000	**BB**
	$72000	**EB**

Journal entries:

Bond issued at par on December 31st (no financial expenses in 2014), collected € 35.000

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		$35000.00	
	Bonds (+L)		$35000.00

What we get at the end of the IS of the year is the Income Summary (Net Income=$72000).

DR	CR	DR (Amount)	CR (Amount)
Income Summary (+A)		$72000.00	
	Retained Earnings		$72000.00

Paid dividends, € 10.000

DR	CR	DR (Amount)	CR (Amount)
Retained Earnings (-SE)		$10000.00	
	Cash (-A)		$10000.00

35000-10000=$25000

BOP	$15,000.00
CF Operating Activity	$50,000.00
CF Investing Activity	$22,000.00
CF Financing Activity	$25,000.00
EOP	**$112,000.00**

Completing the Statement and Additional Disclosures

Companies must provide **2 additional disclosures to the CFS**.

- **NON-Cash Investing and Financing activities**: Certain transactions are important, but not relevant for cash flow statement purposes, these NON-Cash activities shall be disclosed at the bottom of CFS.

  EG: The contribution (conferimento) in kind, when issuing new stocks but not receiving cash.

- **Other Details**: Companies must disclose explicitly:
  - **cash paid for INTEREST**
  - **cash paid for INCOME TAXES**

  (often, these data are grouped in broader items in the operating section).

Exercise on CFS

		EoP	BoP	
	Cash	$15,000.00	$7,000.00	
O	Inventory	$14,000.00	$18,000.00	
O	Account receivables	$2,000.00	$5,000.00	
I	Land	-	$10,000.00	
I	Building	$40,000.00	$25,000.00	BoP: 35.000-Acc Dep 10.000
	TOTAL ASSETS	$71,000.00	$65,000.00	
O	Accounts payable - inventory	$6,000.00	$13,000.00	
I	Notes payable - Building	$20,000.00	-	

		EoP	BoP	
F	Bonds	$25,000.00	$30,000.00	
O&F	retained earnings & profit	$5,000.00	$7,000.00	
F	Contributed capital	$15,000.00	$15,000.00	
	TOTAL LIAB+SH EQ	$71,000.00	$65,000.00	
	INCOME STATEMENT			
O	Revenues	$40,000.00		
O	COGS	-$32,000.00		
O	interest expense	-$2,000.00		
I	depreciation expense	-$5,000.00		
I	Gain on sale of land	$1,000.00		
	net income	$2,000.00		

Net Income	**$2,000.00**
+Depreciation Expense	$5,000.00
-Gain on disposal of asset	-$1,000.00
Subtotal	$6,000.00
Inventory	+18000-14000=4000
Accounts Receivable	+5000-2000=3000
Accounts Payable	-13000+6000=-7000
CF Operating Activity	**$6,000.00**

Sale of Asset	$10,000.00
Gain on Sale of Asset	$1,000.00
CF Investing Activity	**$11,000.00**

For the financing activity you need to find out which are the dividends, in this case 4000$.

BB	$7,000.00
Net income	$2,000.00
Dividends	**-$4,000.00**
CF Financing Activity	**$5,000.00**

Bonds	-$5,000.00
Dividends	-$4,000.00
CF Financing Activity	**-$9,000.00**

BOP	**$7,000.00**
CF Operating Activity	$6,000.00
CF Investing Activity	$11,000.00
CF Financing Activity	-$9,000.00
EOP	**$15,000.00**

Income Taxes

Income taxes are a subcategory of taxes, which encompass various forms, such as income tax, VAT, sales tax, registry tax, and stamp duties.

From an accounting perspective, income taxes represent a cost to companies. This cost is debited, while the corresponding liability to the tax authority is credited.

The obligation to pay taxes arises solely from the generation of **positive income**. In other words, as a company earns profits, it is required to contribute to public expenses through taxation.

In Italy, the highest-ranking legal provision on taxation is ***Article 53 of the Constitution***, which establishes the principles of tax equity and the duty of every citizen to contribute based on their ability to pay.

Down payments, tax liability, and outstanding balance due

During the fiscal year: down payments

For simplicity, we assume that the accounting period coincides with the calendar year.

Many countries require **advance down payments** for income taxes, with specific deadlines and amounts varying by jurisdiction.

In Italy, advance payments are generally due in two installments:

- **June 30**: **40% of the gross tax liability** of the **preceding fiscal year**
- **November 30**: **60% of the gross tax liability** of the **preceding fiscal year**

At the date of each down payment, the journal entry is (example: 30 June 2018):

DR	CR	DR (Amount)	CR (Amount)
Advance Tax Payment (or Prepaid Taxes) +A		X	
	Cash (-A)		X

On the date of each down payment, the journal entry records the advance payment as a **current asset**. If no tax liability exists at the end of the year, the amount paid may be:

- **Carried forward to offset future taxes**,
- **Claimed back as a refund**, or
- **Used to offset other tax payables** (e.g., VAT).

An advance tax payment is similar to a **prepaid expense**, but with a key difference: If the expected tax liability does not materialize, the advance can be refunded or used against other tax obligations.

End of fiscal year: tax liability

At year-end, after adjusting entries, the company computes the **income tax expense** based on the taxable income.

At this stage, the ***tax liability*** and the ***tax receivable for down payments*** made are **offset**.

Since income taxes are calculated on the company's final taxable income, this is the **last journal entry before closing the books** and preparing financial statements.

If income taxes were calculated earlier, they would be inaccurate because:

- The company first needs to determine total revenues and expenses,
- Then, it computes income before taxes,
- Finally, it determines the actual tax liability.

On December 31, the company offsets the tax liability against the advance payments to determine the net receivable/payable to be reported on the balance sheet (example: 31 December 2018):

DR	CR	DR (Amount)	CR (Amount)
Income Tax Expense (+E)		X	
	Income Tax Payable (+L)		X
Income Tax Payable (-L)		X	
	Advance Tax Payments (-A)		X

Subsequent year: offsetting the outstanding balance

On June 30 of the following year:

If the **tax receivable (advance payments) < the tax liability**: the company must pay the **outstanding balance** from the previous fiscal year and must **make the first installment of the tax down payment for the current year**.

If the **tax receivable (advance payments) > the tax liability**, the excess can be:

- Carried forward to future years,
- Requested as a refund, or
- Used to offset other tax obligations.

DR	CR	DR (Amount)	CR (Amount)
Income Tax Payable (-L)		X	
	Cash (-A)		X

30 June 2019 - Journal entry to pay the outstanding balance due for 2018. After the payment of the balance for 2018, the first installment for 2019 is paid – see slide 7

EG:

Lamar Company begins operations on 1 September 2022. On 30 November, Lamar estimates that they will owe taxes of € 50.000, so they pay that as a down payment to the tax authority. On 31 December, Lamar's fiscal year ends, and they calculate that good December sales will result in them actually owing € 65.000 to the tax authority. On 30 June 2023, they pay their outstanding balance for 2022 and make their first tax down payment for 2023 using the assumption that 2023's income will be the same as 2022's. What journal entries does Lamar need to make on these dates?

1. **November 30, 2022 – Down Payment**: Lamar Company estimates its tax liability at €50,000 and makes a down payment to the tax authority.

	DR	CR	DR (Amount)	CR (Amount)
11/30/22	**Advance Tax Payments (+A)**		$50000.00	
		Cash (-A)		$50000.00

2. **December 31, 2022 – Year-End Tax Liability Calculation**: At year-end, Lamar realizes that, due to strong December sales, the actual tax liability is €65,000 instead of €50,000.

	DR	CR	DR (Amount)	CR (Amount)
12/31/22	**Income Tax Expense (+E)**		$65000.00	
		Income Tax Payable (+L)		$65000.00

Since €50,000 has already been paid as an advance tax payment, the outstanding balance is:

€65,000 – €50,000 = €15,000 still owed.

	DR	CR	DR (Amount)	CR (Amount)
12/31/22	**Income Tax Payable (-L)**		$50000.00	
		Advance Tax Payments (-A)		$50000.00

At this stage, Lamar still has €15,000 in outstanding tax payable.

3. **June 30, 2023 – Payment of Outstanding Balance & First Down Payment for 2023**: On June 30, 2023, Lamar:

   - Pays the remaining €15,000 tax liability for 2022.
   - Makes the first down payment for 2023 (assuming 2023's income is expected to be the same as 2022).

   Since 2022's total tax liability was €65,000, the first installment for 2023 will be

   40% of €65,000 = €26,000

	DR	CR	DR (Amount)	CR (Amount)
06/30/23	Income Tax Payable (-L)		15000	
		Cash (-A)		15000
	Advance Tax Payments (+A)		26000	
		Cash (-A)		26000

At this point:

- The 2022 tax liability is fully settled
- The first installment for 2023 has been made

Taxable Income and Income Tax Expense

The method for **calculating income taxes** is largely **standardized** worldwide (except in tax havens where corporate taxes may be zero). However, this process is not intuitive due to differences between accounting standards and tax regulations.

Why is Tax Computation Not Intuitive?

The Accounting System is based on:

- Accounting Concepts
- Accounting Standards (US GAAP, IFRS, or local GAAP)
- Estimates and Assumptions (used in adjusting entries)

Since many accounting entries rely on judgment and estimates, they can be manipulated to reduce taxable income. For instance:

- Depreciation expense depends on an estimated asset lifespan.
- Bad debt expense requires subjective evaluation.
- Contingent liabilities are categorized as "probable" or "possible" based on expert opinions.

Thus, **Profit Before Taxes (PBT)** in the IS is **influenced** by **assumptions** and **may not accurately reflect taxable income**. To prevent tax evasion, Tax Laws impose rules defining which revenues and expenses are recognized for tax purposes.

In Italy, the main Income Tax Law is Presidential Decree No. 917 of 1986. Similar regulations exist globally, aiming to:

1. **Exclude certain revenues from taxation** (non-taxable revenues).
2. **Disallow certain expenses** (non-deductible expenses).

Thus, Taxable Income (TI) is calculated as:

Taxable Income = Revenues − Expenses Recognized by Tax Law

Which usually differs from:

Income Before Taxes = Revenues − Expenses (GAAP)

We do NOT need two Accounting Systems. There is **only one Accounting System** that follows **GAAP/IFRS**. However, **Taxable Income** is computed **separately**, outside the double-entry bookkeeping system, by adjusting the financial results for tax purposes.

EG: Mosquito Ltd sells water bottles. The company's directors, Mark and Carla, use the company credit card to buy a gold watch and a diamond ring for personal use.

1st Question: Should These Purchases Be Recorded in the Company's Accounting Books?

Yes. Since they were paid with the company's credit card, the transaction must be recorded, affecting cash (credit) and expenses (debit).

2nd Question: What Does the Company's Income Statement Show?

The financial statements include all revenues and expenses recorded under GAAP:

Income Statement			
Cost of Goods Sold	84000	Sales Revenues	100000
Watch & Ring	9000		

Income Statement Mosquito LTD – Profit before tax € 7.000

3rd Question: Are All These Revenues and Expenses Recognized for Tax Purposes?

No. According to Tax Law:

- Taxable Revenue: Recognized
- Cost of Goods Sold (COGS): Deductible
- Personal Purchases (watch & ring): ❌ Not Deductible

General tax law principles state that personal expenses cannot be deducted. If an expense is unrelated to the business activity, it is ignored for tax purposes.

Income Statement			
Cost of Goods Sold	84000	Sales Revenues	100000
~~Watch & Ring~~	~~9000~~		

4th Question: How Is Taxable Income Computed?

Since there is no separate accounting system for tax purposes, the calculation is done outside the books:

- Start with Profit Before Taxes
- Add back non-deductible expenses
- Subtract non-taxable revenues

Tax Computation – Mosquito Ltd

Profit Before Tax	**7000**
+NON Deductible Cost	9000
Taxable Income	**16000**

Applying the Tax Rate

Taxable Income = €16,000

Tax Rate = 30%

Income Tax Expense $= 16{,}000 \times 30\,\% = €4{,}800$

DR	CR	DR (Amount)	CR (Amount)
Income Tax Expense (+E)		4800	
	Income Tax Payable (+L)		4800

Income Statement			
Cost of Goods Sold	84000	Sales Revenues	100000
Watch & Ring	9000		
Income Tax Expense	4800		

Net profit Mosquito Ltd = € 2.200

In summary:

1. During the year, tax down payments are made and recorded as current assets.
2. At year-end, Taxable Income is computed outside the accounting system by:
   - Adding back non-deductible costs
   - Subtracting non-taxable revenues
3. Once Taxable Income is determined, the applicable tax rate is applied to compute Income Tax Expense.
4. The final journal entry records:
   - Income Tax Expense
   - Tax Liability
5. At year-end, tax down payments are offset against the liability. If a balance remains due, it is paid in the following year.

Why does taxable income differ from GAAP?

The goal of **financial accounting** is to provide **useful information to stakeholders**, enabling them to make informed decisions about a company.

In contrast, income tax calculations serve two primary objectives:

- **Raising revenue** for the government.
- **Influencing behavior** by incentivizing or discouraging certain economic activities.

Since tax authorities do not prioritize the usefulness of taxable income for investors, they apply specific rules that deviate from GAAP accounting.

Key Reasons for Differences Between Taxable Income and GAAP Income

1. **Preventing Manipulation and Ensuring Stable Tax Revenues**: Accounting standards rely on **estimates and subjective judgments**, which can be **exploited** to reduce taxable income.

EG:

- **Bad debt expense** requires estimates → To prevent manipulation, tax laws often disallow it.
- **Goodwill impairments** depend on subjective valuation → Tax authorities may ignore or limit them.
- **Depreciation methods** vary widely → Tax authorities impose standardized calculations.

By **restricting the use of estimates**, tax laws **stabilize tax revenues** and **prevent earnings manipulation**.

2. **Using Taxes to Influence Behavior**: Tax authorities encourage or discourage specific business decisions by adjusting taxable income calculations.

Encouraging certain behaviors:

- Excluding some revenues from taxation (e.g., government grants for research)
- Allowing additional deductions (e.g., R&D tax incentives)
- Allowing tax credits (e.g., green energy investments)
- Accelerating depreciation schedules to stimulate investment

Discouraging certain behaviors:

- Disallowing tax deductions for non-essential or harmful expenses (e.g., luxury items, high-pollution activities)
- Imposing surtaxes on specific revenues (e.g., carbon taxes)

As you have learned, the goal of financial accounting is to provide information to company stakeholders so they can make good decisions about the company.

Income taxes are different. Tax authorities do not care about how useful taxable income is. Instead, there are two goals in calculating taxable income:

1. raising revenue for the government and
2. providing incentives for socially beneficial behaviors and disincentives for socially detrimental behaviors.

Permanent and Temporary differences

To calculate Taxable Income, adjustments are made to GAAP Profit Before Taxes. These adjustments create:

1. **Permanent Differences**:

- These revenues/expenses never impact taxable income.
- They are excluded permanently from tax calculations.
- **EG**: Personal expenses (e.g., luxury purchases) are never deductible.

2. **Temporary Differences**:

- These revenues/expenses are recognized for tax purposes at a different time than for accounting purposes.
- They create **Deferred Tax Assets (DTA)** or **Deferred Tax Liabilities (DTL)**.

Scenario	Taxable Income vs. GAAP Income	Effect
Temporary Increase (Taxable Income > GAAP Income)	Deferred Tax Asset (DTA)	Future tax savings
Temporary Decrease (GAAP Income > Taxable Income)	Deferred Tax Liability (DTL)	Future tax payments

EG: Deferred Tax Liability (DTL)

Bronco Ltd buys a medical research machine with a 10-year useful life.

- GAAP: Depreciation expense is spread over 10 years.
- Tax Law: The full cost is immediately deductible in Year 1.

Effect:

- **In Year 1**: Taxable Income is lower than GAAP Income (due to full deduction)

- **In Future Years**: GAAP will still recognize depreciation expense, but for tax purposes, no more depreciation will be allowed.
- **Result**: Bronco will pay higher taxes in future years.

Solution: Record a Deferred Tax Liability (DTL), indicating that today's tax savings will lead to higher tax payments in the future.

EG: Deferred Tax Asset (DTA)

Bronco Ltd buys a private jet for the CEO with a 10-year useful life.

- GAAP: Depreciation is recorded over 10 years.
- Tax Law: Requires a 25-year depreciation period (to discourage private jet use).

Effect:

- **In Year 1**: GAAP recognizes higher depreciation than tax law allows → Taxable Income is higher than GAAP Income.
- **In Future Years**: Bronco continues to deduct depreciation for tax purposes after it stops for GAAP purposes.
- **Result**: Bronco will pay lower taxes in future years. **Solution**: Record a Deferred Tax Asset (DTA), reflecting today's higher tax cost but future tax savings.

Review Session Income Tax EX1

Company ABC is resident for tax purposes in Italy.

The tax consultant of the company is computing ABC's income taxes for year X. Here below her findings:

- ABC's profit before tax is Euro 174.000;
- during year X, ABC has borne costs for Euro 32.000 for the use of company vehicles that are also enjoyed by the employees during their off-work personal time;
- during year X, ABC has received a dividend distribution from the controlled Company XYZ for Euro 23.000;
- during year X, ABC recorded Euro 6.000 as a bad debt expense / allowance for doubtful accounts (the allowance is set up for the first time during year X).

Considering that:

- costs borne by a Company in relation to the use of vehicles that are also enjoyed by the employees during their off-work personal time are only 20% tax deductible (i.e. only 20% of the amount can be deducted);
- the dividends were paid by Company XYZ out of its past net income/retained earnings (which is already net of taxes) and therefore they are not to be taxed a second time to Company ABC for 95% of their amount; hence, just 5% of the dividend revenue is taxed and 95% is exempt for tax purposes;
- bad debt expense is tax deductible within 0,5% of a Company's outstanding trade receivables at year end (which, in the present case, are Euro 920.000); the excess amount is deductible only if (and in the fiscal year when) the uncollectible account is written off;
- Tax rate is 30%;

A. Please determine ABC's taxable income for year X using the chart provided (please turn the page).

Profit before tax PBT: 174000€

+ **Non deductible expenses**: 80% 32000€=25600€

- **95% x23000€=21850€**

Bad debt expense included in PBT is 6000

The maximum amount deductible is: 920000€x0.5%=4600€

6000-4600=1400€

+ **non deductible expense: 1400€**

The taxable income is: 179150€

Tax expense: 179150*0.3=53,745€

B. Please determine ABC's income tax payable and net income for year X.

Net income for year x:

PBT 174000

IN.T.E 53745

NET INCOME 120255

Assume that the company paid Euro 45.000 in advanced tax payments (= down payments) for the fiscal year.

C. Will a cash tax balance be due in year X+1? Why? What would be the amount of the balance due, if any?

Yes. Because the tax are higher than advance payment. End of June of subsequent year (x+1) we have to pay the difference.

Gross tax liability: 53745

- advanced payment: 45000

Net tax liability: 8745€

D. Show the journal entries on December 31, X and June 30, X+1 according to Italian legislation (balance only – please skip any payment in advance due).

	DR	CR	DR (Amount)	CR (Amount)
31/12/x	Income Tax Expense (+E)		53745	
		Income Tax Payable (+L)		53745
	Income Tax Payable (-L)		45000	
		Advance Tax Payments (-A)		45000
30/6/x+1	Income Tax Payable (-L)		8745	
		Cash (-A)		8745

E. Which of the above tax variations is/are permanent? Which of the above variations is/are temporary (and what are the consequences from an accounting standpoint)?

+ Non deductible expenses: 80%x32000€=25600€. **PERMANENT VARIATION**

- 95% x23000€=21850€ **PERMANENT VARIATION**

+ non deductible expense: 1400€ **TEMPORARY VARIATION**

Bad debt expense is temporary because in the future we could subtract the amount in the tax returns.

Review Session Income Tax EX2

This exercise is the continuation of the previous one and it refers to fiscal year X+1.

Company ABC is resident for tax purposes in Italy.

The tax consultant of the company is computing ABC's taxable income for year X+1. Here below her findings:

- ABC's profit before tax is Euro 193.000.
- Company ABC sold some equipment during the year, and recorded a "gain on disposal of assets" of Euro 17.500;
- Company ABC incurred a credit loss of Euro 1.000 with reference to a trade receivable recorded in year X, for which an "allowance for doubtful accounts" was created at year end;
- Company ABC distributed dividends to its shareholders of Euro 12.500 in year X+1.

Considering that:

- the "gain on disposal of assets" can be taxed either in a single tax year, or in 5 equal installments (one per tax year, over 5 years, starting from X+1) and management opts to use the installment approach;
- the credit loss above was covered by releasing a corresponding amount of the bad debt allowance, using first the amounts non already deducted in the past;
- Tax rate is 30%;

A. Please determine ABC's taxable income for year X+1 using the chart provided (please turn the page).

PBT 193000

$-\frac{4}{5}$**x17500** **-14000** we use the minus because the rest of the gain will be taxed in the subsequent four. We have to reduce our PBT.

We can recover the amount that became certain this year (talking about bad debt expense)

- Reversal effect of the variation that in the past created deferred tax assets**: -1000€**

TAXABLE INCOME 178000€

Tax expense @ 30% 53400€

B. Please determine ABC's income tax payable and net income for year X+1.

NET INCOME=PBT-Taxes=193000-53400=139,600€

Assume that the advanced tax payments due were duly paid for tax year X+1 according to the Italian legislation.

C. Will a cash tax balance be due in year X+2? Why? What would be the amount of the balance due, if any?

During x+1 it was required for the company to pay down payments of 53745€, so during x+1 we paid advance payments of 53745€. That amount is higher than the gross tax liability of year x+1 so there wont be any other payments at the end of x+2.

D. Show the journal entries on December 31, X+1 and June 30, X+2 according to Italian legislation (balance only – please skip any payment in advance due).

	DR	CR	DR (Amount)	CR (Amount)
31/12/x+1	Income Tax Expense (+E)		53400	
		Income Tax Payable (+L)		53400
	Income Tax Payable (-L)		53400	
		Advance Tax Payments (-A)		53400
30/6/x+2	Income Tax Payable (-L)		0	
		Cash (-A)		0

E. Which of the above tax variations is/are permanent? Which of the above variations is/are temporary (and what are the consequences from an accounting standpoint)?

PBT 193000

$-\frac{4}{5}$**x17500** **-14000** **TEMPORARY VARIATION. Deferred tax liability.**

- Reversal effect of the variation that in the past created deferred tax assets**: -1000€** **REVERSAL (not permanent or temporary)**

Financial Statements Presentation, Reclassification and Analysis

Financial statements reflect **transactions**. Each transaction is the result of a company's OPERATING DECISION as it implements its business strategy.

A comprehensive understanding of the FS of a company is crucial to understand its whole business PURPOSE and MISSION.

Difference between Consolidated and Non-Consolidated FS

Feature	CFS	Non CFS (aka Standalone FS)
What it includes	Financials of the parent company and all subsidiaries combined	Financials of only one company (no subsidiaries included)
Purpose	Shows the overall financial health of a corporate group as if it were one entity	Shows the individual financial position of a single company
Used by	Large corporations with multiple subsidiaries	Individual businesses or parent companies before consolidation
Accounting Treatment	Eliminates internal transactions (eg sales between parent and subsidiaries)	Includes only the company's own transactions
Regulatory Requirement	Required by IFRS, GAAP and financial regulators for large corporations	Usually required for local compliance or tax purposes

EXTERNAL DECISION MAKERS

They Present and potential owners, Investment analysts, Creditors, Banks, Tax authorities

They can access **only the OFFICIAL** financial statements of a limited liability company downloadable from the Public Register of Companies.

These statements provide:

- Aggregated data
- Limited information
- Details often restricted to legal requirements

  EG:

  - No list of customers or suppliers
  - No contractual terms regarding discounts, prices, or payment timelines
  - Limited information on tangible and intangible assets (only broad classifications)
  - No disclosure of asset value in use unless impaired, and even then, calculation methods may not be detailed

FORMAT:

- **US GAAP**: **10-K filings**
- **IAS/IFRS**: **ESEF format** (European Single Electronic Format)
- **ITA GAAP**: **XBRL format (**standardized machine readable format used for tagging financial data in SEC fillings, including 10-K)

CONTENT:

- IS and BS are always **compulsory**.
- Other statements, notes, and reports may be required depending on the company's size and applicable regulations.

U.S. Financial Statements (10-K filings):

- Required by the SEC
- Provides a comprehensive summary of a company's financial performance.
- Requires XBRL tagging
- **CONTENT** organized in 5 sections:
  1. **Business**: Overview of operations
  2. **Risk Factors**: Risks the company faces or may face
  3. **Selected Financial Data**: Key financial information over the last five years
  4. **Management's Discussion and Analysis (MD&A)**: Commentary on financial condition and results
  5. **Financial Statements and Supplementary Data**: Audited financials including the independent auditor's certification

EU Financial Statements (ESEF):

From 2020, issuers on EU regulated markets must prepare annual IFRS reports in European Single Electronic Format (ESEF) according to the XBRL format.

- **CONTENT**: distinct documents (related to type and size of the company):
  - **Separate Financial Statements** (Income Statement, Balance Sheet, Statement of Cash Flows, Statement of Changes in Equity)
  - **Consolidated Financial Statements**
  - **Minutes of the Shareholders' Meeting approving the financial statements**
  - **Directors' Management Report**
  - **Board of Auditors' Report**
  - **List of Company Associates**

- **Audit Report**

Beyond financial statements, companies may also publish:

- ESG Reports
- Sustainability Reports
- Non-Financial Declarations (DNF)

These provide additional insights into environmental, social, and governance (ESG) performance.

INTERNAL DECISION MAKERS:

They are the BoD, Managers, Key employees, Consultants. They have **access to the full financial information package**. The larger is the company, the more crucial is the accounting system: the IT infrastructure shall be adequate to the number and complexity of transactions.

Main issues:

1. Sometimes, IT systems are not adequate / timely for reporting purposes
2. Interrelations between different accounting softwares can cause relevant reporting issues (example of different softwares in the same company: one to issue invoices to customers, one to match credit card sales with invoices, one to keep track of orders from clients, one to record inventory increase and decrease, one to allocate properly the employees'expenses…)
3. To use an accounting software, employees must be trained, and training takes time and it is expensive!

F/S Reclassification

All the activities related to the F/S analysis can be carried out by both categories of users; nevertheless, obviously, the output generated by an «internal user» can be much more accurate than the output of an «external user», due to the limited information the external user is provided with.

This is the reason why in the M&A transactions there is the **DUE DILIGENCE period**, during which professionals appointed by the buyer (sometimes in contrast with the professionals appointed by the seller) get **access to full set of the Target's data**. The goal is to verify information, assess risks and confirm that the deal is a good investment before making a final commitment.

Financial Statements Reclassification/Reformulation

Reformulation of FS: preparing FS formats.

Formats of FS: different ways to arrange the items inside the BS and the IS. Different formats provide different information.

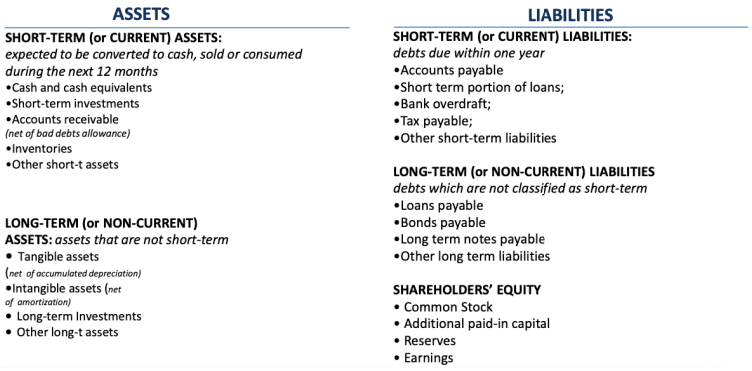
Preparing the financial statements according to different formats helps the user to determine intermediate/partial results (or ratios) which are meaningful to understand the PERFORMANCE and the SOUNDNESS of the business entity.

NOTE: there is NO rule or law regulating how to prepare reclassified FS formats. What is important is CONSISTENCY in the definitions used and a clear understanding of what is behind each of them.

BALANCE SHEET RECLASSIFICATION

There are formats that focus on:

- **Liquidity and solvency**: Items of the BS are divided in short/long term assets and liabilities.
  - **assets** are classified according to their **liquidity**
  - **liabilities** are classified according to their **maturity**



ASSETS

SHORT-TERM (or CURRENT) ASSETS:
expected to be converted to cash, sold or consumed during the next 12 months
•Cash and cash equivalents
•Short-term investments
•Accounts receivable
(net of bad debts allowance)
•Inventories
•Other short-t assets

LONG-TERM (or NON-CURRENT) ASSETS: *assets that are not short-term*
• Tangible assets
(net of accumulated depreciation)
•Intangible assets *(net of amortization)*
• Long-term Investments
• Other long-t assets

LIABILITIES

SHORT-TERM (or CURRENT) LIABILITIES:
debts due within one year
•Accounts payable
•Short term portion of loans;
•Bank overdraft;
•Tax payable;
•Other short-term liabilities

LONG-TERM (or NON-CURRENT) LIABILITIES
debts which are not classified as short-term
•Loans payable
•Bonds payable
•Long term notes payable
•Other long term liabilities

SHAREHOLDERS' EQUITY
• Common Stock
• Additional paid-in capital
• Reserves
• Earnings

- **Business Functions**: This reclassification classifies the BS items according to the company's business (e.g. investment, operations and financing)

All the most important consultancy companies reclassify the BS more or less identically, as follows:

- **NET INVESTED CAPITAL:** total assets, less all the «operating» liabilities. (all the resources the company uses, net of the liabilities related to operations). It is divided into two categories: long-lived assets and NWK.
  1. **Long-lived assets** (tangibles, intangibles, financial): usually they are aggregated; if a single asset is significant for the analysis, then it is presented stand-alone.
  2. **Net Working Capital**: all the current, operating assets, net of the current, operating liabilities, and it is divided into two sub-sections:
     a. **Commercial working capital**: net total of ONLY the following: inventories (+), A/R(+), A/P (-)
     b. **Other operating assets/liabilities**: all the other assets and liabilities with an operating nature: contingent liabilities (eg: provisions for warranties), tax assets (eg. VAT receivable), tax liabilities (eg. Income tax payable)
- **SOURCES OF FINANCING**: how the net assets are financed (i.e. it is based on the structure of financing of the company).
  1. **Equity**: coincides with the amount resulting in the financial statements.
  2. **Net Financial Position**: NFP is calculated as (i) total financial liabilities (both short-term and long-term), minus (ii) cash and cash equivalent (i.e. financial receivables).

3. **Other liabilities**: shareholder loans and other intra-group loans which are liabilities with financial nature, but with a lower profile of risk.

This total does NOT coincide with the amount of "Total Liabilities & Equity of BS" because all the OPERATING Liabilities are subtracted from Assets to calculate "Net Invested Capital".

INCOME STATEMENT RECLASSIFICATION

The standard IS format is:

+ NET SALES
- COGS
GROSS PROFIT
+ Other Operating Revenues
- Selling, General and Administrative Expenses
EBITDA (Earnings Before Interests, Taxes, Depreciation and Amortization)
- Depreciation and Amortization Expense
EBIT (Earnings Before Interest and Taxes
+ Interest & Financial Revenues
- Interest Expense and Financial Charges
EBT (Earnings Before Taxes)
- Income Taxes
NET INCOME

NET SALES: Total Sales Net of Return & Allowances. This is always the 1st item in a multiple step IS.

COGS: this is often reported in a more detailed way. In particular:

- for a **merchandising** company, COGS is:

  Purchases (i.e. cost of merchandise purchased)

  +/- Δ inventory

- for a **manufacturing** company, COGS is:

  Production costs (typically listed in detail)

  +/- Δ inventory

GROSS PROFIT (GROSS MARGIN): gives an idea of how **PROFITABLE** the **core of the business activity is**. The profitability at this level must be able to cover all the other expenses the company has to bear. Problems at this level are very alarming!

Other Operating Revenues: other revenues arising from the operating activity (rentals, license fees)

Selling Expenses: typically include:

- Sales salaries, commissions and bonuses and related costs (including social security and pension costs);
- Advertising and promotion costs;
- Warehousing costs;
- Transportation costs;
- Costs related to fixed assets used in the selling activity (including depreciation and maintenance costs).

General and Administrative Expenses: typically include:

- Administrative staff salaries, bonuses etc. and related costs (including social security and pensions costs)
- Directors' executive salaries and related costs;
- Costs related to fixed assets used for the G&A activity (e.g. depreciation and maintenance of buildings, etc.);
- Research costs;
- Professional fees.

EBITDA: operating income without considering depreciation and amortization expense. This is the **most important item of the whole F/S**.

Depreciation and amortization expense: depreciation and amortization of long-lived assets.

EBIT (OPERATING INCOME): one of the most important pieces of information on which one should focus to analyse FS: it shows if and how profitable is the core activity of the company, apart from the way such activity is financed.

- EBIT tends to be stable in time, IF no change in the strategy of the company takes place.
- If EBIT is negative or too low, a restructuring process is probably needed to save the company.

Importance of COMPARABILITY

To properly analyze the information reported in FS it's necessary to develop appropriate comparisons

Two methods for making financial comparisons

- **COMPARISON ACROSS TIME**: **Time-series analysis** - Information for a single company is compared over time
- **COMPARISON ACROSS COMPANIES**: **Cross-sectional analysis** - Information for multiple companies is compared at a point in time or across time. Typically: key competitors or industry average

2 approaches for financial comparison:

- **HORIZONTAL approach**: Line-by-line comparison of the accounts with those of the previous year. It provides, over a number of years, a trend of changes, decline or growth (i.e. «time series analysis»)
- **VERTICAL approach**: It provides evidence of structural changes in the accounts: increased profitability through more efficient production, or greater dependence on borrowing to finance new investment.
  - **COMPONENT PERCENTAGES**: expression of each item on a financial statement as a percentage of a single base amount.

    Single base amount is:

    - NET SALES: For the income statement
    - TOTAL ASSETS: for the balance sheet

EG:

HORIZONTAL ANALYSIS (EXAMPLE)

OVERVIEW OF GROUP RESULTS

(in millions of Euro)	2006 Amount	%	2007 Amount	%	2008 Amount	%	2009 Amount	%
Sales revenues	1,018.6	100.0%	1,071.8	100.0%	1,017.5	100.0%	781.0	100.0%
EBITDA	128.5	12.6%	134.6	12.6%	104.9	10.3%	47.2	6.0%
Operating result	106.6	10.5%	113.6	10.6%	87.6	8.6%	33.7	4.3%
Ebit	83.5	8.2%	89.9	8.4%	62.4	6.1%	5.1	0.6%
Result before taxes and minority interests	74.9	7.4%	80.6	7.5%	48.2	4.7%	(5.6)	-0.7%
Net result	50.8	5.0%	52.2	4.9%	28.6	2.8%	(7.6)	-1.0%
Self-financing	91.2		94.8		66.3		34.8	
Free cash flow	58.6		55.9		(6.9)		90.0	
Net financial position	(126.3)		(179.4)		(257.2)		(170.2)	
Total shareholders' equity	295.7		326.7		178.3		182.2	
GEARING	0.43		0.28		1.44		0.93	
ROI	19.6%		21.4%		14.6%		1.3%	
ROE	19.3%		17.7%		12.1%		-4.7%	
Number of employees at December 31	6,168		6,208		6,100		5,770	
Dividends per share (Euro)	0.20		0.22	(*)	-		-	(**)
EPS (Euro)	0.457		0.465		0.250		(0.067)	
Average annual price per share	5.4643		6.5352		2.8443		1.2986	

(*) plus € 1.18 as extraordinary dividend per share
(**) as proposed by the Board of Directors to the Shareholders' Meeting

Horizontal (Time series): analyze the trend of a specific item (e.g. Sales) over time (2006 to 2009, in this case)

Financial Accounting- Code 30427

VERTICAL ANALYSIS (EXAMPLE)

OVERVIEW OF GROUP RESULTS

(in millions of Euro)	2006 Amount	%	2007 Amount	%	2008 Amount	%	2009 Amount	%
Sales revenues	1,018.6	100.0%	1,071.8	100.0%	1,017.5	100.0%	781.0	100.0%
EBITDA	128.5	12.6%	134.6	12.6%	104.9	10.3%	47.2	6.0%
Operating result	106.6	10.5%	113.6	10.6%	87.6	8.6%	33.7	4.3%
Ebit	83.5	8.2%	89.9	8.4%	62.4	6.1%	5.1	0.6%
Result before taxes and minority interests	74.9	7.4%	80.6	7.5%	48.2	4.7%	(5.6)	-0.7%
Net result	50.8	5.0%	52.2	4.9%	28.6	2.8%	(7.6)	-1.0%
Self-financing	91.2		94.8		66.3		34.8	
Free cash flow	58.6		55.9		(6.9)		90.0	
Net financial position	(126.3)		(179.4)		(257.2)		(170.2)	
Total shareholders' equity	295.7		326.7		178.3		182.2	
GEARING	0.43		0.28		1.44		0.93	
ROI	19.6%		21.4%		14.6%		1.3%	
ROE	19.3%		17.7%		12.1%		-4.7%	
Number of employees at December 31	6,168		6,208		6,100		5,770	
Dividends per share (Euro)	0.20		0.22	(*)	-		-	(**)
EPS (Euro)	0.457		0.465		0.250		(0.067)	
Average annual price per share	5.4643		6.5352		2.8443		1.2986	

(*) plus € 1.18 as extraordinary dividend per share
(**) as proposed by the Board of Directors to the Shareholders' Meeting

Vertical (Percentages Components): analyze the trend of a specific item (e.g. EBIT) as percentate of a given base amount (Sales, in this case)

Financial Accounting- Code 30427

Ratio Analysis

Ratio analysis is an analytical tool that measures the proportional relationship between 2 FS amounts.

REMEMBER: when you compute ratios:

- **BS amounts** are as of a SPECIFIC **POINT IN TIME**.
- **IS amounts** relate to A **PERIOD OF TIME**.

To adjust for this difference, most analysts use the **AVERAGE balance sheet amount** **when comparing a BS number to an IS number**.

PROFITABILITY RATIOS

These ratios focus mainly on NET INCOME and how it compares to other items reported in FS.

1. **Return on Equity**:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Average Stockholders' Equity}}$$

- Measures returns on shareholder's investment.
- Influenced by the financing decisions and other factors non-profitability related (ex.: treasury shares)

2. **Return on Assets**:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

- Broad measure of asset efficiency, independent from the financing strategy.
- The **higher** the better.
- If **ROA > Cost of debt**, the company takes advantage of the financial leverage

3. **Gross Profit Margin Ratio**:

$$\text{Gross Profit Margin Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales Revenue}}$$

- Indicates pricing power and operating efficiency.
- The **higher**, the better.
- Always compare within same industry.

4. **Net Profit Margin Ratio**:

$$\text{Net Profit Margin Ratio} = \frac{\text{Net Income}}{\text{Net Sales Revenue}}$$

- Measures how much of every sales dollar generated during the period is profit

- The **HIGHER** is, the more **EFFICIENT** is the management of sales and expenses
- Always compare within same industry.

5. **Earnings per Share (EPS)**:

$$\textbf{EPS Ratio} = \frac{\textbf{Net Income}}{\textbf{Weighted Average Number of Common Shares Outstanding}}$$

- Indicates the amount of earnings attributable to a single share of outstanding common stock
- There is a **base EPS** and a **diluted EPS**
- **Not to be compared** across companies because of the different number of shares issued
- The **only ratio required by GAAP**
- EPS could be altered by selling/repurchasing shares of common stock
  - Share repurchases (**buyback**): ↑ EPS
  - **Issuing** new shares: ↓ EPS

6. **Quality of Income Ratio**:

$$\textbf{Quality of Income Ratio} = \frac{\textbf{Cash Flow from Operating Activities}}{\textbf{Net Income}}$$

- It focuses on the **ability to generate cash**
- Shows proportion of net income that was turned into cash.
- **It is expected > 100%**: strong cash conversion.
- When **< 100%**: the company is experiencing problems with changes in **NWC** (ex: A/R ↑)
- Accounting policies might influence net income (lower/higher estimated life for depreciable assets)
  - **Lower Estimated Life** (Faster Depreciation): **Lower** Net Income
  - **Higher Estimated Life** (Slower Depreciation): **Higher** Net Income

The DuPont Model (ROA and ROE breakdown)

The DuPont Model breaks down key profitability metrics to evaluate how effectively a company implements its business strategy by analyzing Return on Assets (ROA) and Return on Equity (ROE).

$$\textbf{ROA} = \textbf{Net Profit Margin} \cdot \textbf{Total Asset Turnover Ratio}$$

$$\frac{\textbf{Net Income}}{\textbf{Average Total Assets}} = \frac{\textbf{Net Income}}{\textbf{Net Sales Revenues}} \cdot \frac{\textbf{Net Sales Revenues}}{\textbf{Average Total Assets}}$$

$$\textbf{ROE} = \textbf{Net Profit Margin} \cdot \textbf{Total Asset Turnover Ratio} \cdot \textbf{Financial Leverage}$$

$$\frac{\textbf{Net Income}}{\textbf{Average Total Stockholders' Equity}} = \frac{\textbf{Net Income}}{\textbf{Net Sales Revenues}} \cdot \frac{\textbf{Net Sales Revenues}}{\textbf{Average Total Assets}} \cdot \frac{\textbf{Average Total Assets}}{\textbf{Average Total Stockholders' Equity}}$$

Financial leverage measures how much a company uses **debt to finance its assets** in order to amplify returns to shareholders. By borrowing at a fixed cost (interest), the firm aims to earn a return on its assets (ROA) that exceeds the debt cost.

- When successful, leverage boosts return on equity (ROE);
- When unsuccessful, it magnifies losses and increases default risk.

$$\textbf{Financial Leverage} = \frac{\textbf{Total Assets}}{\textbf{Equity}} = 1 + \frac{\textbf{Debt}}{\textbf{Equity}}$$

- **Equity Multiplier**: $\frac{\text{Total Assets}}{\text{Equity}}$ = how much of the company's assets are funded by shareholders' equity.
- $\frac{\textbf{Debt}}{\textbf{Equity}}$ **Ratio** = indicates the proportion of the company's financing that comes from debt versus equity.

An ↑ **in D/E** has 2 effects:

- ↑ **ROE** since the company is using more debt (and therefore less equity) to finance its assets
- ↑ **financial risk** because debt comes with fixed obligations (interest payments) that must be met regardless of business performance. If ROE ↑, risk ↑ because firm has more debt to cover and for both reasons, the value for shareholders ↑.

EFFICIENCY (Asset Turnover) RATIOS

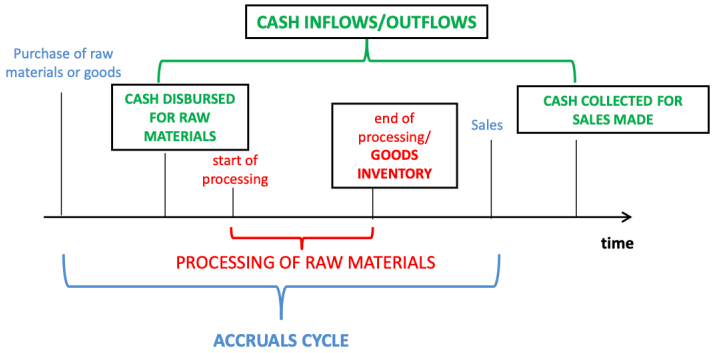
They are crucial to measure the ability of a company:

- To **generate revenues in relation to the total assets**;
- To **manage efficiently its PAYABLES, INVENTORIES and RECEIVABLES**.

Vocabulary:

- **DSO**: Days Sales Outstanding
- **DPO**: Days Payables Outstanding
- **DOI**: Days of Inventory

Excellence in managing the DSO/DPO/DOI can generate high benefits to shareholder: this is called the **working capital management**, because inventory, accounts receivable and payable are the main elements of the working capital.



7. **Total Asset Turnover Ratio**:

$$\textbf{Total Asset Turnover Ratio} = \frac{\textbf{Net Sales Revenue}}{\textbf{Average Total Assets}}$$

- Captures how well the company uses its assets to generate revenues
- The **HIGHER** is, the more **EFFICIENT** is total assets usage

8. **Fixed Asset Turnover Ratio**:

$$\textbf{Fixed Asset Turnover Ratio} = \frac{\textbf{Net Sales Revenue}}{\textbf{Average Net Fixed Assets}}$$

- Captures how well the company uses its "fixed assets" (property, plant and equipment) to generate revenues
- The **HIGHER** is, the more **EFFICIENT** is net fixed assets usage

9. **Receivable Turnover Ratio**:

$$\textbf{Receivable Turnover Ratio} = \frac{\textbf{Net Credit Sales}}{\textbf{Average Net Receivables}}$$

- When net credit sales not specified, **net sales** is used as an approximation
- Shows how many times in a year the company collects its accounts receivable
- The **HIGHER** is, the **FASTER** is the collection of receivables
- A **higher** ratio **benefits** the company because it can invest the money collected to earn interest income or reduce borrowings to reduce interest expenses

9B. **DSO - Average Days to Collect Receivables**

$$\textbf{DSO} = \frac{365}{\textbf{Receivables Turnover}}$$

- Indicates the average time (numbers of days) it takes receivables to convert in cash

- The HIGHER is, the GREATER the time needed to collect cash (so it is **good** when it is **LOW**)

10. **Inventory Turnover Ratio**:

$$\textbf{Inventory Turnover Ratio} = \frac{\textbf{COGS}}{\textbf{Average Inventory}}$$

- It's a measure of operating efficiency
- Reflects how many times average inventory was produced and sold during the period
- A **HIGHER** ratio indicates that inventory moves more quickly through the production process to the ultimate customer, reducing storage and obsolescence costs

10Bis. **DOI - Average Days to Sell Inventory**:

$$\textbf{DOI} = \frac{365}{\textbf{Inventory Turnover}}$$

- Indicates the average time (days) it takes the company to sell its inventory
- The higher is, the less efficient is the production process (so it is **good** when it is **LOW**)

10Ter. **Payables Turnover Ratio**:

$$\textbf{Payables Turnover Ratio} = \frac{\textbf{COGS}}{\textbf{Average Accounts Payable}}$$

- Shows how many times in a year the company pays its suppliers.
- A **HIGHER** ratio normally suggests that the company is paying its suppliers in a timely manner

10Quater. **DPO - Average Number of Days Payables Are Outstanding**:

$$\textbf{DPO} = \frac{365}{\textbf{Accounts Payable Turnover}}$$

- Indicates the average time it takes payables to be paid in cash
- The **HIGHER** is, the greater the time (days) the company takes to pay back its accounts payable

Ceteris paribus, **the optimal management of DPO, DSO and DOI is a leverage to increase the value of a company.**

WHY?

- **DSO**: the sooner the company collects cash from its customers, the higher cash is available
- **DOI**: the less time products stay in inventory, the less time it takes then to get cash from sales
- **DPO**:
  - the longer it may take to pay the suppliers, the better it is

- If a company has low DPO, it likely needs external short-term financing (banks) which is interest-bearing (< profit)
- If a company has good DSO and DOI, it can opt to pay sooner the best suppliers (good suppliers = good operations) and/or it can ask for discounts (= more profit!)

The above (specially for DSO and DOI) is valid for any company, in any business sector.

LIQUIDITY RATIOS

They focus only on current assets (or specific assets among the current assets) and current liabilities.

These ratios are usually analyzed across years and/or in comparison with other companies operating in the same sectors.

11. **Current Ratio**:

$$\textbf{Current Ratio} = \frac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$$

- It measures to what extent a company's total current assets cover its total current liabilities on a specific date.
- **<1** and **decreasing:** gives **concerns**
- Optimal level depends on the business environment in which a company operates
- Broadly speaking It should be **between 1 and 2** (time for converting stocks and receivables in cash should be considered as payments of taxes, dividends, so on)
- What matters the most is that it should be **stable** during the years

12. **Quick Ratio (acid test)**:

$$\textbf{Quick ratio} = \frac{\textbf{Cash \& Cash Equivalents + Net Accounts Receivables + Marketable Securities}}{\textbf{Current Liabilities}}$$

- More strict test of short-term liquidity
- It should **not fall below 1**
- Important to know the extent to which unused loans and overdrafts are available

13. **Cash Ratio**:

$$\textbf{Cash Ratio} = \frac{\textbf{Cash \& Cash Equivalents}}{\textbf{Current Liabilities}}$$

- It's the most stringent test of liquidity; it relates **cash on hand** to the total current liabilities recorded in the statements
- Measures how much a company can pay off its current liabilities with only cash and cash equivalents
- A **cash ratio > 1 is unusual**

Stability across years and similarity across companies are appreciated by analysts.

On the opposite, a changing ratio (decreasing or increasing), or a ratio different from the competitors, may be a warning. Examples:

1. Company ABC's current ratio is higher than the competitors', but quick ratio is same. This means that the **inventory management is not efficient** $\Longrightarrow$ work on **DOI**

2. Company ABC's cash ratio are $\downarrow$. Is the company improving its DPO or is it less able to meet its short term obligations because of lower cash generation?

3. ABC's quick ratio is $\uparrow$. Is there any uncollectible receivable not recorded? The ratio might be overstated. This means the company appears more liquid than it actually is because some of its recorded receivables may never be collected.

SOLVENCY RATIOS

They are very important for banks and for external analysts because they represent in a nutshell the balance between liabilities and SE and they are a good proxy of the possibility for the company to ask for further debt, specially the D/E ratio.

There is **NOT an optimal structure of debt and equity** for all companies and/or all sectors of activity, but broadly speaking, the **higher is the leverage, the riskier the company**.

Some analysts focus only on the interest-bearing debt (excluding wages payable, accounts payable, contingent liabilities…) to calculate solvency ratios.

Also, these analysts are very interested to the amount of interest-bearing debt because it is used to calculate **NFP**:

$$\textbf{NFP} = \textbf{Total Interest Bearing Debt - Cash and Cash Equivalents}$$

14. **Times Interest Earned Ratio**:

$$\textbf{Times Interest Earned Ratio} = \frac{\textbf{Net Income + Interest Expense + Income Tax Expense}}{\textbf{Interest Expense}}$$

- Measures the **margin of protection for creditors** by indicating **how many times a company's EBIT can cover its interest payments**.

15. **Cash Coverage Ratio**:

$$\textbf{Cash Coverage Ratio} = \frac{\textbf{Cash Flows from Operating Activities}}{\textbf{Interest Paid}}$$

- States **how many times cash flows from operations cover interest obligations**, reflecting liquidity available to meet debt service from core operations.

16. **Debt-to-Equity Ratio (D/E)**:

$$\text{D/E} = \frac{\text{Total Liabilities}}{\text{Total Stockholders' Equity}}$$

- Expresses **how much of the company's financing comes from debt** versus shareholders' equity.
- **High D/E**: indicates **reliance on debt financing**, ↑ risk of default if earnings ↓.
- Influenced by dividend policy and capital structure decisions.
- Generally, a **D/E between 2 and 4** is considered reasonable.

MARKET RATIOS

17. **Price-Earnings Ratio (PE)**:

$$\text{PE} = \frac{\text{Market Price per Share}}{\text{EPS}}$$

- Reflects the market's expectations for future earnings rather than past performance.
- **High PE**: investors expect **higher growth** and are willing to pay a **PREMIUM**
- **Low PE**: undervalued stock or **lower growth** expectations.

18. **Dividend Yield Ratio**:

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend per Share}}{\text{Market Price per Share}}$$

- Shows the **cash return to investors independent of capital gains**, indicating how much a company pays out in dividends relative to its share price.

FSA in the real-life world

FORECAST, BUDGET AND BUSINESS PLAN

Mastering Accounting is necessary to prepare three fundamental documents:

- **Forecast**: A short-term **prediction** of the **IS** and **CFS** for the **ongoing year** (e.g., in March 2024, forecasts are issued monthly or quarterly through December). Often excludes the BS, focusing on:
  - Monthly net income
  - Available cash
- **Budget**: A comprehensive **projection** of **IS, BS, and CFS** for the **next accounting period**, typically approved by the Board in the second half of the preceding year (e.g., October 2024 for the 2025 budget). Its purpose is to **set financial targets**.
- **Business Plan**: A **medium- to long-term (3–5 years) projection** of **IS, BS, and CFS**, formally approved by the BoD. Key uses include:
  - **Impairment testing**: Estimating future cash flows for asset valuation

- **Long-term investment decisions**: Assessing profitability of projects (e.g., new production plants)
- **Valuation**: Providing cash flow forecasts for company market value estimation

All three documents are built on a detailed analysis of historical IS, BS, and CFS data, often using component-percentage calculations.

RATING AGENCIES AND ANALYST REPORTS

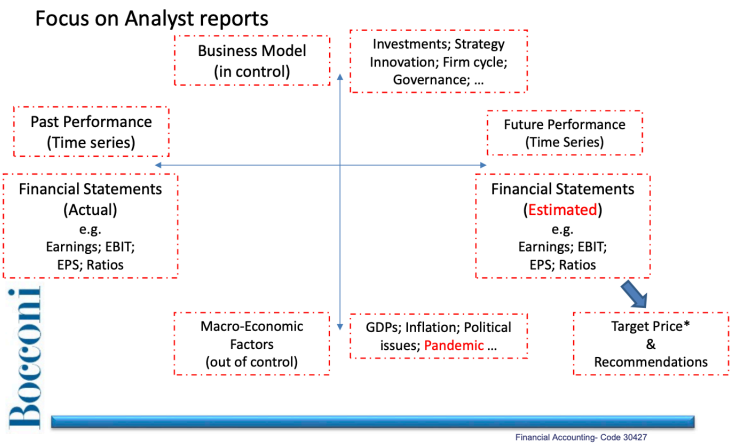
Rating agencies and financial analysts specialize in **firm valuation**, **producing publicly visible**, **expert recommendations** and **target prices**.

Process:

1. **Information Filtering**: Collect and process company disclosures.
2. **Forecast Conversion**: Translate forecasts into firm value estimates.
3. **Deliverables**: Publish Analyst Reports with target prices and buy/hold/sell recommendations, which influence market behavior.
   - **Target Price**: Expected future trading price of a stock.
   - **Recommendations**:
     - **Buy**: Anticipated price increase, may attract new investors.
     - **Hold**: Fairly valued, minimal expected movement.
     - **Sell**: Potential decline, prompting investor divestment.

Report Types:

- **Initial Coverage**: The first report on a company.
- **Regular Updates**: Periodic analyses.
- **Event-Driven Updates**: Issued when material events arise.



Analytical Framework:

HORIZONTAL AXIS (Past-Future): Past Performance & Actual FS (historical data): used to identify trends & inform future performance (forecast)

VERTICAL AXIS:

- **Company-Controlled factors**: business model, strategy, investments, governance, innovation.
- **External, uncontrollable factors**: macroeconomic conditions, GDP, inflation, political risks, crises.

Flow of the analysis:

- **Start from the PAST** (bottom left): analysts first study a company's actual past performance using FS
- **Move to FUTURE** (bottom right): analysts estimate future earnings & FS using historical data, strategic plans, external conditions
- **Consider STRATEGIC & MACROECONOMIC Factors** (top right & bottom center):
  - Business model & strategy (company controlled) refine future projections
  - External economic conditions add risk factors to the analysis
- **Derive TARGET PRICE & RECOMMENDATIONS** (bottom right, blue arrow)

THE VALUATION MULTIPLES

The valuation multiples are one of the 2 most common ways to calculate the market value of a company (= to evaluate a company) starting from the data of the FS.

1. Select a **Target Accounting Item** (EG Net Income) from the target's statements.
2. Identify **COMPARABLE companies** operating in the same industry, with public data available: calculate the **market multiple**, a ratio in which numerator is the market value and the denominator is the **accounting item selected** for the non-listed company

$$\text{(Eg: P/E ratio) PE} = \frac{\text{Market Value of Comparable Company}}{\text{Net Income of Comparable Company}}$$

3. **Apply the Multiple**: Multiply the target's accounting item by the benchmark market multiple to derive its implied market value.

$$\text{Estimated Market Value} = \text{Net Income of Target} \cdot \text{PE Ratio of Comparables}$$

EG: ABC operates in consumer healthcare. Its average earnings (historic and forecast) equal € 70.000. assuming a peer PE multiple of 15.27, ABC's implied share value is:

€ 70.000 x 15,27 = € 1.068.900

This demonstrates how market value can be inferred directly from FS data.

VALUATION OF COMPANIES IN AN M&A TRANSACTION

When estimating a company's market value during an M&A deal, you can approach from the Asset Side (Enterprise Value) or the Equity Side (Equity Value).

- **ASSET side**: **ENTERPRISE VALUE (EV)** = market value of the ASSETS of a company
  i.e. the total cost to acquire all of a company's assets
- **EQUITY side**: **EQUITY VALUE**, the market value of the shares of a company.

The enterprise value or the equity value can be calculated using 2 methods (among the others but with the highest frequency):

- **DCF - Discounted Cash Flows**:
  1. Prepare a Business Plan
  2. Calculate Free Cash Flows
  3. Discount projected cash flows and Terminal Value to Present Value
- **Multiples**: apply relevant valuation multiples

Both methods rely heavily on 2 FS metrics: **EBITDA** and **NET FINANCIAL POSITION (NFP)**

Understanding EBIT vs EBITDA

EBIT and EBITDA measure **profitability independent of capital structure and taxes**, enabling **comparability** **across firms**.

- **Difference**: **EBITDA excludes D&A**.
  - **Capital-intensive industries** (manufacturing, energy): high D&A → **larger EBIT vs. EBITDA gap**.
  - **Service industries** (software, consulting): low D&A → **smaller gap**.
- **Management Discretion**: Depreciation methods and asset lives impact EBIT but not EBITDA. Firms with aggressive capital spending strategies will have higher depreciation, ↑ difference between EBIT & EBITDA.
- **Adjusted EBITDA**: Non-GAAP metric that **excludes non-recurring items** (e.g., restructuring costs, stock compensation) to **reflect core performance**, but adds subjectivity and **reduces comparability**.

Why EBITDA Matters in M&A

- **Proxy for operating cash flow potential**
- **Excludes financing (interest), taxes, and non-cash expenses**
- **Normalized EBITDA** **removes unusual items for realistic valuation inputs:** it removes non-recurring, discretionary, unusual items, that could skew the results. This ensure that the CF projections used for valuation & decision making are based on realistic financial performance, rather than temporary distortions.

Relative Valuation Methods

EBIT and EBITDA are commonly used in RELATIVE VALUATION, where a company's value is assessed by comparing it to similar companies.

Compare the target to peers via valuation multiples:

1. **Comparable Companies Analysis** (Trading Comps): compare the company to publicly traded peers using valuation multiples.
2. **Precedent Transactions Analysis** (Transaction Comps): examines past M&A deals to determine how similar firms were valued.

Key principle: **Align the numerator** (value measure) **and denominator** (value driver) **by stakeholder representation**.

- **Enterprise Value** pairs with **pre-interest metrics** (EBIT, EBITDA)
- **Equity Value** pairs with **post-interest metrics** (Net Income, EPS)

ASSET SIDE MULTIPLES:

$$\frac{\textbf{EV}}{\textbf{Sales}}$$

- Useful in high sales, low margin industries. **EG**: retail and pharmacies, typically between 1.3x and 1.5x

$$\frac{\textbf{EV}}{\textbf{EBITDA}}$$

- Measures how many times a company's EBITDA is worth in its total value.
- Ideal for comparing companies with different capital structures and depreciation policies.
- **EG**: healthcare sector between 10x and 15x.

$$\frac{\textbf{EV}}{\textbf{EBIT}}$$

- Reflects performance including D&A, making it particularly relevant for capital intensive industries with significant D&A expenses.

To derive **Equity Value:**

$$\text{Equity Value} = \text{Enterprise Value} - \text{Net Financial Position}$$

$$\text{NFP} = \text{Total Financial Debt} - \text{Cash \& Cash Equivalents}$$

Measured at the END of each reporting period; all financial assets and liabilities are valued at **MARKET VALUE**:

- If **Debt>Cash**, company has **NET DEBT**: **SUBTRACT** NFP **from EV to get Equity Value**, because debt must be repaid to creditors.

$$\text{Equity Value} = \text{Enterprise Value} - (\text{Net Debt})$$

- If **Cash>Debt**, company has **NET CASH**: **ADD** NFP **to EV to get Equity Value**, because that excess cash ↑ value for shareholders.

$$\text{Equity Value} = \text{Enterprise Value} + (\text{Net Cash})$$

In an M&A transaction, **NFP** must be **NORMALIZED** to exclude one-off or non-recurring items, ensuring the valuation reflects the company's true financial position at deal date.

EQUITY SIDE

$$\text{PE} = \frac{\text{Market Price per Share}}{\text{EPS}}$$

- **High PE: higher growth** expectations so PREMIUM
- **Low PE: undervalued** stock or **lower growth** expectations.

$$\frac{\text{Market Price per Share}}{\text{BVPS (Book Value per Share)}} = \frac{\text{P}}{\text{BV}}$$

- **P/BV>1:** company valued **ABOVE** its **accounting Book Value** (common for **growth** firms)
- **P/BV<1:** possible **UNDERVALUATION** or **asset quality concerns**.

Sustainability & Accounting

Sustainability standards have evolved to regulate and promote responsible environmental, social, and governance (ESG) practices among businesses and governments. Their goal is to ensure long-term economic growth while minimizing environmental harm and improving social well-being.

CSRD – Corporate Sustainability Reporting Directive

The CSRD strengthens sustainability reporting requirements for companies operating in the EU by increasing the quantity, quality, and comparability of disclosed information. It aligns sustainability reporting with financial reporting to support sustainable investment decisions.

KEY REQUIREMENTS

1. European Sustainability Reporting Standards (ESRS): companies must prepare **sustainability statements** following ESRS, issued by EFRAG.
2. **Mandatory Audit**: All reported sustainability information must be **externally assured**.
3. **Digitization**: Reports must be published in XHTML format and uploaded to the European Single Access Point (ESAP).
4. **Integration in Financial Reports**: Sustainability information must be included in the management report and published alongside annual financial statements.

Related Frameworks:

- **SFDR – Sustainable Finance Disclosure Regulation**: Requires financial market participants to disclose sustainability-related information to ensure transparency in financial markets.
- **EU Taxonomy**: CSRD mandates companies to report performance based on the EU Taxonomy, which classifies environmentally sustainable economic activities.

CSRD Implementation Scheduling

- 2024: Applies to large public interest entities with >500 employees. (Reports published in 2025)
- 2025: Expands to listed & non-listed firms with >250 employees, €25M+ balance sheet, or €50M+ net revenue. (Reports published in 2026)
- 2026: Covers SMEs with >50 employees, €0.45M+ balance sheet, or €0.9M+ net revenue. (Reports published in 2027 or 2029)

*__PUBLIC INTEREST companies__ are entities with a significant impact on the public due to their size, nature, or role in the economy.

CSRD Reporting Requirements: Among the 12 ESRS-aligned disclosures, key items include:

1. **Business Model & Strategy**: Brief description of the company's model and strategic approach.
2. **Sustainability Objectives**: Description of targets set by the company.
3. **Incentive Plans**: Information on remuneration linked to sustainability KPIs.
4. **Value Chain**: Data related to upstream and downstream activities.
5. **EU Taxonomy Disclosure**: Alignment of activities with taxonomy criteria.
6. **Digital Tag**: Machine-readable tagging of ESG information.

Double Materiality Concept: Sustainability reporting must consider both:

- **IMPACT Materiality**: How the company affects the environment and society (e.g., emissions, resource use, social impacts).
- **FINANCIAL Materiality**: How environmental and social factors affect the company's financial performance (e.g., climate risks on operations).

A **Double Materiality Assessment** ensures firms focus on topics that meet either or both perspectives, guiding selection of relevant ESRS topics.

Characteristics of Disclosures: To be audit-proof and valuable, all sustainability data must be relevant, comparable, verifiable, understandable, and accurate.

Mandatory Information:

- **Basis for Preparation**: Methodology and standards used.
- **Governance**: Composition, roles, responsibilities, and diversity of the Board and management.
- **Strategy**: Key strategic elements influencing sustainability issues.

- **Management of Impacts, Risks & Opportunities (IRO)**: Processes for identifying IRO and rationale for excluding non-material information.

From Single to Double Materiality:

- **SINGLE Materiality**: Focuses solely on how ESG issues impact an organization's financial position — no longer sufficient under CSRD.
- **DOUBLE Materiality**: Recognizes both the organization's impacts on the environment and the environment's impacts on the organization.

Amplifon - ESG Highlights

Governance & ESG Strategy: Amplifon has embedded ESG into corporate governance. The Control, Risk and Sustainability Committee oversees sustainability, and ESG KPIs are integrated into executive compensation.

ENVIRONMENTAL Focus

- Net-zero emissions by 2050 with a 50% reduction in Scope 1 & 2 emissions by 2030 (vs. 2021).
- Energy efficiency measures such as LED lighting in stores and 100% renewable electricity in key countries (Italy, France, Spain).

SOCIAL Impact

- 60%+ female workforce, high employee engagement, extensive training hours, and a strong commitment to health and safety.
- Personalized hearing care at over 9,300 points of sale, promoting inclusive communication and hearing education.

COMMUNITY & INCLUSION: The Amplifon Foundation focuses on hearing well-being, social inclusion, and support for elderly people and community initiatives.

PERFORMANCE and Ratings

- Inclusion in the Bloomberg Gender Equality Index.
- Improved MSCI ESG Rating.
- Reporting aligned with GRI (impact-focused) and SASB (investor-focused) standards, ensuring transparency, structure, and comparability.

Consolidation

Preface on Business Combinations

With reference to business we are aware that firms grow (or they attempt-wish) to grow/expand over time. They might expand:

- **horizontally**: getting in businesses
- **vertically**: integrating parts of their production processes

They can:

- grow **internally**
- grow **externally** (which means that they buy other firms…. We usually have what is called broadly speaking "Business Combinations"

Business Combination happens when a company achieves **control of another company** through shareholders rights (i.e. buys the shares of another firm). This process is commonly known also as: Merger and Acquisitions

- **MERGER:** one company (**Acquirer**) buys another company (**Target**) (normally by acquiring its shares), and the **Target operations are incorporated into the acquirer**. The Target does NOT exist as individual entity anymore.
- **ACQUISITION**: one company (**Acquirer**) buys another company (**Target**) (normally by acquiring its shares), but the **Target continues to exist as a separate entity** and to **keep its own assets and liabilities**.

In terms of Accounting process:

Anytime one firm "acquires " another one, **accounting for Merger and Acquisition** is **IDENTICAL**. The only difference will be that:

- **MERGER**: the accounting process will take place **once**
- **ACQUISITION**: the accounting process will happen at the **end of each accounting period** as the Target continues to exist.

ACQUISITION

In case a company (PARENT company) purchases more than 50% of the shares of a company "Investee" (SUBSIDIARY company), or in any case if it gains control over the investee, PARENT company shall prepare 2 sets of Financial Statements:

- **SEPARATE FS**: for a parent company, they are those statements in which **investments** are **measured at cost/fair value/equity method**. The real FS, as it represents the situation of a **company at a certain point in time**: the normal official document of the company.

- **CONSOLIDATED FS**: a fake set of FS, they represent a situation that **does not exist in real life**. For a parent company, they are the FS of a group in which the assets, liabilities, equity, revenues and expenses and cash flows of the parent and all its subsidiaries are presented as those of a single economic activity.

The CONSOLIDATION process is the following:

1. All FS are made **uniform**
2. All FS are **added up**
3. Some **items** are then **adjusted** to reflect the situation as if the group companies were a single legal entity (Avoid double counting)

Scenario	Separate FS	Consolidated FS
Acquisition (control gained)	Yes	Yes
Merger (subsidiary fully absorbed)	Maybe	Not required
Merger treated as acquisition (IFRS 3)	Yes	Yes (until merged fully)

EG: At beginning, Alpha (PARENT) has 100 cash and 100 equity.

ALPHA: PARENT journal entries

DR	CR	DR (Amount)	CR (Amount)
Investment (+A)*		70	
	Cash (-A)		70
A/R (+A)		5	
	Service Revenues (+SE)		5

*Investment in the PARENT is created when the Common Stock of the Subsidiary is purchased.

OMEGA: SUBSIDIARY journal entries

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		70	
	Common Stock (+E)		70
Service Expenses (-SE)		5	
	A/P (+L)		5

1. **SEPARATE FS**:
   - Alpha realized a profit 5, holds 30 cash, investments 70, has A/R worth 5
   - Omega realized a loss of 5, holds cash 70, common stock 70, A/P 5.

2. **AGGREGATE FS**: Sum of all items of the 2 separate legal entities
3. **ADJUSTMENTS**:
   - **Eliminate intra group REC/PAY**: do I have Payable and Receivable TOWARDS MYSELF at the same time? No, clearly not!

DR	CR	DR (Amount)	CR (Amount)
A/P (-L)		5	
	A/R (-A)		5

   - **Eliminate intra group REV/EXP**:

DR	CR	DR (Amount)	CR (Amount)
Service Revenues (-SE)		5	
	Service Expenses (+SE)		5

   - **Eliminate intra group Investment & Common Stock**:

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		70	
	Investment (-A)		70

Income St.	*Alpha*	*Omega*	*Aggregate*	*Adj 1*	*Adj 2*	*Adj 3*	*Consolidated* → aggregate + adjustments
Revenues	5	0	*5*		**-5**		*0*
Expenses	0	5	*5*		**-5**		*0*
Net profit	*5*	*-5*	*0*		***0***		*0*
Assets							
Cash	30	70	*100*				*100*
Investment	70	0	*70*			**-70**	*0*
Accounts Receivable	5	0	*5*	**-5**			*0*
TOTAL ASSETS	*105*	*70*	*175*	*-5*		*-70*	*100*
Stock Equity							
Common Stock	100	70	*170*			**-70**	*100*
Net PROFIT	5	-5	*0*				*0*
Liabilities							
Accounts Payable	0	5	*5*	**-5**			*0*
TOTAL LIABIL & EQUITY	*105*	*70*	*175*	*-5*		*-70*	*100*

*Concept of CONTROL: **power to govern the operating & financial policies of an entity to obtain benefits from its activities**. IFRS 10 assume that control exists when the investor:

- Possesses **power over the investee**
- Has **exposure to variable returns** from its involvement with the investee
- Has the **ability to use its power overt the investee to affect its returns**

VOCABULARY:

- **Parent**: an entity that has one or more subsidiaries
- **Subsidiaries**: an entity, including an incorporated entity such as a partnership, that is controlled by another entity (the parent).
- **Group**: a parent and all its subsidiaries
- **Non controlling (minority) interest**: the equity in a subsidiary NOT attribuable, directly or indirectly, to a parent.
- **SEPARATE FS** (also STAND ALONE): those statements prepared by companies as single legal entities
- **CONSOLIDATED FS**: representing the group as a unique economic entity.

Consolidation Methods

When: Occurs when an acquirer combines with or obtains control over an acquiree.

What: All identifiable assets and liabilities of the acquiree are recognized at their **fair value** on the acquisition date, including unrecorded items.

How: The acquirer's consolidated financial statements include **100%** of the acquiree's assets and liabilities at fair value, irrespective of the parent's ownership percentage. Adjustments for deferred taxes on fair value differences are recorded.

The consolidation difference is calculated as:

Purchase Price – Fair Value of Net Identifiable Assets

- **Goodwill** arises if **positive** (purchase price exceeds net asset fair value). Recorded as an asset and tested annually for impairment.
- **Bargain Purchase** (Badwill) arises if **negative** (purchase price below net asset fair value). Recognized immediately as a gain in the income statement.

Non-Controlling Interests (NCI): Recognized at fair value and depend on the chosen consolidation approach.

Methods under IFRS 3 "Business Combinations":

1. **Acquisition Method (Partial Goodwill)**:
   - Goodwill is **recognized only for the parent's share** of net identifiable assets.
   - **NCI** is measured at the **proportionate share** of the acquiree's net identifiable assets.
2. **Full Goodwill Approach**:
   - Goodwill is recognized for the **entire acquiree** (100%), including the portion attributable to NCI.
   - NCI is measured at **fair value**, encompassing a share of goodwill.

Fair Value: The price an asset would fetch, or a liability transfer, between knowledgeable, willing parties in an arm's-length transaction.

IMPORTANT - **Tax Treatment**: **No deferred tax is recorded on goodwill under either method**.

Consolidation Process

1. **COLLECT FS** (Pre Consolidation): Identify all group entities and gather each subsidiary's individual FS.
2. **Make FS UNIFORM** (Pre Consolidation Adjustments):
   - **FORMAT Alignment**: Ensure statement structures match across all entities.
   - **Accounting period DATES**: FS must refer to the same closing date. A difference up to **three months** is acceptable if the period length is identical and material events between dates are adjusted.
   - **Accounting POLICIES**: Apply consistent policies (e.g., inventory valuation); adjust any divergences to a common basis.
   - **Reporting CURRENCY**: Translate all FS into the group's presentation currency:
     - **IS**: Use the **average exchange rate** for the period.
     - **BS**: Use the **closing rate** at **period end** (except equity items).

     The resulting **translation difference** is recorded in Equity as the **Translation Reserve** (part of OCI under IFRS):
     - Can be **positive** or **negative**.
     - **Does not affect current-year profit**.
3. **Combine like-items: AGGREGATE FS**: Sum like-items across uniform FS.
   Note: Aggregated FS are not consolidated FS: elimination entries and adjustments follow next.
4. **Consolidation ADJUSTMENTS → Journal Entries**:

   PREMISE: Aggregate FS merely sum each entity's accounts. To prepare consolidated FS, certain items must be offset or adjusted via journal entries to eliminate intercompany and apply purchase accounting.

   A. **elimination of the INVESTMENT**: the 1st, main, compulsory Consolidation Adjustment is the **offsetting**, at the **date of acquisition**, of
      - the **carrying amount of the Parent's INVESTMENT** (CR: financial asset shall be eliminated)
      - **subsidiary's COMMON STOCK & Reserves** (DR: Stockholders' Equity of subsidiary at date of acquisition shall be eliminated)

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		XXX	
	Investment (-A)		XXX

BUT actually, in 99% of the cases, the Price paid to purchase the shares is HIGHER than the Book Value of Stockholders' Equity, and this is due to the following components:

1. **BOOK VALUE of SE**
2. **PLUSVALUES on specific assets, NET of tax effect***

   EG: Luca Scarani owns 100% of Omega shares, price paid is 1,095

   BS of Omega:

   ASSETS = Building 500, Cash 500

   BUT Market Value of Building = 600 → it's a **PLUSVALUE** !!

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		600	
	Building (-A)		500
	Gain On Sale (+SE)		100
Income Tax Expense (-SE)		30	
	ITE Payable (+L)		30

   The 100 € PlusValue of building is a **gain**, but **only NET OF TAX EFFCTS**: I.T.E. (Income Tax Expense) = 30

   SO, in the IS: PROFIT = 100 (plus value) – 30 (ITE) = **70**

   EQUITY = 1000 → everything is financed with Equity

3. **GOODWILL = Price-(Book Value+Plusvalues)**

PPA (Purchase Price Allocation) is the process of determining the fair values of all assets and liabilities of the acquiree, computing goodwill, and serving as the basis for NCI calculation.

⟹ PRICE = Book Value of SE + Plusvalues + Goodwill

NOTE: when acquiring LESS than 100% of the shares, measure **NON-CONTROLLING INTEREST** as the value of the shares held by the Minorities

- **PROPORTIONAL method**: if the parent owns 51% of the shares of a company, NCI represents the remaining 49% of the subsidiary's identifiable assets and liabilities.
- **FULL CONSOLIDATION method**: if the parent owns 51% of the shares of a company, the **Consolidated Statement** shows 100% of assets & 100% of liabilities of subsidiary company, while the **SE section** shows49% NCI equity attributable to minorities.

The PPA & calculation of GOODWILL is made using the so-called ***ACQUISITION method***, according to which:

1. All identifiable **ASSETS & LIABILITIES** of the **subsidiary** are measured at **Fair Value**, including those previously unrecognized.
2. ASSETS & LIABILITIES are recognized at **100%** of Fair Value in the Consolidate FS, regardless of the parent ownership stake.
3. Any PLUSvalues or MINUSvalues generates a **deferred tax effect** (NO immediate income tax on fair value adjustments; current income tax arises from separate FS)
4. **NCI** (= Value of Stockholders' Equity attributable to the Minorities) can be calculated using 2 methods:
   - **PROPORTIONATE Share of FV of Net Assets**
   - **FAIR VALUE** (the so-called "**FULL GOODWILL Method**")
5. **Goodwill** is calculated as a DIFFERENCE, using the following formula:

   Goodwill=PRICE-(BV Equity 100% + PlusValues 100% - Tax Effect 100% - NCI Share)

EG 1:

Alfa purchases 100% shares of Omega. Price paid is 1.000. Book value of Omega's equity is 1.000. Omega does not have any plusvalue.

- NCI $= 0$
- PRICE $= 1000$

Since we purchased 100% of the shares of subsidiary (NCI = 0), we don't need to assign any amount to minorities:

We only focus on **PPA**: PRICE = Book Value + Plusvalues + GOODWILL

- PRICE $= 1000$
- Book Value $= 1000$
- PlusValues $= 0$
- so, Goodwill $= 0$

PRICE=1000
Goodwill=0
Plusvalues=0
Book value=1000

EG 2:

Alfa purchases 100% shares of Omega. Price paid is 1.090. Book value of Omega's equity is 1.000.

The fair value of an equipment owned by Omega is 600, while its book value is 500. Tax rate is 10%.

- NCI $= 0$
- PRICE $= 1090$

Since we purchased 100% of the shares of subsidiary (NCI=0), we don't need to assign any amount to minorities: we only focus on PPA: PRICE = Book Value + PlusValues + GOODWILL

PRICE=1090
Goodwill=0
Plusvalues=90
Book value=1000

- PRICE $= 1090$
- Book Value $= 1000$
- PlusValues $= 1090 - 1000 = 90$

Fair Value of Equipment = 600 | Book Value = 500

→ PLUSVALUE = 100, but NET OF TAX EFFECT !!

GROSS impact of PlusValue = 100

REAL impact of PlusValue = 100 – (100 x 10%) = **90**

- So, **Goodwill** $= 0$ → since 1,000 + 90 = 1,090 (i.e. PRICE)

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		1000	
	Investment in Omega (-A)		1090
Equipment (+A)		100	
	Deferred Tax Liability (+L)		10

- We debit Common stock to eliminate Omega's equity: remember consolidation eliminates subsidiary equity.
- We credit Investment in Omega tto eliminate the investment from Alfa's books as part of consolidation.
- We debit Equipment to reflect Fair Value/Market Value step-up: 600 – 500 = 100.
- The DTL is for the tax impact of Fair Value revaluation: 10% of 100 = 10.

EG 3:

Alfa purchases 100% shares of Omega. Price paid is 1.200. Book value of Omega's equity is 1.000.

The fair value of an equipment owned by Omega is 600, while its book value is 500. Tax rate is 10%.

- NCI $= 0$ → since we are purchasing 100% shares of Omega : no need to assign any amount to minorities

PRICE=1200
Goodwill=110
Plusvalues=90
Book value=1000

- PRICE $= 1200$
  - Book Value $= 1000$
  - PlusValues $= 90$ (i.e. 100 – 10 = 90)

    → since the GROSS PlusValue = 600 FV of Equip. – 500 BV of Equip = 100

- Goodwill $= 110$

Goodwill=PRICE-(BV Equity 100% + Plusvalues 100% - Tax Effect 100% - NCI Share

Goodwill $= 1200 - (1000 + 100 - 10 - 0)$

Goodwill $= 1200 - 1090 = 110$

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		1000	
	Investment in Omega (-A)		1200
Equipment (+A)		100	
	Deferred Tax Liability (+L)		10
Goodwill (+A)		110	

- We debit Common Stock to eliminate Omega's equity: remember consolidation eliminates subsidiary equity.
- We credit Investment in Omega to eliminate the investment from Alfa's books as part of consolidation)
- We debit Equipment to reflect Fair Value/Market Value step-up: 600 – 500 = 100
- We credit DTL for the tax impact of Fair Value revaluation: 10% of 100 = 10)

EG 4:

Alfa purchases 80% shares of Omega. Price paid is 800. Book value of Omega's equity is 1.000.

Omega does not have any plusvalue.

- NCI GW
- NCI PLUSV
- NCI (Non-Controlling Interest) BV = 20% of 1,000 = 200 → since we are purchasing 80 % shares of Omega = 800
- PRICE $= 800$
  - Book Value $= 800$ → i.e. 80% of 1,000 = 800
  - PlusValues $= 0$
  - Goodwill $= 0$

PRICE=800
Goodwill=0
Plusvalues=0
Book value=800

Goodwill=PRICE-(BV Equity 100% + Plusvalues 100% - Tax Effect 100% - NCI Share

Goodwill $= 800 - (1000 + 0 - 0 - 200)$

Goodwill $= 800 - 800 = 0$

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		1000	
	Investment in Omega (-A)		800
	NCI Common Stock		200
Goodwill (+A)		0	

JOURNAL ENTRIES for Consolidate d F/S

- We debit Common Stock to eliminate Omega's equity: remember consolidation eliminates subsidiary equity
- We credit Investment in Omega to eliminate the investment from Alfa's books as part of consolidation)

EG 5:

Alfa purchases 80% shares of Omega. Price paid is 872. Book value of Omega's equity is 1.000.

The fair value of an equipment owned by Omega is 600, while its book value is 500. Tax rate is 10%.

- NCI GW = 0
- NCI PLUSV = 18 → i.e. 20% of 90 = 18
- NCI (Non-Controlling Interest) BV = 20% of 1,000 = 200 → since we are purchasing 80 % shares of Omega = 800
- PRICE $= 872$
  - Book Value $= 800$ → i.e. 80% of 1,000 = 800
  - PlusValues $= 72$
    - GROSS PlusValue = 600 FV of Equip. – 500 BV of Equip . = 100
    - NET OF TAX PlusValue = 100 – (100 x 10%) = 90
      - Alpha owns 80% of Omega: it owns 80% of the PlusValue = 20% x 90 = 72
      - Minorities own 20% of Omega : they own 20% of the PlusValue = 20% x 90 = 18
  - Goodwill $= 0$

PRICE=872
Goodwill=0
Plusvalues=72
Book value=800

Goodwill=PRICE-(BV Equity 100% + Plusvalues 100% - Tax Effect 100% - NCI Share

Goodwill $= 872 - (1000 + 100 - 10 - 218)$

Goodwill $= 872 - 872 = 0$

* NCI $= 218 \rightarrow$ ie = 200 (Book Value) + 18 (Plusvalue)

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		1000	
	Investment in Omega (-A)		872
Equipment (+A)		100	
	Deferred Tax Liability (+L)		10
	NCI Common Stock (+SE)		218
Goodwill (+A)		0	

- We debit Common Stock to eliminate Omega's equity: remember consolidation eliminates subsidiary equity)
- We credit Investment in Omega to eliminate the investment from Alfa's books as part of consolidation)
- We debit Equipment to reflect Fair Value/Market Value step-up: 600 – 500 = 100)
- We credit DTL for the tax impact of PlusValue : 10% of 100 = 10)

EG 6:

Alfa purchases 80% shares of Omega. Price paid is 950. Book value of Omega's equity is 1.000.

The fair value of an equipment owned by Omega is 600, while its book value is 500. Tax rate is 10%.

- NCI GW = 0 → we don't consider any goodwill attributable to the Minority

We attribute GOODWILL only to the Parent company: the one acquiring

- NCI PLUSV = 18 → i.e. 20% of 90 = 18
- NCI (Non-Controlling Interest) BV = 20% of 1,000 = 200 $\Longrightarrow$ since we are purchasing 80 % shares of Omega = 800

$\Longrightarrow$Value attributable to minority = net fair value of assets $\Longrightarrow$ i.e. : NCI PLUSV + NCI BV

- PRICE $= 950$
  - Book Value $= 800$ → i.e. 80% of 1,000 = 800
  - PlusValues $= 72$
    - GROSS PlusValue = 600 FV of Equip. – 500 BV of Equip . = 100
    - NET OF TAX PlusValue = 100 – (100 x 10%) = 90

PRICE=950
Goodwill=78
Plusvalues=72
Book value=800

- Alpha owns 80% of Omega: it owns 80% of the PlusValue = 20% x 90 = 72
- Minorities own 20% of Omega : they own 20% of the PlusValue = 20% x 90 = 18

- Goodwill $= 78$

Goodwill=PRICE-(BV Equity 100% + Plusvalues 100% - Tax Effect 100% - NCI Share

Goodwill $= 950 - (1000 + 100 - 10 - 218)$

Goodwill $= 950 - 872 = 78$

* NCI $= 218 \rightarrow$ ie = 200 (Book Value) + 18 (Plusvalue)

DR	CR	DR (Amount)	CR (Amount)
Common Stock (-SE)		1000	
	Investment in Omega (-A)		950
Equipment (+A)		100	
	Deferred Tax Liability (+L)		10
	NCI Common Stock (+SE)		218
Goodwill (+A)		78	

- We debit Common Stock to eliminate Omega's equity: remember consolidation eliminates subsidiary equity.
- We credit Investment in Omega to eliminate the investment from Alfa's books as part of consolidation
- We debit Equipment to reflect Fair Value/Market Value step-up: 600 – 500 = 100)
- We credit DTL for the tax impact of PlusValue : 10% of 100 = 10

Comprehensive Exercise

TEXT:

On January 1, company Alpha acquired 90% stake in company Beta paying a price of 12,000. The BS of Beta at the date of acquisition showed **common stock** for **9,600** and **total equity** for **11,000**. The income statements and balance sheets of the two companies are reported at the end of the exercise.

At the same date (January 1, X), the fair value of all assets and liabilities of Beta coincided with their book value, except for the following:

Asset	Carrying Amount	Fair Value
Property	6000	7000

Useful life of property is expected to be 5 years. The remaining positive consolidation difference is allocated to goodwill. Assume that at the date of consolidation the recoverable amount of goodwill exceeds its carrying amount.

In order to compute the deferred tax effects on surplus, consider a **tax rate of 50%**.

Please compute NCI using ***proportional goodwill***.

Moreover, during the year X the following intercompany operations took place:

1. During the year, Beta rendered a service to Alpha. The amount invoiced by Beta is 1.000. At year end, 25% of the amount is not paid yet.
2. Beta sold goods to Alpha at the price of 2,000 and makes a profit, thanks to this sale, for 500. At year end the 30% of goods has been sold to third parties; the amount was fully paid
3. On January, 1 Beta sold to Alpha a plant which was purchased at the price of 6,000 and depreciated for 1,000. The selling price was 7,000. Beta was going to depreciate the asset on a straight-line basis, recognizing an annual depreciation of 450; Alpha, however, recognizes an annual depreciation (on a straight-line basis) of 500.
4. During the year, **Beta** paid **dividends** for **1,000**.

SOLUTION:

Book value:

- **Price paid for 90% of Beta**: 12000€
- **Book value of 100% of Beta**: stockholders' equity 11000€ (9600 common stock + 1400 reserves)
- So the **book value of 90% of Beta**: $90\% \cdot 11000 = 9900€$
- Then the **book value of 10% of Beta (NCI)** is $10\% \cdot 11000 = 1100€$

Property Adjustments:

- **Book Plusvalue**: $1000€$
- **Deferred tax effect (50% tax)**: $1000 \cdot 50\,\% = 500€$
- **100% Plus value net of tax**: $1000 - 500 = 500€$
- Since we have purchased the **90%**, the **plus values net of tax** is $500 * 90\,\% = 450€$
- And the **10% plus values net of tax** (NCI) is then $50€$.

Goodwill calculation:

We use the Proportional Method: we assign to the **NCI 0€ as a goodwill.** This means that **NCI** is **1150€**.

PRICE = 12000 (90%)	NCI (10%) (1150)
Goodwill=	Goodwill=0
Plusvalues net tax=450	Plusvalues net tax=50
Book value=9900	Book value=1100

At the acquisition date we need to delete:

- Investment in Beta
- Net worth of Beta (common stock + reserves)
- Plus values of the property with relative DTL
- NCI share

We need to make adjustments:

DR	CR	DR (Amount)	CR (Amount)
	Investment (-A)		12000
Common Stock (-SE)		9600	
Reserves (-SE)		1400	
Property (+A)		1000	
	Deferred Tax Liability (+L)		500
	NCI Common Stock & RE (+SE)		1150
Goodwill (+A)		**1650**	

We find that the **Goodwill** is **1650**.

B. **Depreciate/Amortize any plusvalue/minusvalue**:

In the periods subsequent to the acquisition, it is necessary to ↓ the difference between BV and FV allocated on the depreciable/amortizable assets, according to their depreciation plan. Remember that **goodwill is only impaired and NOT amortized**.

Income taxes must be adjusted accordingly because:

- On one side the **plusvalue** ↓ so we need to ↓ **the associated deferred tax** in the BS
- On the other side, an **additional expense** (=**depreciation** of plusvalue) changes the balance of the group's income before taxes, so we need to **simulate lower tax expenses** at the group level.

EG: (continuation of the exercise)

The asset, with **book value=6000€** and **fair value=7000€**, has an **expected useful life of 5y,** so the **plus value of 1000€** is **depreciated 200€ per year**. The journal entries are the following:

DR	CR	DR (Amount)	CR (Amount)
Depreciation Expense (+E)		200	
	Accumulated Depreciation (-A)		200

The subsidiary will have as depreciation expense 1200 per year (6000/5) in its separate FS.

If the companies had merged, the depreciation expense would have been 1400 per year (7000/5) since we need to take into consideration the fair value of the asset.

At the end of the year (when we make the FS), we need to take into account one year of depreciation, since 1 year passed, so:

DR	CR	DR (Amount)	CR (Amount)
Deferred Tax Liability (-L)		100	
	Income Tax Expense (-E)		100

C. **Eliminate any intra-group transactions**:

This adjustment consists in a ↓ of **expenses** and **revenues** intra-group for the **total** of the amount recorded in the FS during the year and of the related intra-group **receivables** and **payables** for their **outstanding balance** at the end of the year.

PBT is not affected so **no adjustments to taxes** are **required**.

Journal entries **BETA** (separate)

DR	CR	DR (Amount)	CR (Amount)
A/R (+A)		1000	
	Service Revenue (+R)		1000
Cash (+A)		750	
	A/R (-A)		750

Journal entries **ALFA** (separate)

DR	CR	DR (Amount)	CR (Amount)
Service Expense (+E)		1000	
	A/P (+L)		1000
A/P (+L)		750	
	Cash (-A)		750

What Journal entries would have been recorded if companies were a **single legal entity**?

NONE!

Consolidation adjustment:

DR	CR	DR (Amount)	CR (Amount)
Service Revenues (-R)		1000	
	Service Expense (-E)		1000
	Cash (-A)		750
	A/R (-A)		250
A/P (-L)		250	

D. **Elimination of intra-group profit of inventories**:

The goal of this consolidation adjustment consists in eliminating the effect of intra-group transactions regarding sales of goods. This consolidation adjustment requires first, to understand whether the goods which are sold intra-group are then resold to third parties, or not.

- In case (and for the %) of goods **sold to third parties** the adjustment consists in:
  - **eliminating only intra group revenues and expenses**.
  - **No effect on income before tax**.
- In case (and for the %) of goods **still in inventories at year end**, the adjustment consists in:
  - ↓ revenues
  - ↓ expenses
  - ↓ (for the difference) the balance of inventory, which must be restated to the value prior the transaction.
  - **Income before tax changes:**
    - Every time **IBT** ↓, we need **Income Tax Expense (ITE)** to ↓ for consolidation purposes.
    - Every time **IBT** ↑, we need **Income Tax Expense (ITE)** to ↑ for consolidation purposes.

  The Journal entries ITE is closed in offset by adjusting either the deferred tax asset or liability (DTA or DTL) correspondently.

You can see that I use colors in the following tables. It's because entries with the same color are "paired" and should be eliminated in most of the cases.

EG:

During year «X», Beta purchased goods at 2,000 $. These goods were sold to Alpha at 4,000 $.

At year end, Alpha has in inventory 30% of those goods. 70% was sold at 3,100 $.

Total 2000 => 4000

We split the transaction into 2:

- 30% inventory 600 => 1200
- 70% OUT 1400 => 2800 OU

BETA

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		1400	
	Cash (-A)		1400
COGS (+E)		1400	
	Inventory (-A)		1400
Cash (+A)		2800	
	Revenue (+R)		2800

ALPHA

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		2800	
	Cash (-A)		2800
COGS (+E)		2800	
	Inventory (-A)		2800
Cash (+A)		3100	
	Revenue (+R)		3100

If alpha and beta were a single alphabeta company, which journal entries would have been recorded as a single legal entity?

ALPHABETA

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		1400	
	Cash (-A)		1400
COGS (+E)		1400	
	Inventory (-A)		1400
Cash (+A)		3100	

DR	CR	DR (Amount)	CR (Amount)
	Revenue (+R)		3100

Consolidation adjustment:

DR	CR	DR (Amount)	CR (Amount)
Sales Revenues (-R)		2800	
	COGS (-E)		2800

Part 2 30% of Goods in Inventories at Year End:

BETA

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		600	
	Cash (-A)		600
COGS (+E)		600	
	Inventory (-A)		600
Cash (+A)		1200	
	Revenue (+R)		1200

ALPHA

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		1200	
	Cash (-A)		1200

ALPHABETA

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		600	
	Cash (-A)		600

Consolidation adjustment:

DR	CR	DR (Amount)	CR (Amount)
Sales Revenues (-R)		1200	
	COGS (-E)		600
	Inventory (-A)		600

IBT ↓ by 600. We eliminated more revenues than expenses. Taxes ↓

DR	CR	DR (Amount)	CR (Amount)
	Income Tax Expense (-E)		300
Deferred Tax Asset (+A)		300	

E. **Elimination of intra-group profit on non-current assets**:

This adjustment requires both:

- **Eliminating any gain/loss on sale in arising from the intra-group sale of long-lived assets**; the underlying asset's balance must be restated consequently.
- **Adjusting the depreciation or amortization to the amount that the vendor would have recorded in case the sale didn't occur**.

For consolidation purposes taxes shall be adjusted correspondingly.

EG:

On January, 1 Beta sold to Alpha a plant which was purchased at the price of 6,000 and depreciated for 1,000. The selling price was 7,000. Beta was going to depreciate the asset on a straight-line basis, **recognizing an annual depreciation of 450**; Alpha, however, recognizes an annual depreciation (on a straight-line basis) of 500.

BETA (separate)

DR	CR	DR (Amount)	CR (Amount)
Cash (+A)		7000	
Accumulated Depreciation (-XA)	**Plant (+A)**		6000
		1000	
	Gain on Sale (+R)		2000

ALPHA (separate)

DR	CR	DR (Amount)	CR (Amount)
Plant (+A)		7000	
Depreciation Expense (+E)	**Cash (-A)**		7000
		500	
	Accumulated Depreciation (+XA)		500

ALPHABETA

DR	CR	DR (Amount)	CR (Amount)
Depreciation Expense (+E)		450	
	Accumulated Depreciation (+XA)		450

Consolidation adjustment

DR	CR	DR (Amount)	CR (Amount)
Gain on Sale (-R)		2000	
Accumulated Depreciation (-XA)	**Plant (-A)**		2000
		50	
	Depreciation Expense (-E)		50

F. **Elimination of Intra-group Dividends**:

This adjustment consists in:

- ↓ of **Dividend Revenues** recorded by the **parent** in its separate FS
- ↑ of **R/E** of the **subsidiary**.

If the 2 legal entities were one, no switch from RE to Revenues would have ever been recorded. This is the adjustment for the share held by the parent company.

Provided that dividends are exempt from taxation, when dividend revenue ↓, income before tax ↓, but **taxes are not affected by this adjustment**.

In case there are **NCI**, and for their share of dividend, this adjustment requires also to:

- ↓ the amount of NCI share of **Common Stock** and **R/E** that we assigned them under the first consolidation adjustment for an **amount corresponding to the dividend they receive** and **in offset the restatement of the RE of the group**.

EG 1: On January 1st Alpha purchased **100%** of the shares of Beta paying 10,000 €. NBV of Beta's equity at the date of acquisition was **€ 10,000** (9,000 common stock, 1,000 retained earnings). No plusvalues exist. Beta paid € 1,000 dividends during the year.

PRICE=10000
Goodwill=0
Plusvalues=0
NBV=10000

At acquisition date price coincided with the NBV. The journal entries that we do are:

ADJ 1: elimination of the investment

DR	CR	DR (Amount)	CR (Amount)
	Investment (-A)		10000
Common Stock (-SE)		9000	
Retained Earnings (-SE)		1000	

ADJ 2:

DR	CR	DR (Amount)	CR (Amount)
	Retained Earnings (+SE)		1000
Dividend Revenue (-R)		1000	

Back to the Comprehensive exercise:

4. During the year, Beta paid dividends for 1,000.

Recalling these journal entries:

DR	CR	DR (Amount)	CR (Amount)
	Investment (-A)		12000
Common Stock (-SE)		9600	
Reserves (-SE)		1400	
Property (+A)		1000	
	Deferred Tax Liability (+L)		500
	NCI Common Stock & RE (+SE)		1150
Goodwill (+A)		**1650**	

We can do this:

Parent Company Share:

DR	CR	DR (Amount)	CR (Amount)
Dividend Revenue (-R)		900	
	Retained Earnings (+SE)		900

NCI:

DR	CR	DR (Amount)	CR (Amount)
	Retained Earnings (+SE)		100
NCI CS + RE (-SE)		100	

G. **Allocation of minorities' net income**:

This adjustment consists only in ↓ the group's income and ↑ the NCI's net income.

The calculation is based on conventional formulas, and it is as follows:

1. Take **Net Profit/Loss of the subsidiary** resulting from the separate FS
2. Ignore all those consolidation adjustments with no impact on Net Profit.
3. For those adjustments with an impact on consolidated net income:
   A. **Consider the depreciation of plus value**s and **adjust the profit**
   B. **Ignore any change in Profit for Dividends recorded by the parent**.
   C. Conventionally, consider in increasing/decreasing the profit only those transactions so called **upstream** i.e. when the subsidiary sells to the parent)
4. Do the **total**
5. Multiply the **total by the % owned by NCI**

Net P/L=2000
-100
-175-1000+25

EG: Point 2 of the Comprehensive Exercise:

1500 => Beta =>2000 to Alpha => a part resold

450 => Beta =>600 to Alfa => resold 30%. Adjust only revenues and expenses.

1050 => Beta =>1400 to Alfa => in inventory 70%

Separate FS

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		1050	
	Cash (-A)		1050
COGS (+E)		1050	
	Inventory (+A)		1050
Cash (+A)		1400	
	Sales Revenue (+R)		1400

Separate FS:

DR	CR	DR (Amount)	CR (Amount)
Inventory (+A)		1400	
	Cash (-A)		1400

30% part adjustment

DR	CR	DR (Amount)	CR (Amount)
Sales Revenues (-R)		600	
	COGS (-E)		600

70% part adjustment

DR	CR	DR (Amount)	CR (Amount)
Sales Revenues (-R)		1400	
	COGS (-E)		1050
	Inventory (-A)		350

PBT ↓, ITE ↓

DR	CR	DR (Amount)	CR (Amount)
	Income Tax Expense (+E)		175
Deferred Tax Asset (+A)		175	

EG: Point 3 of the Comprehensive Exercise:

- We need to find the **original NBV of the plant in Beta**: when Beta sells the plant to Alpha, in consolidated FS we need to link the plant to its original cost (in Beta), not at the price of the intra group transaction.
  Original NBV=600-1000=**5000** (I subtract 1000 because it is the accumulated depreciation)
- **Eliminate the intra-group plusvalue**: the difference between intra group selling price and the NBV does not represent a real plus value for the group.
  Plusvalue= selling price - NBV = 7000-5000=**2000**
  We bring the original NBV back eliminating the gain on sale.

DR	CR	DR (Amount)	CR (Amount)
	Plant (-A)		2000
Gain on Sale of Assets (-		2000	

- **Eliminate the DTL referred to the plus value that we eliminated**: the intragroup plus value eliminates potential taxes that will be realized only when the good will exit the group. 3rd and 4th lines.

DR	CR	DR (Amount)	CR (Amount)
	Income Tax Expense (-E)		1000
Deferred Tax Liability (-L)		1000	

- **Calculate the difference in annual depreciation** between alpha (500) and beta (450) = 50
  Beta would have depreciated the plant on a 5 year basis (450/y) but Alpha in his separate FS used a different useful life that generates a depreciation of 500/y.
  We need to make that in the consolidated FS, the effective depreciation is the one of Beta (450) so we need to neutralize the excess of 50 that Alpha accounted for.

  and adjust it by ↓ Accumulated Depreciation and ↓ Depreciation Expense.

DR	CR	DR (Amount)	CR (Amount)
Accumulated Depreciation (-XA)		50	
	Depreciation Expense (-E)		50

- **Reverse the DTL referred to the ↓ in depreciation above**: those extra 50 of depreciation, eliminated in consolidation, reduce the deferred taxable temporary difference by the same amount, and therefore we ned to reverse the corresponding DTL on that portion.

DR	CR	DR (Amount)	CR (Amount)
Income Tax Expense (+E)		25	
	Deferred Tax Liability (+L)		25

FOR DOUBTS OR SUGGESTIONS ON THE HANDOUTS

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TEACHING DIVISION

OUR PARTNERS

700+ CLUB

ETHAN SUSTAINABILITY

DELIVERY VALLEY
NO GENDER KITCHEN

LA PIADINERIA