Accounting Foundations

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Accounting Foundations

1. What is accounting?
2. Transactions as accounting events
3. Basic concepts
4. Accounting equation
5. Revenue recognition
6. The Basics of Financial Statements
7. Accounting/financial Metrics
8. Data sources

1. What is accounting?

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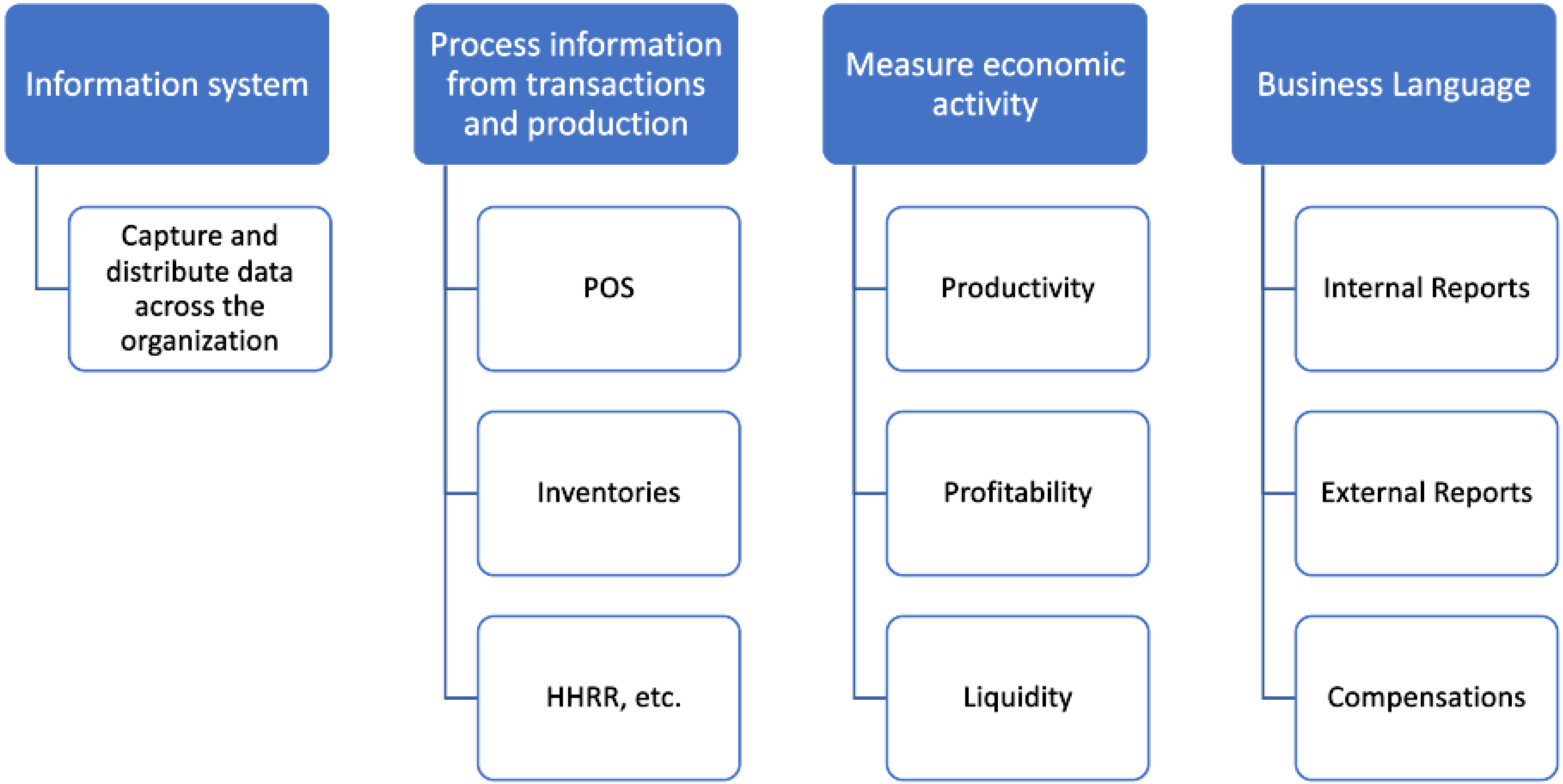

2. Transactions as accounting events

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What information is important to capture, process, aggregate, and report?

1. Purchasing merchandize or raw materials
2. Hiring employees
3. Contracting a loan
4. Selling goods or services
5. Returning goods to suppliers
6. Paying employees

3. Basic concepts

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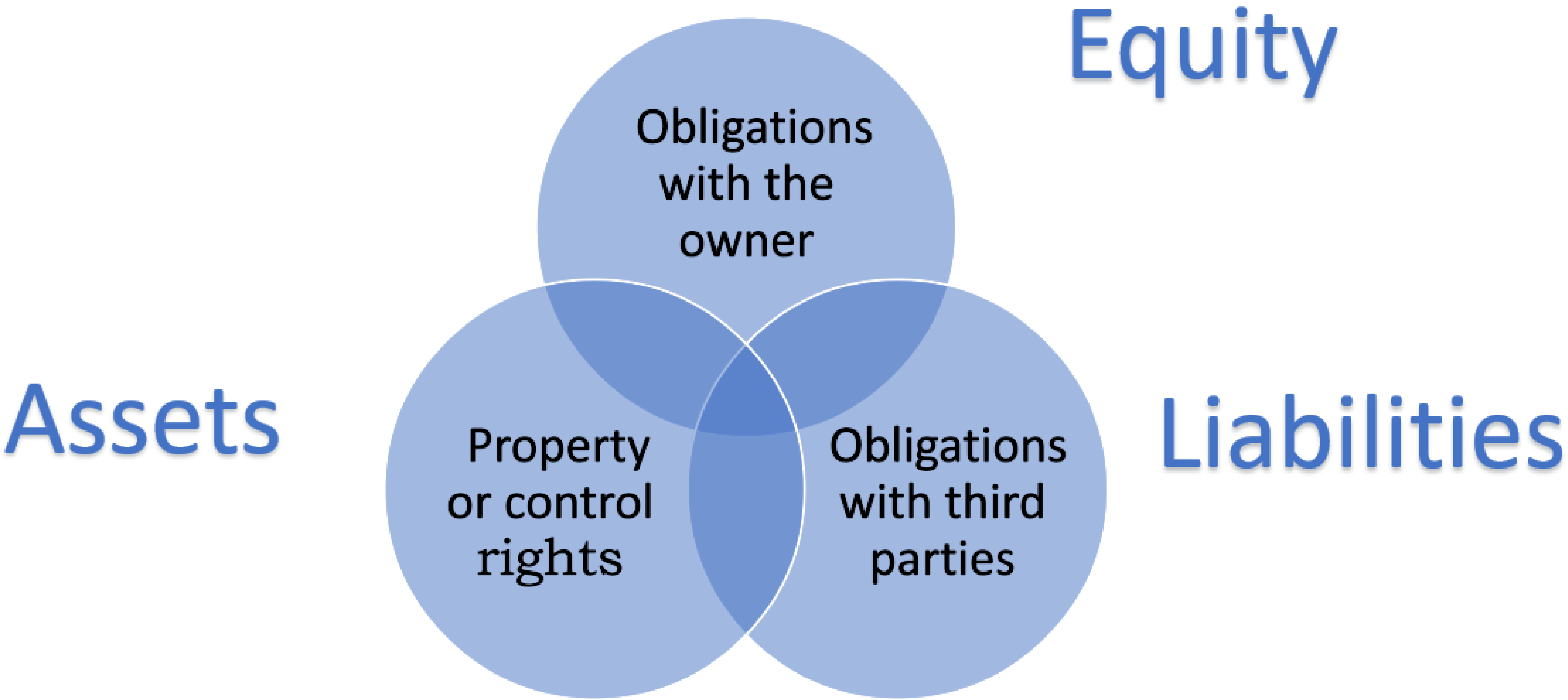
Transactions modify specific economic components of the company.



3. Basic concepts

3.1 Assets: Classification

Current Assets

1. Cash and cash equivalents
2. Accounts receivable
3. Inventory
4. Prepaid expenses
5. Other current assets

Non-current Assets

1. Long-term investments
2. Property, plant, and equipment
3. Intangible assets
4. Other non-current assets

3.2 Liabilities: Classification

Current Liabilities

1. Accounts payable
2. Current portion of Long-term debt
3. Accrued liabilities
4. Deferred revenues
5. Other current liabilities

Non-current liabilities

1. Long-term debt
2. Deferred income tax
3. Pension liabilities
4. Other long-term liabilities
5. Commitments and contingent liabilities

3.3 Equity: Classification

- Share capital
  - Common stock
  - Preferred stock
  - Additional paid-in capital
- Retained earnings
- Treasury stock
- Accumulated other comprehensive income

4. Accounting Equation

4. Accounting Equation

$$Assets = Liability + Equity$$

- Transactions (or economic events) modify assets, liabilities, and equity.
- However, always the **accounting equation holds**.
- This equation is the basis of **double-entry accounting.**

5. Revenue recognition

5. Revenue recognition

It is the second pillar in accounting. It is the process of recording revenue in the financial statements. When a company records revenues, it must also record expenses. This is the **matching principle**:

1. Recognizing revenue when earned, regardless of when payment is received.
2. Expenses should be matched with revenues they helped to generate in the same period, even if payment occurs later.

Example:

Silvana eTravel SA Let's apply the accounting equation and matching principle to the following transactions:

Transaction 1: Starting the business

Silvana invested $30,000 of her own money to start the business.

She deposits $30,000 in a "Silvana eTravel SA" bank account.

Transaction 2: Buying an office

Silvana purchases an office, paying $20,000 in cash.

Depreciation: $200

Transaction 3: Buying an office supplies

Silvana buys office supplies, agreeing to pay $500 within 30 days.

These supplies will last until the end of the year

Transaction 4: Earnings of Service Revenue

Silvana eTravel earns service revenue by providing travel services for clients.

She earns $5,500 in revenue and collects this amount in cash.

The labor cost of providing the service was $600.

Transaction 5: Revenue on account

Silvana eTravel performs services for clients who do not pay immediately.

Silvana receives clients’ promises to pay $3,000 within one month in return for her travel services.

The labor cost of the service was $200.

Transaction 6: Paying expenses

Silvana eTravel during the month pays with cash:

Office rent, $1,100.

Web Hosting, $1,200.

Utilities, $400.

Transaction 7: Long-term debt

Silvana borrows $5.000 using a bank credit. The first year will pay $35 on interest expenses.

6. The Basics of Financial Statements

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6.1 Aggregations

Each transaction or economic event requires determining an amount affecting the basic accounting elements.

Some rules help us to define these amounts.

- **IFRS**: International Financial Reporting Standards
- **US GAAP**: Generally Accepted Accounting Principles

Consistency across time and transactions is Key!

Asset valuation

1. **Historical Cost**: Assets are valued at their original cost.
    i. Acquisition cost
    ii. Production cost
2. **Fair Value**: Assets are valued at their current fair value.
    i. Market value
    ii. Net realizable value

Liabilities Valuation

1. **PVFP**: Present value of future payments.
2. **Expected PVFP**
3. **Fair Value**: Liabilities are measured at their current fair value.
4.

Equity Valuation

1. **Historical Cost**: Retained earnings at original cost.
2. **Revaluation Reserves**: Equity can be revalued to fair value through reserves.
3. **Fair Value through OCI**: Some equity instruments can be valued at fair value through other comprehensive income.

6.2 Financial Statements: Why?

Once we have **recorded all the transactions using the same rules**, we need to aggregate them to provide helpful information to the users of the financial statements.

Users of financial statements:

1. Investors
2. Creditors
3. Employees
4. Customers
5. Suppliers
6. Governments

… but why do they need financial statements? What are they looking for?

6.3 Balance sheet

The balance sheet is a statement that lists what the organization owns (assets), what it owes (liabilities), and what it is worth (equity) on a specific date.

Silvana eTravel Balance sheets

As of December 31, 2022

Assets		**€**	**40.100**
Current assets		€	*20.300*
	Cash and cash equivalents	€	17.300
	Accounts receivable	€	3.000
	Inventories		
	Other current assets		
Noncurrent assets		€	*19.800*
	Property Plan and Equipment, Net	€	19.800
	Goodwill, Net		
	Other Intangible assets		
Liabilities and Shareholders' Equity		**€**	**40.100**
Current Liabilities		€	835
	Accounts payable		
	Short-term debt	€	35
	Income taxes liabilities		
	Accrued expenses	€	800
Noncurrent Liabilities		€	5.000
	Long-term debt	€	5.000
	Deferred income taxes		
	Commitments and contingent liabilities		
Shareholders' Equity		€	34.265
	Share capital/Issued Capital	€	30.000
	Retained Earnings	€	4.265

6.3 Income Statement

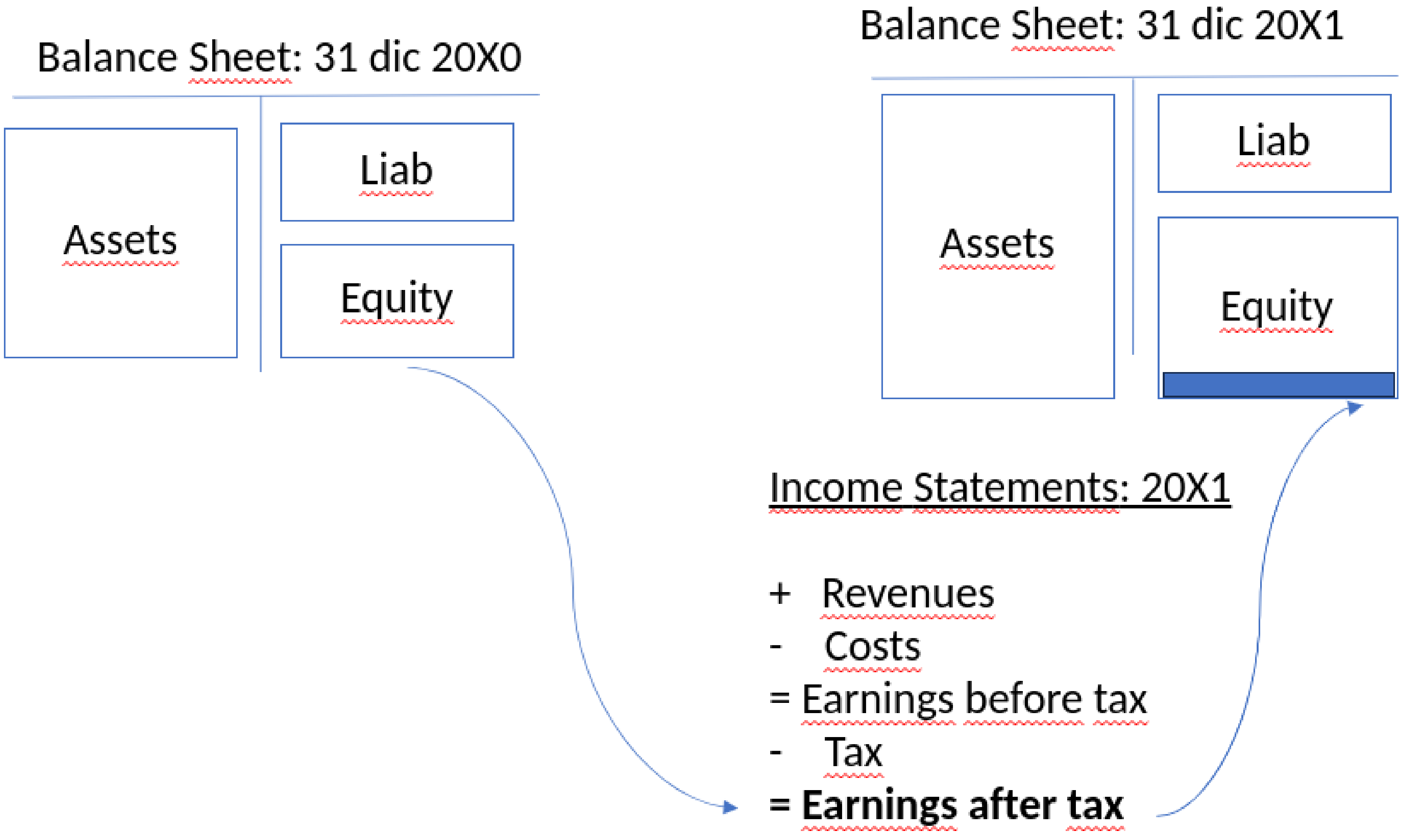
The Income Statements show the organization's financial performance for a given period.

Its main components are:

Silvana eTravel Income Statement

For the period ended at December 31, 2022

Revenues	€	8.500
Cost of service	-€	*800*
Gross Margin	**€**	**7.700**
Selling, General, and Administrative expenses	-€	1.800
Advertising		
Depreciation	-€	200
Rent	-€	1.100
Payrol taxes		
Salaries and wages		
Supplies	-€	500
Travel and entertainment		
Other operating income/expense	-€	1.600
Operating Margin	**€**	**4.300**
Financial Income		
Financial Expense	-€	35
Financial Profit	**-€**	**35**
Income before income tax	€	4.265
Provision for income tax		
Net income	**€**	**4.265**


Balance Sheet: 31 dic 20X0
Assets
Liab
Equity
Balance Sheet: 31 dic 20X1
Assets
Liab
Equity
Income Statements: 20X1
+ Revenues
- Costs
= Earnings before tax
- Tax
= Earnings after tax

6.3 Cash Flow Statement

The matching principle implies that cash inflows and outflows differ from revenues and expenses.

Therefore, to understand the company's cash flows, we must prepare a separate statement called the Cash Flow Statement.

Components:

1. Cash flows from operating activities: main business activities.
2. Cash flows from investing activities: purchase and sale of assets.
3. Cash flows from financing activities: issuance and repayment of debt and equity.

6.3 Owners' Equity Statement

How the *Equity* of an organization has changed over a specified period.

In general, the focus is on what elements affected the two main components of *Equity* during the period: *Common Stock* and *Retained Earnings*.

Why could other stakeholders be interested in this?

- Creditors check if the company is reinvesting enough. Each dollar paid as a dividend is a dollar that cannot be paid later on to credits.
- External investors also see if the company is increasing its capital base. It indicates that current shareholders see growth opportunities that need to be financed.

Components:

1. Beginning balance of equity accounts
2. **Common Stock/Subscribed Capital**: + capital increase; - Capital decrease
3. **Retained Earnings**: + net income; - net loss; - dividends
4. Ending balance of equity accounts

7. Accounting/Financial Metrics

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7.1 Context and Process

Financial statements help to evaluate the financial performance and efficiency of the overall company and its different business segments

Managers have an advantage relative to external investors: they can rely on more data and request reports tailored to specific managerial questions. That will be the focus of the Managerial Accounting Sections.

Now, we will study a general framework for financial analysis (meaning using the same data that an external investor would have)

- How is our company growing? Type of assets, funding.
- Do we need to change our liquidity/solvency policy?
- Are we using our assets efficiently?
- What is driving our profits/losses?It is not only helpful in evaluating our company (or business unit) but also competitors, suppliers, and customers.

Steps

1. Economic factors:
   i. Unemployment rate
   ii. Inflation rate
   iii. Interest rates
2. Industry factors:
   i. Industry growth
   ii. Industry structure: competition, barriers to entry, etc.
   iii. New products or technologies
3. Company factors:
   i. Business model
   ii. Long-term plans
   iii. Who?

7.2 Analysis and Metrics

After analyzing the context, we can analyze the company's financial statements.

1. Comparison across time:
    - How is the company doing relative to previous years?
    - What has internally and externally changed?
        - Internal: new CEO, new products, new production technology.
        - External: changes in demand, stricter financing conditions.
2. Comparison within industry peers:
    - What explains cross-sectional differences?
    - Different shocks, efficiencies, innovation, or new products

Areas of Financial Statement Analysis:

1. Credit (Risk) Analysis:

1. Liquidity. To evaluate the ability to meet short-term obligations.
2. Capital structure and solvency. To assess the ability to meet long-term obligations.

2. Profitability Analysis:

1. Return on investment. To assess financial rewards to the suppliers of equity and debt financing.
2. Operating performance. To evaluate profit margins from operating activities.
3. Asset utilization. To assess the effectiveness and intensity of assets in generating sales, also called turnover.

3. Valuation

1. To estimate the intrinsic value of a company (stock).

Common rules:

- Balance sheet items: Ratios are calculated using average values.
- Income statement items: Ratios are calculated using year-end values.
- Cash flow statement items: Ratios are calculated using year-end values.

Liquidty Ratios	**Formula**
Current Ratio	Current Assets / Current Liabilities
Liquidity Ratio	(Current Assets - Inventories) / Current Liabilities
Acid Test	(Cash + Accounts Receivable + Short-Term Investments) / Current Liabilities
Working Capital	Current Assets - Current Liabilities
Collection Period	Accounts Receivable / (Sales / 365)
Days to sell inventory	Inventory / (Cost of Goods Sold / 365)

Solvency Ratios	Formula
Financial Leverage	Liabilities / Total Assets
Long-Term Debt Ratio	Long-Term Debt / Total Assets
Times Interest Earned	EBIT / Interest Expense

Return on Investment Ratios	**Formula**
Return on Assets	Net Income + interest expense (1-tax rate) / Total Assets
Return on Equity	Net Income / Total Equity

Efficiency Ratio	Formula
PPE Turnover	Sales / PPE
Inventory Turnover	Cost of Goods Sold / Average Inventory
(1) Days Receivable	(Accounts Receivable / Net Credit Sales) × 365
(2) Days Payable	(Accounts Payable / Cost of Goods Sold) × 365
(3) Day Stocks	(Average Inventory / Cost of Goods Sold) × 365
Cash Cycle	(1)+(2)+(3)

Valuation	Formula
Price-Earnings Ratio	Market Price per Share / Earnings per Share
Price-to-Book Ratio	Market Price per Share / Book Value per Share
Dividend Yield	Dividends per Share / Market Price per Share
Dividend Payout Ratio	Dividends per Share / Earnings per Share

- For an analysis of a company's financial statements, see the appendix of the slides.
  - It compares Volkswagen and Mercedez-Benz.
  - As many analysts do, they use accounting items "as they are" in the financial statements without adjusting them.
- However, in the first part of this course, we will dig deep and learn how to measure them correctly:
  - Topic 2: Adjustments to represent real financing activity
  - Topic 3: Adjustments to represent real investing activity
  - Topic 4: Adjustments to represent real operating activity

8. Data sources

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8.1 This course

🔎 Let's have a first glance at the financial statements of the companies we will use as examples throughout the course.

Country	Company	Standard
Spain	Grifols	IFRS
Spain	Inditex	IFRS
Germany	Volkswagen	IFRS
Germany	Mercedes-Benz	IFRS

USA:

- Background Analysis: Read Item 7.
- Financial Statements: Read Item 8.

Colgate-Palmolive: search for "Index to Financial Statements" in the 10-K form.

Apple: search for "Financial Statements and Supplementary Data in the 10-K form.

Spain (and most of the EU):

- Background Analysis: read "Directors' (Management) Report."
- Financial Statements: read "Consolidated Annual Accounts."

Grifols: search for "Balance Sheet" in the 2022 Annual Accounts.

Inditex: search for "Sheet" in the 2022 Annual Accounts.

8.2 Other sources

Detailed financial statements from regulators

- SEC: Search for the company name and look for the 10-K form.
    - Instructions
- CNMV: Search for the company name and look for the "Annual Accounts" section.

(Free) Financial data providers

- Yahoo Finance: Search for the company name and look for the "Financials" tab.
- Google Finance: Search for the company name and look for the "Financials" tab.

News and analysis

- Seeking Alpha
- Simply Wall St.

Questions ❓

Check my website for an updated version of this presentation:

👉 https://www.marceloortizm.com/

Thanks 👏