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## EXAMEN FINANCE RESUMEN

### FORUM DEFINITIONS:

Use your imagination or a real example to develop an example of a company with a negative CCC.

#### Example of a Real Company with Negative Cash Conversion Cycle (CCC): Amazon

Company: Amazon.com, Inc.

**Overview:** Amazon offers a diverse range of products, including electronics, books, apparel, and more, operating primarily in the e-commerce and cloud computing industries. The company sources products from a vast network of manufacturers and suppliers worldwide, encompassing both small businesses and large multinational companies. Amazon's business model includes direct sales, a third-party seller platform, and subscription-based services like Amazon Prime. Additionally, they have an extensive logistics network to ensure quick delivery, enhancing customer satisfaction and operational efficiency.

#### Operation:

##### 1. Customer Orders and Fulfillment:

- Customers place orders through Amazon's online platform, often utilizing Prime membership for expedited shipping. This creates a steady demand and allows for efficient inventory turnover.

##### 2. Inventory Management:

- Amazon uses sophisticated inventory management systems to ensure products are stocked just in time. They leverage data analytics to predict demand and adjust inventory levels accordingly.

##### 3. Supplier Payments:

- Amazon negotiates favorable payment terms with suppliers, allowing them to delay payments while ensuring the continuous flow of goods into their fulfillment centers.

## Cash Conversion Cycle (CCC) Calculation:

The CCC is calculated using three components: Days Inventory Outstanding (DIO), Days Sales Outstanding (DSO), and Days Payable Outstanding (DPO).

### 1. Days Inventory Outstanding (DIO):

$$DIO = \left( \frac{\text{Average Inventory}}{\text{COGS}} \right) \times 365$$
$$DIO = \left( \frac{25,940,000,000}{277,960,000,000} \right) \times 365 = 34 \text{ days}$$

### 2. Days Sales Outstanding (DSO):

$$DSO = \left( \frac{\text{Average Accounts Receivable}}{\text{Annual Revenue}} \right) \times 365$$
$$DSO = \left( \frac{28,350,000,000}{469,820,000,000} \right) \times 365 = 22 \text{ days}$$

### 3. Days Payable Outstanding (DPO):

$$DPO = \left( \frac{\text{Average Accounts Payable}}{\text{COGS}} \right) \times 365$$
$$DPO = \left( \frac{96,270,000,000}{277,960,000,000} \right) \times 365 = 126 \text{ days}$$

### 4. Cash Conversion Cycle (CCC):

$$CCC = DIO + DSO - DPO$$
$$CCC = 34 + 22 - 126 = -70 \text{ days}$$

## Interpretation:

Amazon has a CCC of -70 days. This negative CCC indicates that Amazon collects cash from its sales much faster than it pays its suppliers. In other words, Amazon receives payments from customers before it needs to pay for its inventory, which provides a significant advantage in terms of liquidity and working capital management.

### **Operational Strategies Leading to Negative CCC:**

Amazon has a few key strategies that help it achieve a negative CCC.

First, it manages its inventory very well using advanced systems to keep just the right amount of stock, which means items don't sit in storage for long.

Second, Amazon gets paid quickly by its customers, especially for online purchases, so it doesn't have to wait long for its money.

Lastly, Amazon is good at negotiating with suppliers, so it can delay paying them for a longer time. This combination of quick payments from customers and delayed payments to suppliers helps Amazon maintain a negative CCC.

### **Benefits of a Negative CCC:**

- **Improved Cash Flow:**
  - With a negative CCC, Amazon can reinvest the cash generated from sales before needing to pay its suppliers, enhancing its liquidity position.
- **Reduced Financing Costs:**
  - Amazon's strong cash flow reduces its reliance on external financing for working capital needs, thereby minimizing interest expenses.
- **Competitive Advantage:**
  - The efficient cash cycle allows Amazon to maintain its aggressive growth strategy, invest in new technologies, and offer competitive prices.

In conclusion, Amazon's negative CCC shows how well it runs its operations and manages its finances, allowing the company to keep a strong cash flow and stay a market leader.

### **Steps to Prepare the Three Main Financial Statements**

In the accounting process for preparing the three main financial statements, the initial step involves identifying all financial transactions that occurred within the accounting period, including sales, purchases, expenses, investments, and other financial activities. These transactions are then recorded in the appropriate journals, such as the sales journal or purchases journal, detailing dates, accounts involved, and transaction amounts.

Subsequently, the recorded entries are transferred to the corresponding accounts in the general ledger, ensuring a chronological record of all financial transactions and accuracy in account balances. Following this, a trial balance is compiled to check that total debits equal total credits, providing an overview of the company's financial position before adjustments.

Adjustments are then analyzed, including accruals, prepayments, depreciation, and provisions, and recorded as adjusting journal entries to accurately reflect the financial position and performance of the company. Once adjustments are made, the three main financial statements—the income statement, balance sheet, and cash flow statement—are prepared, summarizing the company's financial performance, financial position, and cash flows, respectively.

Temporary accounts, such as revenue and expense accounts, are closed by transferring their balances to the appropriate permanent accounts, resetting them for the next accounting period. Finally, the financial statements are reviewed for accuracy and completeness, analyzed to assess the company's performance, and communicated to stakeholders through various channels, ensuring compliance with accounting standards and regulations in all disclosures.

### **The P/E ratio**

The price-to-earnings (P/E) ratio is a tool that investors and analysts use to see if a stock is priced fairly. It compares the stock's price to the company's earnings per share. This helps to find out if the stock is too expensive or a good deal.

A high P/E ratio might mean the stock is overpriced or that investors expect the company to grow a lot. A low P/E ratio can look like a good deal because you pay less for each euro the company earns, like finding a cheaper item at a store. But sometimes, a low P/E ratio can mean the company is having problems.

For example, if a company has a P/E ratio of 15, it means the stock price is 15 times its annual earnings. If you bought all the company's shares, it would take 15 years to earn back your money from the company's profits, assuming the earnings stay the same. However, this time could change if the company grows or its earnings change.

## **Develop what balance sheet is, structure, main information available for key players and the limitations it has.**

### **Balance Sheet Overview:**

A balance sheet is a financial statement that shows a company's financial situation at a specific moment. It lists what the company owns (assets), what it owes (liabilities), and the owner's stake (shareholders' equity). The basic formula is:

$$\text{Assets} = \text{Liabilities} + \text{Shareholders' Equity}$$

### **Structure of a Balance Sheet:**

#### **1. Assets:**

- Current Assets: Things that can be turned into cash within a year, like cash, money owed by customers (accounts receivable), inventory, and short-term investments.
- Non-Current Assets: Long-term items that won't become cash within a year, such as buildings, machines (property, plant, and equipment), and things like patents.

#### **2. Liabilities:**

- Current Liabilities: Debts that need to be paid within a year, such as bills from suppliers (accounts payable), short-term loans, and other short-term expenses.
- Non-Current Liabilities: Long-term debts not due within the next year, like long-term loans and bonds.

#### **3. Shareholders' Equity:**

- Common Stock: Money raised by selling shares of the company.
- Retained Earnings: Profits kept in the company instead of being paid out as dividends.
- Additional Paid-In Capital: Extra money paid by investors over the stock's par value.
- Treasury Stock: Value of shares the company has bought back.

## Key Information Available for Stakeholders:

- **Investors** use the balance sheet to see if the company is financially healthy. They look at how well the company can pay its bills and how much profit it makes for shareholders. This information helps investors decide whether to buy, hold, or sell the company's stock.
- **Creditors** look at the balance sheet to decide if the company can pay back its debts. This helps them set terms for loans and credit lines, making sure they lend money to businesses that can repay it.
- **Management** uses the balance sheet to make important decisions about investments, how to organize the company's finances, and where to improve operations. It gives them insights into areas that may need financial adjustments or more investment.
- **Regulators** check balance sheets to ensure companies follow financial reporting rules and to monitor their financial health. This helps keep businesses honest and ensures they are operating safely and responsibly.

## Limitations of a Balance Sheet

1. **Historical Cost:** Assets are listed at their original cost, not current market value, which can create differences between the book value and actual market value.
2. **Snapshot in Time:** It shows the financial situation at one specific time, which may not reflect ongoing financial health or performance.
3. **Intangible Assets:** Things like brand reputation and intellectual property are often not fully shown, missing parts of the company's real value.
4. **Estimates and Judgments:** Some values on the balance sheet, like doubtful accounts and depreciation, are based on estimates, which can introduce bias.
5. **Cash Flow:** The balance sheet doesn't show how cash moves in and out of the company, so other financial statements are needed for a full picture.



Basically a balance sheet is a crucial financial statement that provides valuable insights into a company's financial condition, but it has limitations that mean other financial reports and qualitative factors are also important for a complete understanding.

**Explain what an Income Statement is, its structure, highlight the main subtotals and provide four examples of specific questions that can be answered to a CEO of a company by analyzing this financial statement.**

**Income Statement:** An income statement is a financial report that shows a company's revenues, expenses, and profits over a specific period, such as a quarter or a year. It helps stakeholders understand how well the company is performing in terms of generating profit. By reviewing the income statement, the CEO can make informed decisions about where to cut costs, where to invest more resources, and how to improve overall financial performance.

### **Structure of an Income Statement**

4. **Revenues (Sales):** This is the total amount of money earned from selling goods or services.
5. **Cost of Goods Sold (COGS):** The direct costs associated with producing the goods or services sold by the company. This includes materials and labor.
6. **Gross Profit:** Calculated as Revenues minus COGS. This shows the profit made before deducting operating expenses.
7. **Operating Expenses:** These are the costs required to run the company that are not directly tied to producing goods or services. They include:
  - Selling, General, and Administrative Expenses (SG&A): Costs related to sales, marketing, administration, and overhead.
  - Research and Development (R&D): Costs associated with developing new products or services.
8. **Operating Income:** Also known as operating profit, this is calculated as Gross Profit minus Operating Expenses. It shows the profit from the company's core business activities.
9. **Other Income and Expenses:** Includes items not related to core business operations, such as interest income, interest expense, and gains or losses from investments.

10. **Income Before Tax:** Calculated as Operating Income plus or minus Other Income and Expenses.
11. **Taxes:** The amount of money owed to the government based on the company's taxable income.
12. **Net Income:** this is the final profit after all expenses, including taxes, have been deducted. It represents the company's overall profitability.

### **Key Subtotals**

- Gross Profit: Revenues minus Cost of Goods Sold.
- Operating Income: Gross Profit minus Operating Expenses.
- Income Before Tax: Operating Income plus/minus Other Income and Expenses.
- Net Income: Income Before Tax minus Taxes.

### **Questions Answered by Analyzing the Income Statement**

1. **How much revenue is the company generating?:** This helps the CEO understand the total sales performance over the period.
2. **What is the company's gross profit margin?:** By looking at Gross Profit, the CEO can determine how efficiently the company is producing its goods or services relative to its sales.
3. **Are operating expenses under control?:** Analyzing Operating Expenses helps the CEO identify if costs related to sales, marketing, and administration are being managed effectively.
4. **What is the net profit margin?:** By examining Net Income, the CEO can see the overall profitability of the company after all expenses and taxes, giving insight into financial health and performance.

### **Profit vs cash : How can a company have a profit but not have cash? / Can you be profitable but losing cash? /Why does profit not equal cash?**

A company's profit is calculated when the total revenue is more than the total expenses. A company can show a profit or positive net income but still not have cash or have negative cash flow due to accounting rules like revenue recognition. This rule means revenue is recorded when it is earned, not necessarily when the cash is received. So, earning revenue doesn't mean the company gets cash right away; the cash might come later. A company might have negative or no cash flow if it has a lot of debt, has invested heavily in its operations, or if customers delay payments.

Yes, a company can be profitable but still lose cash. This can happen because of differences in accounting methods (accrual accounting for profits, cash accounting for cash flow), timing differences between when revenue and expenses are recorded, and investments in working capital that tie up cash in current assets even though the company is generating profits from sales.

Profit is not the same as cash because cash is the money flowing in and out of the company over time, while profit is what's left after subtracting all expenses from revenue. Another reason profit is not equal to cash is that accounting profit is based on accrual accounting, where revenue and expenses are recorded when earned or incurred, not necessarily when cash is received or paid. In contrast, cash accounting records revenue when cash is received and expenses when cash is paid out.

### **Goodwill in luxury firms**

Goodwill can be measured through customer loyalty and satisfaction surveys, providing a clear picture of what customers really think of a brand. Metrics like the Net Promoter Score (NPS) can offer valuable insights into the strength of customer relationships and the brand's reputation among its target audience. High NPS scores typically indicate strong customer loyalty and positive word-of-mouth.

Key attributes to consider when assessing goodwill include brand reputation, customer loyalty, intellectual property (such as Coca Cola's secret recipe or patents), and relationships with suppliers and employees. These elements collectively contribute to a company's overall value and market position.

An example of brand impairment is Balenciaga, which experienced significant backlash due to an inappropriate kids campaign. This incident damaged the brand's reputation and illustrated how negative publicity can quickly erode goodwill, affecting customer perception and loyalty.

## Budget and Forecast

Budgets and forecasts are important tools in accounting and financial management. They help companies plan for the future and predict financial outcomes, but they have different purposes.

A **budget** is a detailed plan for what a business wants to achieve financially. It sets specific targets for income and expenses. A **forecast** is an estimate of what is likely to happen financially, based on current trends and data.

### Differences:

- A budget is compared to actual results to see where the company did better or worse than expected, called variance analysis.
- A forecast is not compared to actual results, so there is no variance analysis.

## Cashflow:

Cash flow is a financial statement that shows the movement of money in and out of a business. It provides information about the money a company receives and spends during a specific time period. This helps people understand how a company handles its cash, how well it generates cash from its main activities, and how it uses cash for investments and financing.

- 13. Operating Cash Flow:** This represents the cash generated or used by the company's core business activities. It includes cash received from customers and cash paid to suppliers, employees, and other operating expenses. In this part, revenue represents cash coming in, and expenses represent cash going out.
- 14. Investing Cash Flow:** This reflects the cash used for and gained from investment activities, such as buying or selling assets like property, equipment, and investments. It includes cash flows from acquiring and disposing of long-term assets.
- 15. Financing Cash Flow:** This shows the cash flow from activities related to financing, such as issuing or repurchasing stock and repaying debts. It includes cash received from issuing stock and loans, as well as cash paid for loan repayments and dividends to shareholders.

The total net cash flow is calculated by adding the net cash flow from operating activities, investing activities, and financing activities.

### **Balance Sheet:**

A balance sheet is always balanced to make sure financial transactions are recorded correctly. It shows the debits and credits for the accounting period. When these balance, it means the information is accurate.

In double-entry accounting, every transaction affects two accounts: one account is debited and the other is credited. This keeps the accounting equation:

ASSETS = LIABILITIES + EQUITY  
in balance.

For example, when goods are sold for cash, it affects two accounts: Cash and Sales.

Cash Account (Asset) increases due to the cash received, and Sales Account (Revenue) is recorded to show the income from sales. This ensures that assets, liabilities, and equity remain balanced.

### **Ejemplo de SCF exercise analysis**

The company reported a net profit of \$702 thousand for 2021 after taxes. However, net profit is just an accounting figure and doesn't equal cash flow. The Statement of Cash Flows adjusts the net profit by considering non-cash transactions and changes in working capital to show real cash inflows and outflows.

Even though the company was profitable in 2021, with a net profit margin of about 25.54% of its total revenue (\$702 thousand out of \$2,750 thousand), the cash flow tells a different story. The operating cash flow was positive but lower than the net profit, meaning some of the profits didn't turn into immediate cash. This might be due to an increase in accounts payable or a decrease in accounts receivable, indicating a timing difference in cash collections and payments.

A significant cash outflow was used for investing in fixed assets, showing that the net profit was reinvested into the company to buy assets expected to generate future benefits. This is common for growing companies but results in less cash available in the short term.

The financing activities show that the company took on more debt, increasing long-term debt. This borrowing provided additional cash, likely used to support the company's growth, such as purchasing fixed assets.

Overall, while the company's net profit is strong, the cash decrease of \$357 thousand from 2020 to 2021 is due to strategic investments in long-term growth, supported by increased debt. This cash decrease isn't necessarily bad; it can be a good investment if the new assets help boost future revenue and efficiency.

**Profit Margin:** The profit margin is a way to measure how much money a company makes compared to its sales. It shows what percentage of sales becomes profit, telling us how well the company is managing its costs. There are different types of profit margins, each giving us a unique look at the company's financial health.

1. **Gross Profit Margin:** This measures how much money is left after subtracting the cost of goods sold (COGS) from total sales. It reflects the efficiency of production or how well a company manages its direct costs related to producing goods. The formula is:

$$\text{Gross Profit Margin} = \left( \frac{\text{Sales} - \text{COGS}}{\text{Sales}} \right) \times 100\%$$

2. **Operating Profit Margin:** This considers both COGS and operating expenses (like rent, salaries, and utilities), showing how much profit a company makes on each dollar of sales after paying for variable costs and day-to-day operations. The formula is:

$$\text{Operating Profit Margin} = \left( \frac{\text{Operating Profit}}{\text{Sales}} \right) \times 100\%$$

where Operating Profit = Sales - COGS - Operating Expenses.

3. **Net Profit Margin:** This is the most comprehensive indicator as it takes into account all types of expenses, including taxes and interest. It shows the percentage of revenue that ultimately becomes net income. The formula is:

$$\text{Net Profit Margin} = \left( \frac{\text{Net Income}}{\text{Sales}} \right) \times 100\%$$

A higher profit margin means that a company is more profitable and keeps more money from each euro it makes in sales. By looking at profit margins over time or comparing them with other companies in the same industry, you can learn how well a company is managed and how strong it is compared to its competitors.

## FORMULAS

- Current Ratio:  $CA / CL$
- Acid-Test Ratio:  $(CA - CA \text{ Low Liquidity}) / CL$
- WC Turnover Ratio:  $Sales \text{ Revenue} / Average \text{ WC}$
  
- Solvency Ratio =  $Total \text{ Assets} / Total \text{ Liabilities}$
- Debt to Equity Ratio =  $Debt / Equity$
  
- Profit Margin =  $Net \text{ Income} / Total \text{ Revenue}$
- ROS =  $EBITDA / Total \text{ Revenue}$
- ROE =  $Net \text{ Income} / Total \text{ Equity}$
- EPS =  $Net \text{ Income} / N^{\circ} \text{ of shares}$
- PER =  $Share \text{ Price} / EPS$
  
- CCC =  $DIO + DSO - DPO$
- DIO =  $(Inventory / COGS) \times 365$
- DSO =  $(Av. \text{ AR} / Credit \text{ sales}) \times 365$
- DPO =  $(Av. \text{ AP} / Credit \text{ purchases}) \times 365$
  
- BEP (Q) =  $FC / (SP - VC_u)$
  
- DOL =  $\% \text{ change GOP} / \% \text{ change Sales}$   
or
- DOL =  $Q(P - VC) / Q(P - VC) - FC$   
or
- DOL =  $(Sales - VC) / Profit$



## **GUIDE FOR THE FINAL EXAM**

### **TEMA 1: Financial Management**

#### **Areas of Finance**

Finance can be divided into three main areas:

**Personal Finance:** Involves managing an individual's money, including budgeting, saving, investing, insurance, and retirement planning.

**Corporate Finance:** Focuses on managing a company's finances to maximize shareholder value. This includes capital investment decisions, funding, and financial risk management.

**Public Finance:** Involves managing government revenue and expenditure. This includes taxation, government budgets, and public debt.

#### **Industry Key Players**

Key players in the finance industry include:

**Banks:** Provide financial services such as loans, deposits, and investment products.

**Investment Firms:** Manage investments on behalf of clients.

**Insurance Companies:** Offer risk management through insurance products.

**Regulatory Bodies:** Oversee and regulate financial markets and institutions (e.g., SEC in the US).

#### **Annual Report**

An annual report is a comprehensive document prepared by a company to describe its operations and financial conditions over the past year. It typically includes:

- Financial statements
- Management's discussion and analysis

- Notes to the financial statements

## **Balance Sheet**

It provides information about a company's financial health, including what it owns (assets) and what it owes (liabilities), as well as the equity of the shareholders. However, it has limitations as it offers a static picture of the company's financial condition at a specific point in time and does not capture dynamic changes. Additionally, it uses historical costs for assets and does not reflect the current market value. Its primary purpose is to provide information about a company's financial health and its ability to meet short-term and long-term obligations. It shows:

- Assets: Resources owned by the company.
- Liabilities: Obligations owed to creditors.
- Equity: The owners' residual interest in the company.

## **Structure:**

- Current Assets: Cash, accounts receivable, inventory, etc.
- Fixed Assets: Property, plant, equipment, etc.
- Current Liabilities: Accounts payable, short-term debt, etc.
- Long-Term Liabilities: Long-term debt, deferred tax liabilities, etc.
- Shareholders' Equity: Common stock, retained earnings, etc.

**Relation with the Income Statement:** The balance sheet complements the income statement by showing the financial position at a point in time, while the income statement shows performance over a period of time.

Examples: As I have done my research while studying for the exam I have learnt that:

- **Hermès:** Hermès, a famous French luxury brand, has a strong financial position. Its balance sheet shows a lot of valuable assets, like high-end products in inventory and plenty of cash. The company also invests in its stores and factories. Hermès has important intangible assets, like its brand name and reputation. The company carefully manages its short-term and long-term debts. Hermès' high equity shows it is profitable and reinvests in its growth.
- **Moncler:** Moncler, an Italian luxury brand known for its down jackets, also has a solid financial standing. Its balance sheet features valuable assets, including a large inventory of luxury clothing and significant cash reserves. Moncler invests in its retail stores and production facilities. The brand holds important intangible assets, such as its well-known name. Moncler manages its short-term and long-term debts prudently. Its high equity indicates good profitability and ongoing investment in the business.

### **Why a Balance Sheet is Always Balanced**

A balance sheet is always balanced because of a simple rule:  $\text{Liabilities} + \text{Equity} = \text{Assets}$ . This means everything a company owns (assets) is paid for either by borrowing money (liabilities) or by money invested by the owners (equity). This rule ensures the balance sheet always balances (value of the company's assets is always matched by the money from loans and owner investments).

### **Income Statement**

An income statement shows a company's performance over a specific period of time, detailing revenue, expenses, and profit or loss:

- Revenue: Total income from goods sold or services provided.
- Expenses: Costs incurred in earning revenue (e.g., cost of goods sold, salaries, utilities).
- Net Income: The profit or loss after all expenses are deducted from revenue.

Structure:

- Sales Revenue
- Cost of Goods Sold (COGS)
- Gross Profit
- Operating Expenses: Salaries, marketing, rent, etc.
- Operating Income
- Net Income: The bottom line, showing the profit or loss.

Examples:

- Hermès: Would show revenue from luxury goods, cost of producing these goods, and resulting profit.
- Moncler: Similar structure, focusing on their high-end products and profitability.

### **Statement of Cash Flows:**

A statement of cash flows provides a summary of the cash inflows and outflows over a period of time which also helps stakeholders understand how the company generates and uses cash, its ability to generate positive future cash flows, and its capacity to pay dividends and meet obligations. Categorized into three main sections:

1. Operating Activities: Cash flows from the core business operations, including receipts from sales and payments for expenses.
2. Investing Activities: Cash flows from buying and selling assets, such as property and equipment.
3. Financing Activities: Cash flows related to borrowing, repaying debt, issuing, and repurchasing stock.

Methods to Prepare:

- Direct Method: Shows actual cash receipts and payments.
- Indirect Method: Starts with net income and adjusts for non-cash transactions and changes in working capital.

Examples:

- Hermès and Moncler: Would include cash generated from sales, investments in new stores or equipment, and financing activities such as issuing shares or paying dividends.

### What are Financial Statements?

Financial statements are written records that show the business activities and financial performance of a company. They are often checked by auditors to ensure accuracy for tax, financing, or investing purposes. The three main financial statements are:

- Balance Sheet: Shows a snapshot of a company's assets, liabilities, and equity at a specific point in time.
- Income Statement: Focuses on a company's revenues and expenses over a period, ending with the net income (profit).
- Cash Flow Statement: Measures how well a company generates cash to pay its debts, fund its operations, and make investments.

**Using Financial Statement Information:** Investors and analysts use financial statements to evaluate a company's financial health and predict its future performance. The annual report, which contains these statements, is a key resource for this analysis.

## Accounting Steps to Prepare Financial Statements

To prepare financial statements, accountants follow these steps:

1. Record Transactions: All financial transactions are recorded in journal entries.
2. Post to Ledger: These journal entries are then posted to the general ledger, where all accounts are summarized.
3. Prepare an Unadjusted Trial Balance: A trial balance is prepared to ensure that total debits equal total credits.
4. Make Adjusting Entries: Adjustments are made for accrued and deferred items to reflect accurate values.
5. Prepare an Adjusted Trial Balance: This ensures all adjustments are accounted for, providing a correct balance.
6. Prepare Financial Statements: Using the adjusted trial balance, the balance sheet, income statement, and cash flow statement are prepared.
7. Close the Books: Temporary accounts (like revenue and expense accounts) are closed to start fresh in the next accounting period.

### Why Profits Do Not Equal Cash Flows:

Profits (net income) do not equal cash flows because profits include things that don't involve actual cash, like depreciation. Also, profits count money earned and expenses incurred even if the cash hasn't been received or paid yet.

A company can have:

- Positive Net Income but Negative Cash Flow: If it has high sales on credit but spends a lot of cash on inventory or capital expenditures.
- Negative Net Income but Positive Cash Flow: If it has high non-cash expenses like depreciation or if it collects a lot of receivables.

## **Budget vs Forecast**

**Budget:** A detailed plan for the future, usually for one fiscal year, showing expected revenues and expenses.

**Forecast:** An estimate of future financial outcomes based on current trends and data.

- Differences between Budget and forecast: A budget is usually set and detailed, used to measure how well things are going. A forecast is more flexible and gets updated often to show what is actually happening and any changes.

## **Goodwill from a Financial Perspective**

Goodwill is the extra amount paid when buying a company, over the fair value of its identifiable assets. It includes things you can't touch, like brand reputation, customer relationships, and intellectual property. Goodwill is listed as an asset on the balance sheet and is checked every year to see if its value has decreased.

## TEMA 2: Financial Statement Analysis of a Luxury Firm

### Cash Flow Statement Preparation from Two Consecutive Balance Sheets (BS) and Income Statements (IS):

To prepare a cash flow statement using two consecutive balance sheets and income statements, we need to follow these steps:

To prepare a cash flow statement, we should start by finding the net income from the income statement, which represents the company's profit for the period. Next, adjust for non-cash expenses like depreciation and amortization by adding them back to the net income. These expenses reduce reported profits but do not involve actual cash outflows. Finally, account for changes in working capital by examining changes in current assets and liabilities. For example, if inventory levels increase, it means cash has been used to purchase more inventory, so this amount should be subtracted. Conversely, if accounts receivable (money owed by customers) decrease, it indicates that cash has been collected, so this amount should be added. Similarly, changes in money owed to suppliers are also considered; an increase in payables means the company has delayed payments, effectively preserving cash, so this amount should be added.

Example: If Hermès had a net income of 100€ million, depreciation of 10€ million, and a decrease in inventory of 5€ million, the initial operating cash flow would be €115 million.

### Cash Flow Vertical Analysis

Vertical analysis involves comparing each line item in the cash flow statement as a percentage of a base figure, such as total cash inflows or outflows. This helps understand the relative size of each item in the context of overall cash movements.

Example: If total cash inflows are 1,000€ million and cash used for operations is 600€ million, then cash used for operations is 60% of total cash inflows.



## **Income Statement Vertical and Horizontal Analysis**

### 1. Vertical Analysis:

- Compare each line item in the income statement as a percentage of total sales.
- Example: If total sales are 1,000€ million and marketing expenses are 100€ million, marketing expenses are 10% of total sales.

### 2. Horizontal Analysis:

- Compare financial data over multiple periods to identify trends.
- Example: If Hermès' revenue increased from €900 million to €1,000 million from one year to the next, that's an 11.1% increase.

## **Balance Sheet Vertical and Horizontal Analysis**

### 1. Vertical Analysis:

- Compare each line item in the balance sheet as a percentage of total assets.
- Example: If total assets are €2,000 million and inventory is €400 million, then inventory is 20% of total assets.

### 2. Horizontal Analysis:

- Compare financial data over multiple periods to identify trends.
- Example: If Hermès' total assets increased from €1,800 million to €2,000 million from one year to the next, that's an 11.1% increase.

## **Revenue Analysis Using the Variance Matrix**

Revenue analysis involves examining the differences between actual and expected revenues using a variance matrix. This matrix can show which products or regions performed better or worse than expected. For example: If expected revenue was 1,000€ million but actual revenue was 1,050€ million, the variance is +50€ million, indicating better than expected performance.

## **Importance of Cash Flow over Profits (from Cashflow article.pdf)**

Cash flow gives a better understanding of a company's financial health compared to profits. This is because profits can include non-cash items like depreciation, which lower profits but don't involve actual cash leaving the company. Cash flow statements show the real cash the company has available for running the business, making investments, and paying off debts. This is important because a company can show profits on paper but still have financial problems if it doesn't have enough cash to pay for things like supplies, rent, or salaries. So, having a good cash flow is essential for a company's day to day survival and long term success.

## **TEMA 3: RATIO ANALYSIS**

### **Liquidity Ratios**

Liquidity ratios measure a company's ability to meet its short-term obligations using its most liquid assets. Here are the key liquidity ratios:

1. **Current Ratio:** This ratio measures a company's ability to pay off its short-term liabilities with its short-term assets. It is calculated as:

$$CR=CA/CL$$

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

Example: If a company has current assets of €338,000 and current liabilities of €214,000, the current ratio would be 1.58. This means the company has €1.58 in current assets for every €1 of current liabilities, indicating a cushion of €0.58 for every dollar of current debt.

2. **Acid-Test Ratio:** Also known as the quick ratio, this measures a company's ability to pay off its short-term liabilities without relying on the sale of inventory. It is calculated as:

$$\text{ATR} = (\text{CA} - \text{Inventory}) / \text{CL}$$

$$\text{Acid-Test Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

Example: If the company has current assets of €338,000, inventory of €15,000, and current liabilities of €214,000, the acid-test ratio would be 1.44. This indicates the company can cover its current liabilities 1.44 times over without selling inventory.

3. **Working Capital Turnover Ratio:** This ratio measures how efficiently a company uses its working capital to generate sales. It is calculated as:

$$\text{WCR} = \text{Sales Revenue} / \text{Average WC}$$

$$\text{Working Capital Turnover Ratio} = \frac{\text{Sales Revenue}}{\text{Average Working Capital}}$$

Example: If the company's sales revenue is €1,352,000 and its average working capital is €762,000 (calculated as current assets minus current liabilities), the working capital turnover ratio would be 1.77. This means the working capital was used 1.77 times during the year.

## Solvency Ratios

Solvency ratios assess a company's ability to meet its long-term obligations and its financial leverage.

1. **Solvency Ratio:** This ratio evaluates a company's ability to meet its long-term debt obligations. It is calculated as:

$$SR=TA/TL$$

$$\text{Solvency Ratio} = \frac{\text{Total Assets}}{\text{Total Liabilities}}$$

Example: If a company has total assets of €1,176,300 and total liabilities of €659,000, the solvency ratio would be 1.78. This means the company has €1.78 in assets for every €1 of liabilities, providing a cushion for debt repayment.

2. **Debt to Equity Ratio:** This ratio measures financial leverage by comparing total debt to shareholders' equity. It is calculated as:

$$\text{Debt to Equity Ratio}=\text{Total Debt}/\text{Total Equity}$$

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Example: If a company has total debt of €659,000 and total equity of €517,300, the debt to equity ratio would be 1.27. This indicates the company owes €1.27 for every €1 of equity.

## Profitability Ratios

Profitability ratios measure a company's ability to generate profit relative to its revenue, equity, or assets.

1. Profit Margin: Indicates how much profit is generated from revenue. It is calculated as:

$$PM = \text{Net income} / \text{Total revenue}$$

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

Example: If the net income is €120,000 and total revenue is €1,000,000, the profit margin would be 12%, indicating that 12% of the revenue is profit.

2. **Return on Sales (ROS):** Measures operational efficiency by looking at EBITDA as a percentage of revenue. It is calculated as:

$$RoS = \text{EBITDA} / \text{total revenue}$$

$$\text{Return on Sales} = \frac{\text{EBITDA}}{\text{Total Revenue}}$$

Example: If EBITDA is €200,000 and total revenue is €1,000,000, ROS would be 20%, showing that 20% of the revenue is operational profit.

3. Return on Equity (ROE): Measures profitability relative to shareholders' equity. It is calculated as:

$$\text{Return on equity} = \text{Net income} / \text{total equity}$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Total Equity}}$$

Example: If net income is €120,000 and total equity is €1,000,000, ROE would be 12%, indicating the company generates 12% profit from its equity.

4. Earnings Per Share (EPS): Indicates profitability on a per-share basis. It is calculated as:

Earnings per share= Net income/number of shares

$$\text{Earnings Per Share} = \frac{\text{Net Income}}{\text{Number of Shares}}$$

Example: If net income is €120,000 and there are 10,000 shares, EPS would be €12, showing that each share earned €12.

### Price to Earnings Ratio (PER)

The PER compares a company's share price to its earnings per share, indicating how much investors are willing to pay per dollar of earnings. It is calculated as:

Price to earning ratio=Share Price/Earning per share

$$\text{Price to Earnings Ratio} = \frac{\text{Share Price}}{\text{Earnings Per Share}}$$

Example: If the share price is €120 and the EPS is €12, the PER would be 10, meaning investors are willing to pay €10 for every €1 of earnings.

### TEMA 5: OPERATIONAL LEVERAGE

**Operating Leverage (OL):** Operating leverage measures how a company's operating income (profit) changes with sales volume. When a company has high operating leverage, a small change in sales can lead to a large change in operating income because the company has high fixed costs.

#### Key Terms:

1. Fixed Costs (FC): Costs that do not change with the level of production, such as rent, salaries, and insurance.
2. Variable Costs (VC): Costs that vary directly with the level of production, such as raw materials and direct labor.
3. Total Costs (TC): The sum of fixed and variable costs.
4. Total Revenue (TR): The total income from sales.

5. Contribution Margin (CM): Sales revenue minus variable costs. It shows how much money is available to cover fixed costs and generate profit.
6. Break-Even Point (BEP): The sales volume at which total revenue equals total costs, meaning there is no profit or loss. It is calculated as:

$$\text{BEP} = \frac{\text{Fixed Costs}}{\text{Selling Price per Unit} - \text{Variable Cost per Unit}}$$

- Example of Break-Even Point Calculation: For Cheryl's Posters, if the fixed operating costs are 2,500 euros, the sale price per poster is 10 euros, and the variable cost per poster is 5 euros, the break-even point in units is calculated as:

$$\text{BEP} = \frac{2500}{10 - 5} = 500 \text{ units}$$

This means Cheryl's Posters needs to sell 500 posters to cover all its costs.

**Degree of Operating Leverage (DOL):** The Degree of Operating Leverage measures how sensitive a company's operating income is to changes in sales volume. It shows the percentage change in operating income for a given percentage change in sales. Here are the formulas for DOL:

1. Percentage Change Formula:

$$\text{DOL} = \frac{\% \text{change in Operating Income}}{\% \text{change in Sales}}$$

2. Basic Formula Using Contribution Margin:

$$\text{DOL} = \frac{Q(P - VC)}{Q(P - VC) - FC}$$

Where  $Q$  is the quantity of units sold,  $P$  is the selling price per unit,  $VC$  is the variable cost per unit, and  $FC$  is the fixed cost.

3. Simplified Formula:

$$\text{DOL} = \frac{\text{Sales} - \text{Variable Costs}}{\text{Operating Income}}$$

- **Example of DOL Calculation:**

Using the data for Cheryl's Posters:

- Sale price per unit (P) = 10 euros
- Variable cost per unit (VC) = 5 euros
- Fixed costs (FC) = 2.500 euros

If sales increase from 1.000 to 1.500 units, the EBIT (Earnings Before Interest and Taxes) increases from 2.500 euros to 5.000 euros. This means a 50% increase in sales (from 1.000 to 1.500 units) results in a 100% increase in EBIT (from 2.500 euros to 5.000 euros). Thus, the DOL is calculated as:

$$\text{DOL} = \frac{\% \text{change in EBIT}}{\% \text{change in Sales}} = \frac{100\%}{50\%} = 2$$

This indicates that for every 1% change in sales, the operating income changes by 2%.

**Impact of Fixed and Variable Costs on Operating Leverage:** High fixed costs lead to high operating leverage, meaning profits are more sensitive to changes in sales. Conversely, higher variable costs result in lower operating leverage. For example, if Cheryl's Posters increases its fixed costs to \$3,000 and reduces variable costs to \$4.50 per unit, the company will have higher operating leverage, making its profits more sensitive to sales changes.

- **Practical Example of High and Low Operating Leverage:**

1. **High Operating Leverage:** A company with high fixed costs, such as a manufacturing plant, where most costs are fixed regardless of production levels.
2. **Low Operating Leverage:** A service company with high variable costs, such as a consulting firm, where costs vary directly with the number of clients served.