

# IO3 – S7

## FINANCE



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# INTRODUCTION TO FINANCE

**Objective:** Identify some important financial indicators to know how to interpret the financial needs of a company.

## Key concepts:

Debit & Credit

Balance.

Profit & Loss

Solvency.

Financial business indicators



# INTRODUCTION TO FINANCE

Debit: What is owed to no one.

Credit: What is largely due to third parties.



	Debit	Credit
Assets	Increase	Decrease
Liabilities	Decrease	Increase
Revenue	Decrease	Increase
Expenses	Increase	Decrease
Equity	Decrease	Increase
Drawings	Increase	Decrease

# BALANCE

The balance is the set of assets, rights, debts or obligations

Properties of a company + rights against third parties (all what they owe us)

Balance Sheet	
Assets (Property)	Liabilities & Equity (Capital)
Fixed Assets	Equity
	Long Term Liabilities (Loans)
Current Assets	Current Liabilities

What we owe to third parties + Own funds (assets – debts)

Both sides must add up the same



# BALANCE

<b>Asset</b>	<b>Liability</b>	<b>Equity</b>
Valuables that the company owns	Debts and obligations the company owes	Value left with the company after liabilities are subtracted from the assets.
The amount of asset determines the size of the company	Considered as a burden until the debt is repaid	Aggregate difference between asset and liability
The more, the better, but only when without liabilities	Invites penalties if not repaid on time	Net residual ownership of the business owner

# BALANCE



## Assets

Any liquid or non-liquid asset such as:

- Cash
- Bills
- Accounts receivable
- Inventory
- Property
- Equipment



## Liabilities

Financial obligations such as:

- Accounts payable
- Wages
- Rent
- Utilities
- Bank debt
- Deferred tax liability
- Long-term debt



## Equity

What's left after subtracting liabilities from assets:

- Common stock
- Owner draws
- Retained earnings

# BALANCE



# PROFIT AND LOSS

A profit and loss statement provides you information regarding both revenues and expenses for your business.

1. Calculate revenue
2. Calculate cost of goods sold
3. Subtract cost of goods sold from revenue to determine gross profit
4. Calculate operating expenses
5. Subtract operating expenses from gross profit to obtain operating profit
6. Add additional income to your operating profit

$$\text{EBITDA} = \text{Operating Profit} + (\text{Interest Income} + \text{Dividends Earned})$$

7. Calculate interest, taxes, depreciation and amortization
8. Subtract interest, taxes, depreciation, and amortization expenses from EBITDA to obtain net profit

$$\text{Net Profit/Loss} = \text{EBITDA} - (\text{Interest} + \text{Taxes} + \text{Depreciation})$$





# PROFIT AND LOSS

## Practical exercise:

- Create a P&L statement (take a look at the example). Consider the following tips:
- Imagine you have created a business company
- Estimate annual sales
- Estimate cost of goods sold
- Estimate operating expenses (salaries, rent, utilities, ...)
- Estimate taxes
- Obtain Net Income

## Profit and loss of company XYX

Total revenue	\$100,000
Cost of goods sold	\$20,000
Gross profit	\$80,000

## Operating expenses

Salaries	\$10,000
Rent	\$10,000
Utilities	\$5,000
Depreciation	\$5,000

Total operating expenses	\$30,000
Operating profit	\$50,000
Interest expense	\$10,000

Income before taxes	\$40,000
Taxes	\$10,000

Net income	<b>\$30,000</b>
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# PROFIT AND LOSS

Analysis: A P&L statement lets you know how your business is doing

1. Whether your products or services are profitable
2. Whether your business is trending in the right direction
3. How healthy your business is overall



# SOLVENCY

SOLVENCY: relationship between the total assets of an entity and the total of liabilities. This relationship represents for each euro of liabilities how many resources account to cope.

WARRANTY PAYMENT: "Does the debtor have anything to answer for?"  
Seems solvent the customer who has assets to respond to a debt.



PUNCTUALITY OF PAYMENT: In the financial area, concern about the customer collection is a PRIORITY

Do not confuse the fact that a client has sufficient equity to pay his debts with when this payment is made effective



# FINANCIAL BUSINESS INDICATORS

ACID TEST RATIO : This ratio allows us to assess the ratio of customer debt and cash to short-term debt.

$$\text{Acid Test Ratio Formula} = \frac{\text{Cash} + \text{Cash Equivalents} + \text{Marketable Securities} + \text{Current Accounts Receivables}}{\text{Total Current Liabilities}}$$




- It is usual to oscillate between 0.4 and 0.5.
- The ratios greater than 0.7 are high and those less than 0.2 too low to offer liquid guarantees to the creditor.

# SOLVENCY

CASH FLOW: is the amount of money coming in and going out of a business.



Net Cash  
Flow Formula = Total Cash Inflows - Total Cash Outflows



Investors and creditors look at a company's cash flow to determine if it can pay its short-term debts

# SOLVENCY

**ASSET TURNOVER RATIO** : tells you the value that your company gets relative to the amount invested in total assets, not just your fixed assets. It measures the returns originated by the assets that an entity obtains in a period.


$$\text{Fixed Asset Turnover Ratio Formula} = \frac{\text{Net Sales}}{\text{Average Net Fixed Assets}}$$




Net fixed assets includes cash, receivables, inventory, property, plant and equipment as well as other long-term assets.

# SOLVENCY

EBITDA: is a useful metric for understanding a business's ability to generate cash flow for its owners and for judging a company's operating performance.






EBITDA is often most useful for comparing two similar businesses or trying to determine a company's cash flow potential.





# SOLVENCY

ROA: tells you the overall level of effectiveness, from earning profits to fixed assets.

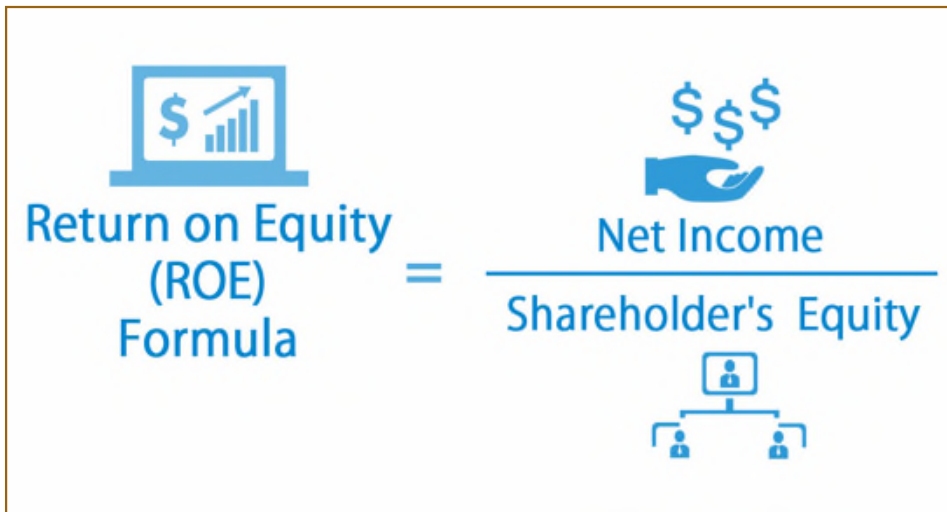

$$\text{ROA} = \frac{\text{EBIT}}{\text{Average Total Assets}}$$


ROA is very important to measure effectively the use of assets to generate capital



# SOLVENCY

ROE: It measures the return obtained by the shareholders of the funds that have been invested in the company.



The diagram illustrates the Return on Equity (ROE) formula. On the left, a laptop icon displays a bar chart with an upward arrow and a dollar sign. Below it, the text reads "Return on Equity (ROE) Formula". In the center is an equals sign. To the right of the equals sign is a fraction. The numerator is "Net Income", accompanied by an icon of a hand holding three dollar signs. The denominator is "Shareholder's Equity", accompanied by an icon of a person at the top of a hierarchy with two subordinates below.

$$\text{Return on Equity (ROE) Formula} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

1. Investors can see if they're getting a good return on their money
2. A company can evaluate how efficiently they're utilizing the firm's equity

ROE represents the total return on equity capital and shows the firm's ability to turn equity investments into profit.



# THANKS

# GLOSSARY OF TERMS

Open innovation: is a new business innovation strategy that takes the concept of innovation beyond the internal boundaries of the organisation itself, so that cooperation with external professionals plays a key role in the organisation's innovation strategy. It means combining internal knowledge with external knowledge to drive research and development projects forward. It also means that companies use both internal and external channels to bring their innovative products and technologies to the market. In this context, universities and research centres offer new perspectives and solutions to companies using this model. Open innovation fosters cost reduction in innovation processes. Most notably in the idea generation phase, but also in the development phase and its exit from the organisation. It also increases creativity in the organisation. The generation phase of new ideas is more diverse than the one that develops solely promoted from within the R&D departments; and it allows the creation of an innovation ecosystem beyond the creation of alliances for collaboration.

Fixed assets: is a long-term tangible piece of property or equipment that a firm owns and uses in its operations to generate income. The general assumption about fixed assets is that they are expected to last, be consumed, or be converted into cash after at least one year. As such, companies can depreciate the value of these assets to account for natural wear and tear. Fixed assets most commonly appear on the balance sheet as property, plant, and equipment (PP&E). Fixed assets lose value as they age. Because they provide long-term income, these assets are expensed differently than other items. Tangible assets are subject to periodic depreciation while intangible assets are subject to amortization. Fixed assets can include buildings, computer equipment, software, furniture, land, machinery, and vehicles.



# GLOSSARY OF TERMS

**Current assets:** Current assets are assets that can be converted into cash within one fiscal year or one operating cycle. Current assets are used to facilitate day-to-day operational expenses and investments. As a result, short-term assets are liquid, meaning they can be readily converted into cash. Examples of current assets include: Cash and cash equivalents, which might consist of certificates of deposit; marketable securities, such as equity or debt securities; accounts receivable, or money owed to the company for selling their products and services to their customers; inventory; or prepaid expenses.

**Drawing:** in accounting, refers to the action of taking funds from an account or company holdings for individual use. Business owners typically use drawing accounts when they are a part of a sole proprietorship or partnership. Drawing can also include items that are removed from a business for personal use. It is important to remember that drawings are different from business expenses such as regular overhead or repairs. These kinds of expenses are accounted for in a different way.

**Amortisation:** The term “amortization” refers to two situations. First, amortization is used in the process of paying off debt through regular principal and interest payments over time. An amortization schedule is used to reduce the current balance on a loan—for example, a mortgage or a car loan—through installment payments. Second, amortization can also refer to the practice of spreading out capital expenses related to intangible assets over a specific duration—usually over the asset's useful life—for accounting and tax purposes.