

Accounting I



OPERATING ACTIVITIES

ACCOUNTS RECEIVABLE AND PAYABLE




DESDE 1911

Accounts receivable and Payable




- Trade accounts receivable
 - ✦ Clients
- Trade Accounts Payable
 - ✦ Suppliers
- Staff
- Public Entities
- Loans (Obtained)
- Other accounts receivable and Payable

 **Trade accounts Receivable - Clients**

•Rule: Value to receive;


•In some clients have financial troubles and may not pay the debt, the company should evaluate the possibility to receive all the money and if it is necessary to recognize a loss called impairment:

$$\text{Impairments} = \text{Book value in clients} - \text{Best estimate regarding the time and amount to receive}$$

 **Staff**

It includes all related to

- Salaries to pay
- Advanced payments to staff
- Other operations;
- Losses by impairments in rights from accounts receivable from staff



Staff

1st Step


- Processing of wages, salaries and other elements for the month

2nd Step

- Processing the social charges (employer's to pay) for the month;


3rd Step

- Payment to staff and other entities



Staff


	Debit	Credit
Salaries to pay:		
Gross Value	Staff Expenses - Salaries	
Retained Tax- Income Tax (IRS)		State and Other Public Entities - Retained Income Tax
Retained Tax - Social Security (TSU)		State and Other Public Entities - Social Security
Other discounts		Other Accounts To Receive and To Pay - Other debtors and creditors
Net Value		Staff - Salaries to Pay - Board/Staff
1st Stage		
Taxes paid by the employer (SS)	Staff Expenses - Taxes supported by The employer	State and Other Public Entities - Social Security
2nd Stage		
Payment	Staff - Salaries to pay - Board/Staff State and Other Public Entities - Retained Income Tax State and Other Public Entities - Social Security (employee and employer taxes) Other Accounts To Receive and To Pay - Other debtors and creditors	Banks/Checking Account - Bank X
3rd Stage		



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Accruals & Deferrals (Pre-paid) Of Revenues and Expenses




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Accrual Basis

The **accrual basis** recognizes the impact of transactions in the financial statements for the time periods when revenues and expenses occur
Accountants record revenue as a company earns it, and they record expenses as the company incurs them




Accrual Basis

- **Accrue** means to accumulate a receivable (asset) or payable (liability) during a given period even though no explicit transaction occurs
 - Accrual of unrecorded expenses
 - Accrual of unrecorded revenues



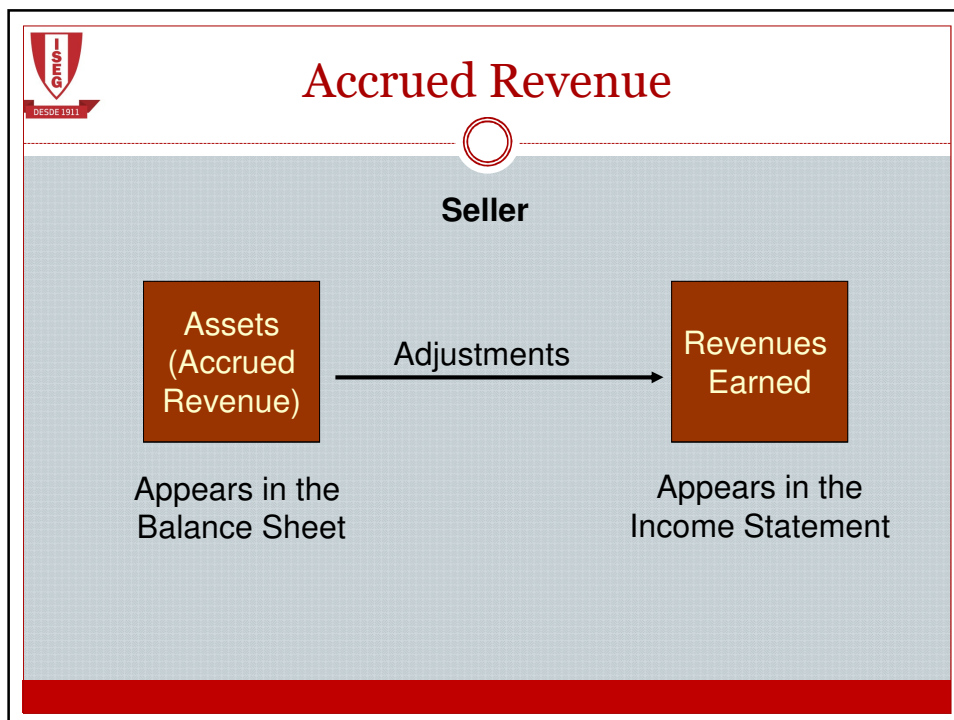
Accrual of Unrecorded Expenses and Revenues


- Some liabilities (and expenses) grow moment to moment with the passage of time. Examples include: Wages, Interest, Income taxes, Rents.
- Adjustments are made to bring each accrued expense (and corresponding liability) account up to date at the end of the period before preparation of the financial statements
- Adjustments are necessary to accurately match the expense to the period
- Similar examples can be given for revenues with a symmetric booking (accrued revenues)



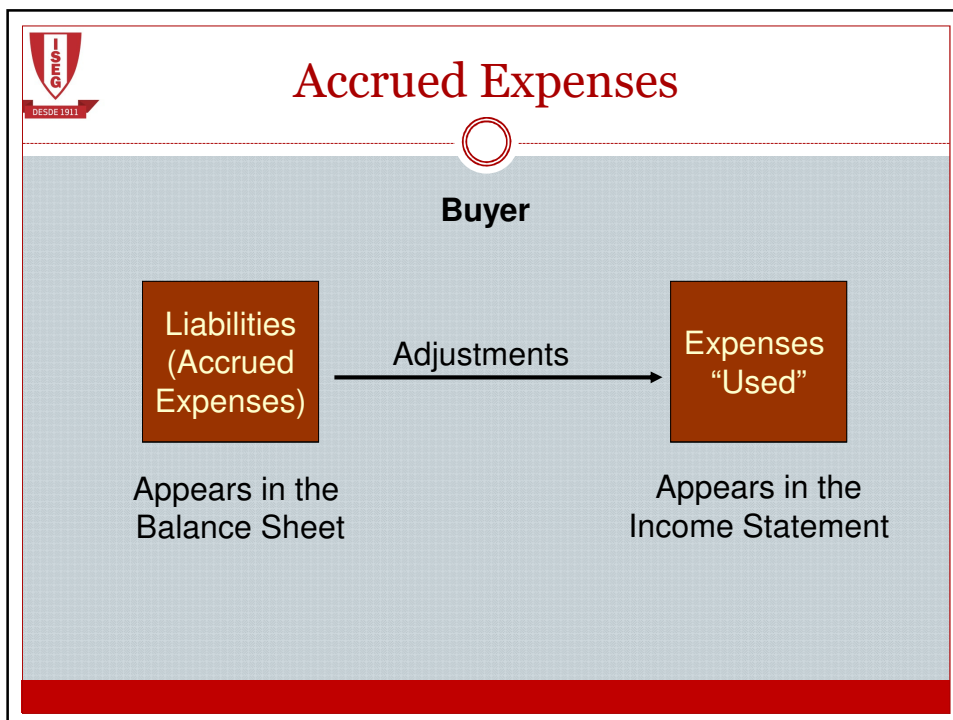
Accrued Revenue


- The revenue is recognized (earned) when the owner makes the adjusting entry (a) at time 0
- The asset Accrued Revenue is increased (debited), the stockholders' equity account Revenue – Rent is increased (credited)
- Failure to record the adjusting entry understates revenues and assets



 **Accrued Expenses**

- The expense is recognized (use of the warehouse) when the owner makes the adjusting entry (a) at time 0
- The liabilities Accrued Expenses is increased (credited), the stockholders' equity account Expenses – Rent is increased (debited)
- Failure to record the adjusting entry understates expenses and liabilities






Deferrals (Pre-paid)

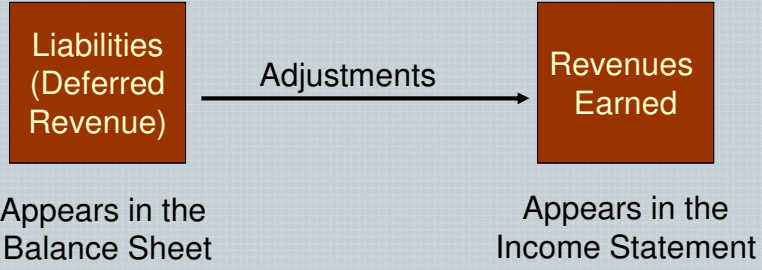
Deferrals (Pre-paid)

- Receipt/Payment of the fact sheet occurs but the revenue/expense refers to the following accounting period(s)



Earning of Revenues Received in Advance


Seller



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graph LR; A[Liabilities (Deferred Revenue)] -- Adjustments --> B[Revenues Earned];
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Liabilities (Deferred Revenue) → Adjustments → Revenues Earned


Appears in the Balance Sheet Appears in the Income Statement



Earning of Revenues Received in Advance

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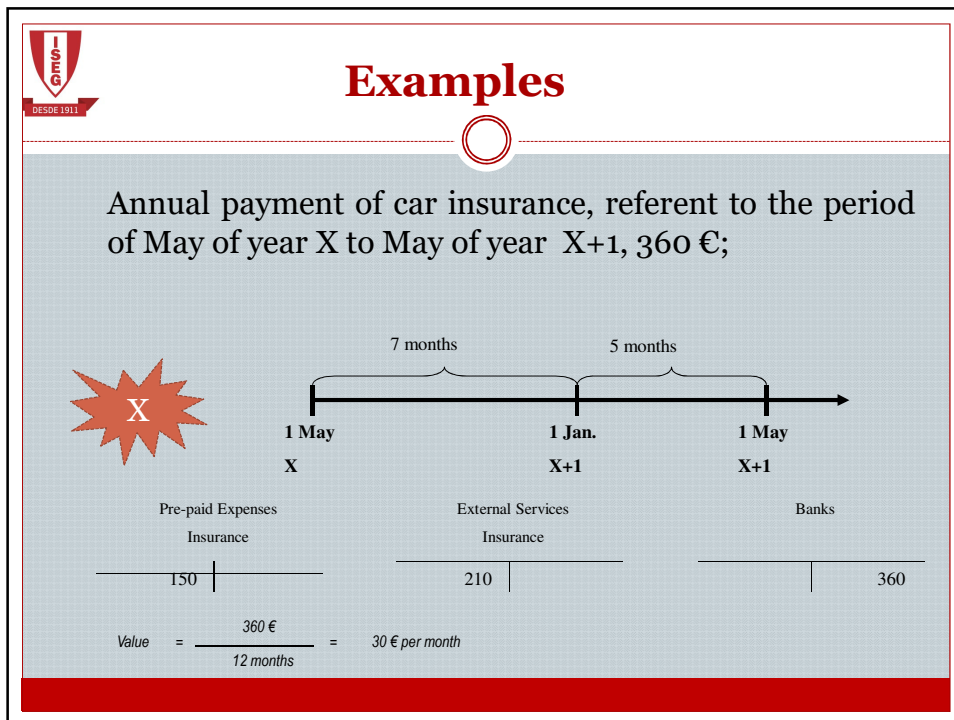
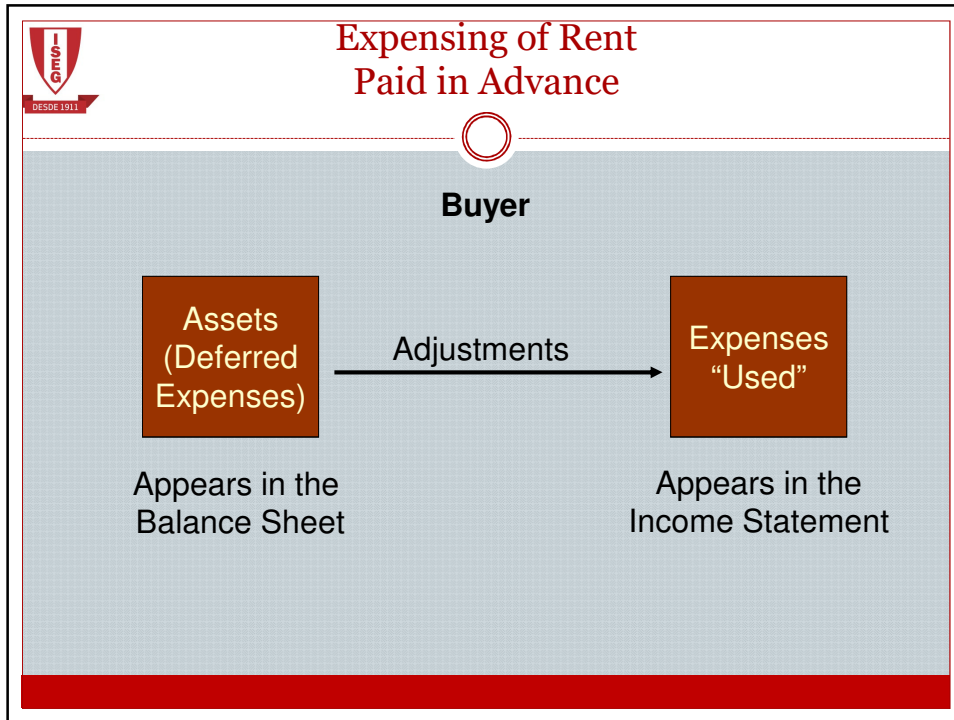
- The revenue is recognized (earned) only when the owner makes the adjusting entries in transaction (b)
- The liability Deferred Revenue (pre-paid) is decreased (debited), the stockholders' equity account Revenue – Rent is increased (credited)
- Failure to record the adjusting entry overstates liabilities and understates revenues




Expensing of Rent Paid in Advance

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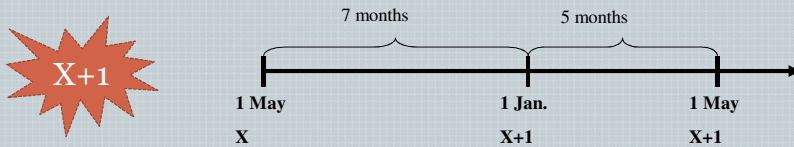
- The expense is recognized only when the adjusting entry is made
- The asset Deferred Expense (pre-paid) is decreased (credited), while the stockholders' equity account Expense – Rent is increased (debited)
- Failure to record the adjusting entry overstates assets and understates expenses






Examples

Annual payment of car insurance, referent to the period of May of year X to May of year X+1, 360 €;



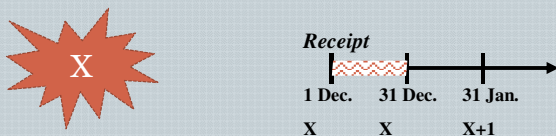
Pre-paid Expenses	
Insurance	150
Value	= $\frac{360 \text{ €}}{12 \text{ months}}$ = 30 € per month

External Services	
Insurance	150




Examples

Receipt of December shop Rent, 500 €




Pre-received Revenues	
Rent	500

Banks	
500	

 **Examples**


Receipt of December shop Rent, 500 €

 **X+1**


Revenue

1 Dez.	31 Dez.	31 Jan.
X	X	X+1

Pre-received Revenues	Other revenues
Rent	
500	500

 **Examples**


Estimative of December electricity bill for year X, 100 €.

 **X**

Expense

1 Dec.	31 Dec.	31 Jan.
X	X	X+1


Other accounts receivable and payable Creditors for accrued expenses	External Services Electricity
100	100



Examples

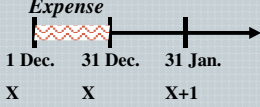
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Estimative of December electricity bill for year X, 100 €.




X+1

Expense



1 Dec. X 31 Dec. X 31 Jan. X+1


<p>Other accounts receivable and payable Creditors for accrued expenses</p> <hr style="width: 100%;"/> <p style="text-align: right;">100</p>	<p style="text-align: right;">Banks</p> <hr style="width: 100%;"/> <p style="text-align: left;">100</p>
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Examples

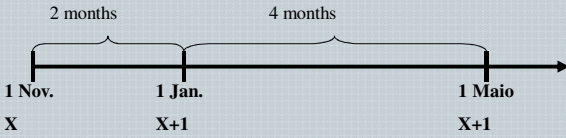
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Interests from term deposit, 60 €, from the period of November of year X to April of year X+1.



X

2 months 4 months



1 Nov. X 1 Jan. X+1 1 Maio X+1

<p>Financial Revenues Obtained interests</p> <hr style="width: 100%;"/> <p style="text-align: right;">20</p>	<p>Other accounts receivable and payable Debtors for accrued revenues</p> <hr style="width: 100%;"/> <p style="text-align: left;">20</p>
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$$\text{Value} = \frac{60 \text{ €}}{6 \text{ months}} = 10 \text{ € per month}$$

Examples


Interests from term deposit, 60 €, from the period of November of year X to April of year X+1.

Account	1 Nov. X	1 Jan. X+1	1 Maio X+1
Financial Revenues Obtained interests	40	60	
Banks			
Other accounts receivable and payable Debtirs for accrued revenues			20

Value = $\frac{60 \text{ €}}{6 \text{ month}} = 10 \text{ € per month}$

Accounting I

INVESTMENT ACTIVITIES
FIXED TANGIBLE ASSETS
INTANGIBLE ASSETS



INVESTMENTS

Assets controlled by the company that are not aimed to be sold or transformed during the operating cycle of the entity. These assets can be owned by the company or used through a lease.




Investments

- Fixed Tangible Assets
- Intangible Assets
- Property Investments
- Investments in financials instruments
- Non currents assets for sale




Fixed Tangible Assets

- Long-lived assets are divided into tangible and intangible categories
- **Tangible assets** are physical items that you can see and touch
- Used to support the activity of the firm
 - Land
 - Natural resources
 - Buildings
 - Equipment
- It does **not include** financial investments



Fixed Tangible Assets Measurement and Recognition

- Acquisition Cost
- Directly costs attributable to bringing the asset to the location and desired condition
- Initial estimation of dismantling and removing costs




Fixed Tangible Assets Measurement and Recognition

Cost Model

- Acquisition cost -
Accumulated depreciation –
accumulated impairments

Revaluation Model

- Fair value (the changes are recognized in Owners Equity)



Fixed Tangible Assets – 1st recognition

- The acquisition cost of long-lived assets is the cash-equivalent purchase price
 - Includes incidental costs to complete the purchase, transport the asset, and prepare it for use
- The acquisition cost of land includes
 - The purchase price
 - The cost of land surveys
 - Legal fees
 - Title fees and transfer taxes
 - Demolition costs of old structures




Acquisition Cost of Tangible Assets

- Under historical-cost accounting, companies report land in the balance sheet at its original cost
- The acquisition cost of buildings, plant, and equipment includes all costs of acquisition and preparation for use
 - Sales tax
 - Transportation
 - Installation
 - Repair cost prior to use



Intangible Assets

- **Intangible assets** are not physical in nature, consisting of contractual or legal rights or economic benefits
 - Patents
 - Trademarks
 - Copyrights
- Land is reported at its historical cost in the financial records and is not depreciated




Examples of Intangible Assets

- **Patents** are grants by the federal government to the inventor of a product or process, bestowing the exclusive right to produce and sell a given product , or use a process for up to 20 years
- **Copyrights** are exclusive rights to reproduce and sell a book, musical composition, film, or similar creative item for the life of the creator plus 70 years
- **Trademarks** are distinctive identifications of a manufactured product or a service, taking the form of a name, sign, slogan, logo, or emblem




Examples of Intangible Assets

- **Franchises and licenses** are legal contracts that grant the buyer the right to sell a product or service in accordance with specified conditions
- A **leasehold** is the right to use a fixed asset for a specified period of time beyond one year
- **Leasehold improvements** occur when a lessee spends money to improve leased property
 - Improvements become a part of the leased property
 - Leasehold improvements are classified as fixed assets



Non-current Assets


- Long-lived assets wear out or become obsolete
- The costs of these assets are allocated over their useful life
 - **Depreciation** is the allocation of the cost of buildings, machinery, and equipment
 - **Amortization** is the allocation of the cost of intangible assets
 - **(Depletion** is the allocation of the cost of natural resources) – Not used in Portugal!!



Intangible Assets Measurement and Recognition

Purchase price

Directly costs attributable to bringing the asset to the location and desired condition

 **Intangible Assets**
Measurement and Recognition


Cost Model

- Acquisition cost - Accumulated amortizations (if the useful life is limited)- accumulated impairments

Revaluation Model

- Fair value (the changes are recognized in Owners Equity)

Only if there is na active market

 **Contrasting Long-lived Asset Expenditures with Expenses**

- All purchases of goods or services are called **expenditures**
- Companies **capitalize** expenditures for assets that benefit more than the current accounting year
- The purchase price is added to an asset account rather than expensing it immediately
- The cost of repairs and parts are charged to expense rather than to an asset account
- Decisions about whether to expense or capitalize expenditures require judgment
- This is an area that management may inappropriately influence to increase reported net income


Accounting I

INVESTMENT ACTIVITIES
DEPRECIATIONS AND
AMORTIZATIONS
FINANCIAL INVESTMENTS
FINANCIAL INSTRUMENTS



DEPRECIATIONS AND AMORTIZATIONS


Depreciation/Amortization of an asset – tangible or intangible – is the recognition of its depreciation due to the use of the asset



DEPRECIATIONS AND AMORTIZATIONS

The depreciation value can be calculated as a function of:

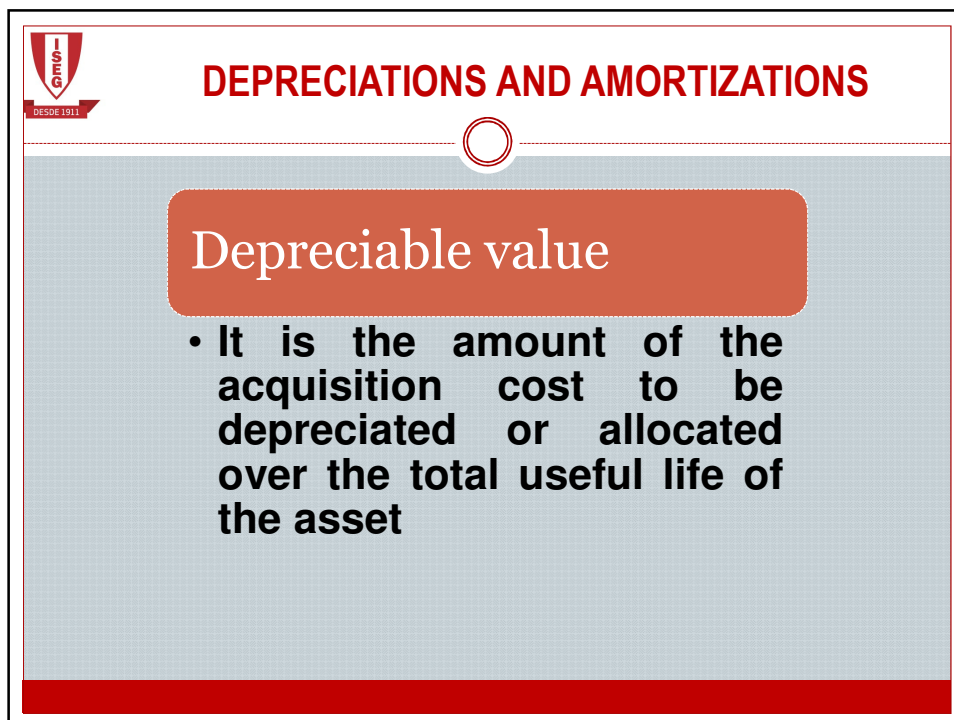
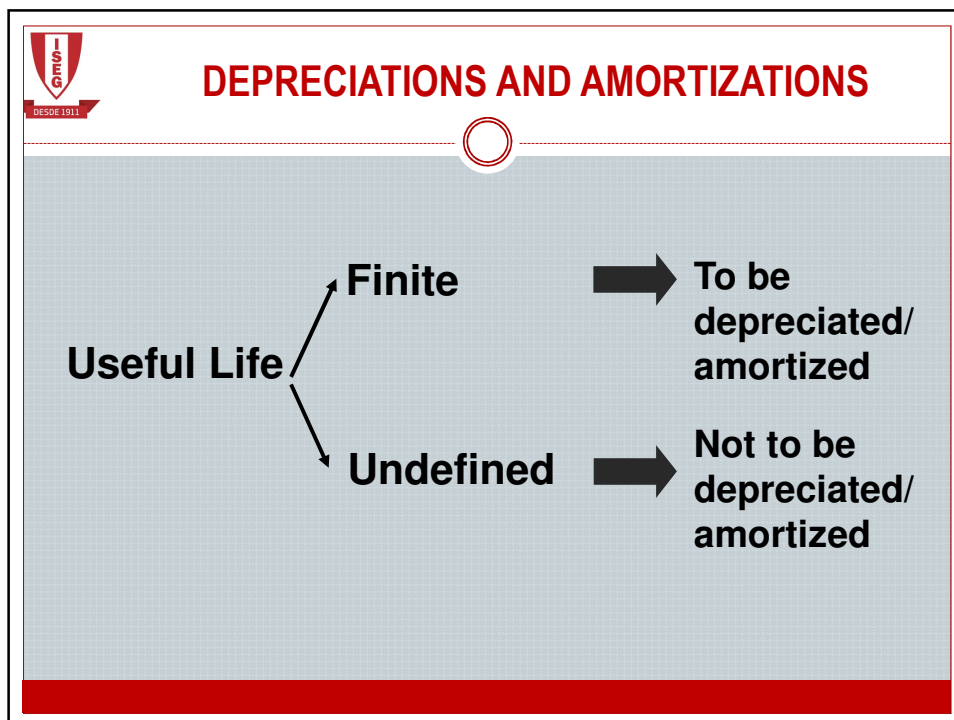
- The estimated time of its useful life; or
- The activity/usage planned for the asset (measured in total units that it is planned that the asset produces during all of its useful life – kms, hours of usage or other any variable).




DEPRECIATIONS AND AMORTIZATIONS

Useful Life

- of an asset is the shorter of the physical life of the asset (before it wears out) or the economic life of the asset (before it becomes obsolete).






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DEPRECIATIONS AND AMORTIZATIONS

Residual value

- is the amount a company expects to receive from sale or disposal of a long-lived asset at the end of its useful life.




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DEPRECIATIONS AND AMORTIZATIONS

Book value


- Value that appears in the balance sheet (after deducting the depreciations/amortizations and impairments)

Acquisition cost – accumulated depreciation/amortization – accumulated impairments



DEPRECIATIONS AND AMORTIZATIONS

- **Straight-line depreciation**
 - Spreads the depreciable value evenly over the useful life of an asset
 - Is by far the most popular method for financial reporting purposes
- **Depreciation Based on Units**
 - When physical wear and tear determines the useful life of the asset, depreciation may be based on units of service or units of production instead of units of time (years)




DEPRECIATIONS AND AMORTIZATIONS

Straight Line Method

- The A depreciation/amortization is calculated as follows:


$$Q_t = \frac{V_o - R}{n} = \frac{A}{n}$$

V_o – Acquisition value
 R – Residual value
 A – Value to depreciate/amortize: $A = V_o - R$
 Q_t – Depreciation/Amortization at period t
 n – Number of years of useful life




Depreciation and Cash Flow

- **Depreciation**
 - Does not generate cash
 - Allocates the original cost of an asset to the periods of use
 - Is a deductible noncash expense for income tax purposes
- Higher tax depreciation results in lower taxable income and lower taxes, keeping more cash in the business




Expenditures After Acquisition

- Repairs and maintenance are treated as expenses of the current period
 - **Repairs** include the costs of breakdowns, accidents, or damage
 - **Maintenance** includes the routine costs of oiling, polishing, painting, and adjusting
- Improvements are capitalized as assets
 - **Improvements** are expenditures that increase the future benefits provided by a fixed asset



Gains and Losses on Sales of Tangible Assets


- When a tangible asset is sold, a gain or loss occurs when there is a difference between the cash received and the net book value of the asset
 - Cash received > book value = gain
 - Cash received < book value = loss
- The disposal requires the removal of the asset's book value, which appears to two accounts:
 - Equipment
 - Accumulated Depreciation



Impairment of Tangible Assets

- An asset is considered to be **impaired** when it ceases to have economic value as large as the book value
- Impairment of assets held for use:
 - Step 1: Recoverability test—if undiscounted expected cash flow < book value, impairment exists
 - Step 2: Impairment loss = book value – fair value
- The entry to record the impairment loss is:


Loss on impairment	xxx
Accumulated impairments	xxx



Financial Investments

Includes all financial assets that are not measured at the fair value and are not part of Class 1.


- Measurement criteria: cost or amortized cost method;
- Parts in other companies should be measured by the equity method (patrimonial equivalence method) if participation is equal or above 20%
- Joint venture can be measured by the equity method or proportional consolidation



Financial Investments

It is divided into:

- *Investments in branches*
- *investments in associates*
- *investments in joint ventures*
- *investments in other firms*
- *other financial investments*
- *accumulated impairments*



Financial Investments

Fair value


Changes in fair value

Increases in fair value

Decreases on fair value

Accounting I


**FINANCING ACTIVITIES
OBTAINED FINANCING
EQUITY**



Financing Activities

Firms can be financed through:

- Debt → Liability (financing)
- Equity Instruments → Equity



Debt

a) Obligation that comes from a contract to:


- (i) pay money or other financial instrument to another entity; or
- (ii) trade financial assets or liabilities with another entity in terms that are unfavorable to the entity; or

b) Contract that can be liquidated with equity instruments (e.g. stocks) from the company and that has the characteristics of financing liabilities.



Equity Instrument

- Any contract that gives a residual claim in the assets of a company after liquidating all the liabilities.




Loans obtained

This account does not include purchases, or any other operational transaction, on credit (Accounts Payables) nor taxes due (State and Other Public Entities).

The origin of the loan can come from:


- Banks and other financial institutions;
- Financial market (bonds);
- Shareholders;
- Participated companies – associate companies, joint ventures;
- Others.



CAPITAL

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- Increases of capital should only be recognized when and only when the owners have contributed with the assets to realize their part in the company. The assets should be measured at fair value
- Capital issued but not realized should not be recognized in the balance sheet. Only after realized, can capital be recognized in the balance sheet.
- All the expenditures supported to increase capital should be directly deducted to equity.



CAPITAL

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When capital is divided in stocks it's important to distinguish 3 different concepts for each stock:

- **Nominal value:** amount written in the stock (Capital/n. of stocks).
- **Book value:** equity value of the stock
Equity/ n. of stocks
- **Market Value:** value for which each stock can be sold/purchased. This value can be found in the capital market for publicly traded companies.

Accounting I

END OF THE YEAR OPERATIONS

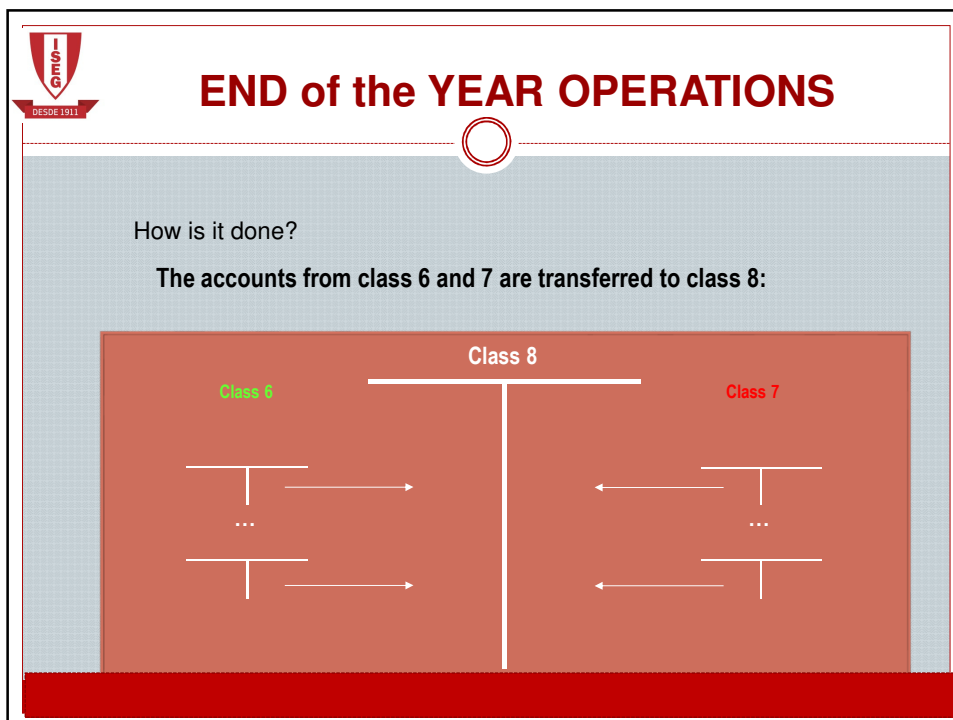
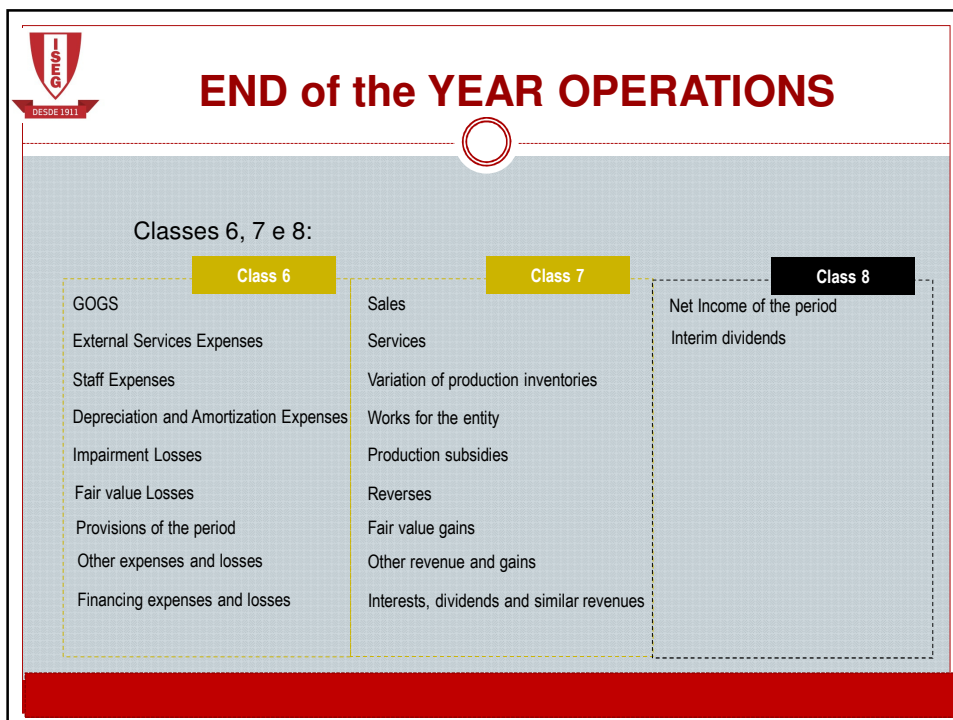


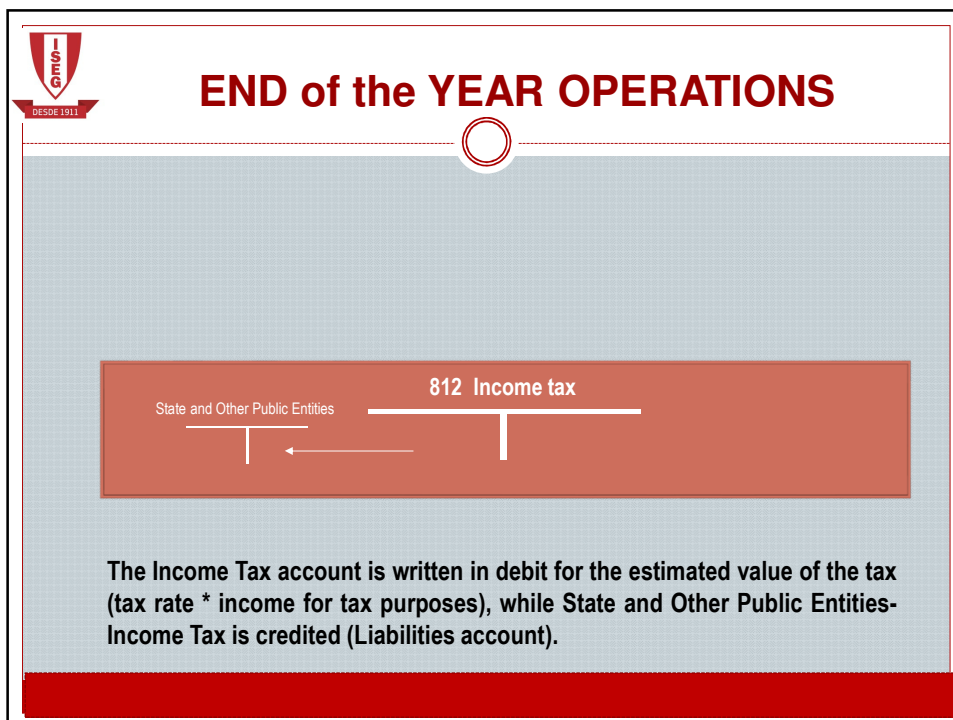
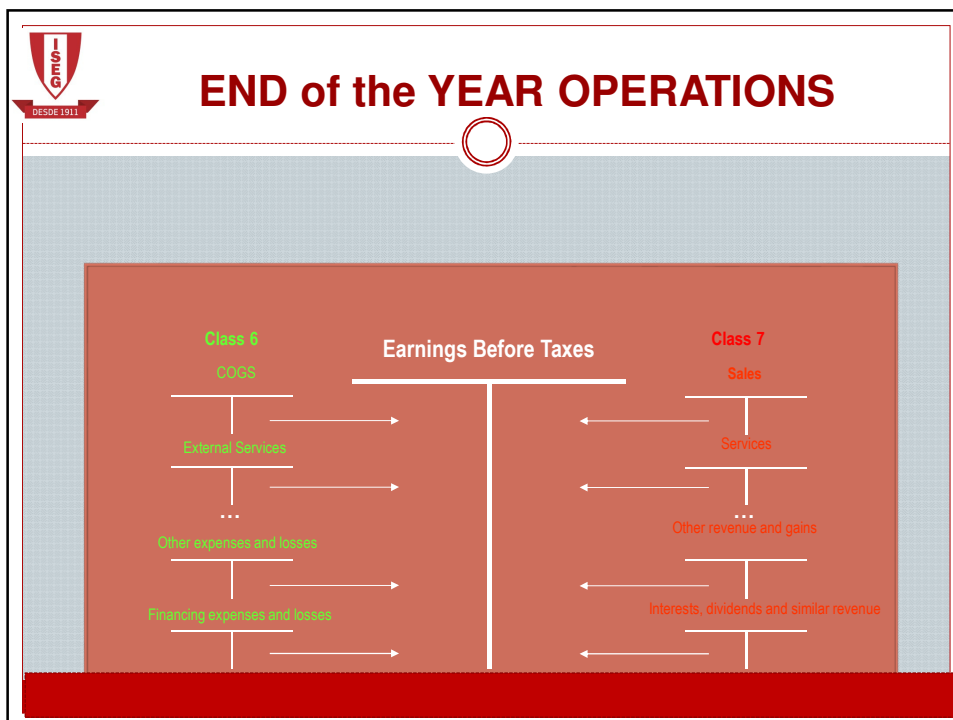
END of the YEAR OPERATIONS


It is the end of the accounting cycle.

Accountants book:

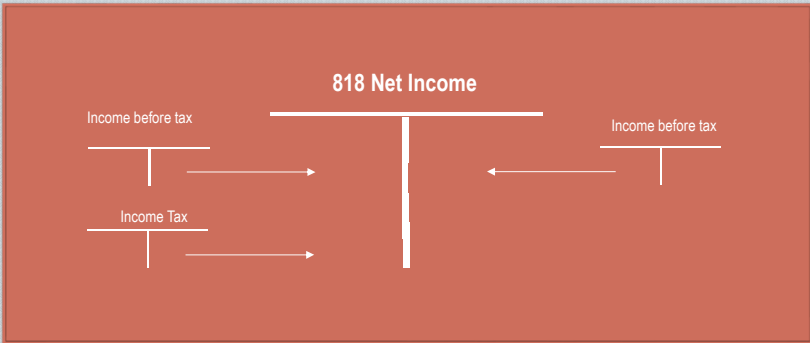
- Regularizations – Examples: Depreciation and Amortization Expenses, Accruals and Deferrals, Impairments,...
- Net Income - During the year the firm used accounts of expenses and revenues. When the year is ended it is necessary to determinate the result of the period in order to evaluate the economic performance. To do so, we compare the revenues and expenses incurred.






 **END of the YEAR OPERATIONS**

Finally, the account Net Income (#818) received all the balances from the previous accounts:



The diagram illustrates the closing process for the Net Income account (#818). It shows three T-accounts: 'Income before tax' on the left, 'Income Tax' on the left, and 'Income before tax' on the right. Arrows indicate that the debit balances from the left 'Income before tax' and 'Income Tax' accounts, and the credit balance from the right 'Income before tax' account, are transferred to the '818 Net Income' account.

 **END of the YEAR OPERATIONS**

- The balances of the accounts of classes 6 and 7 are determined and then transferred to class 8 - Income.
- Therefore, the balances of 6 and 7 are, after this, zero!!
- The balances of the accounts of these classes will appear on the income statement