

The background of the slide features a collage of financial charts and graphs. In the upper left, there is a bar chart with approximately 10 bars of varying heights. To its right is a line graph with a grid background, showing a fluctuating line with peaks and troughs. Below these, on the left, is another bar chart with about 8 bars. On the right, there is a larger bar chart with 10 bars, showing a general upward trend. The entire background has a blue and purple color scheme with a grid pattern.

Analyzing Investing Activities

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How do Investing decisions affect the financial statements ?

1. Cash and cash equivalents
2. Receivables and collection risk
3. Inventory methods and inflation
4. Long-term assets and capitalization
5. Intangible assets and goodwill
6. Asset revaluations under IFRS

1. Cash and cash equivalents

1. Cash and cash equivalents

Basic definitions:

- Cash: currency available and money in the bank.
- Cash equivalents: short-term, highly liquid investments that are readily convertible to known amounts of cash and subject to an insignificant risk of changes in value.

1.1 Analyzing Cash and Cash Equivalents

The focus is determining whether the company has enough cash to meet its obligations and take advantage of opportunities.

Efficient cash management balances multiple uses of cash:

- Meet current obligations
- Take advantage of opportunities
- Invest excess cash
- Pay dividends
- Hedge adverse shocks (risk management)

How to identify lazy cash management?

- High cash balances relative to peers
- More cash equivalents than cash without further explanation
- Cash does not fluctuate symmetrically (it is never spent)

Caution

- Covenant restrictions: Sometimes cash is restricted because it is used as collateral for debt (ej, Ebay needed to hold \$126 million in cash as collateral for debt, out of \$400 million in cash)

Example Apple 2022

	September 26, 2020	September 28, 2019
ASSETS:		
Current assets:		
Cash and cash equivalents	\$ 38,016	\$ 48,844
Marketable securities	52,927	51,713
Accounts receivable, net	16,120	22,926
Inventories	4,061	4,106
Vendor non-trade receivables	21,325	22,878
Other current assets	11,264	12,352
Total current assets	143,713	162,819

Note 3 – Financial Instruments**Cash, Cash Equivalents and Marketable Securities**

The following tables show the Company's cash and marketable securities by significant investment category as of September 26, 2020 and September 28, 2019 (in millions):

	2020						
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Current Marketable Securities	Non-Current Marketable Securities
Cash	\$ 17,773	\$ —	\$ —	\$ 17,773	\$ 17,773	\$ —	\$ —
Level 1 ⁽¹⁾ :							
Money market funds	2,171	—	—	2,171	2,171	—	—
Subtotal	2,171	—	—	2,171	2,171	—	—
Level 2 ⁽²⁾ :							
U.S. Treasury securities	28,439	331	—	28,770	8,580	11,972	8,218
U.S. agency securities	8,604	8	—	8,612	2,009	3,078	3,525
Non-U.S. government securities	19,361	275	(186)	19,450	255	3,329	15,866
Certificates of deposit and time deposits	10,399	—	—	10,399	4,043	6,246	110
Commercial paper	11,226	—	—	11,226	3,185	8,041	—
Corporate debt securities	76,937	1,834	(175)	78,596	—	19,687	58,909
Municipal securities	1,001	22	—	1,023	—	139	884
Mortgage- and asset-backed securities	13,520	314	(24)	13,810	—	435	13,375
Subtotal	169,487	2,784	(385)	171,886	18,072	52,927	100,887
Total ⁽³⁾	\$ 189,431	\$ 2,784	\$ (385)	\$ 191,830	\$ 38,016	\$ 52,927	\$ 100,887

Example Inditex 2022

21. Net financial position

The detail of the Group's net financial position is as follows:

	31/01/2023	31/01/2022
Cash in hand and at banks	2,530	3,588
Short-term deposits	2,830	2,388
Fixed-income securities	201	1,045
Total cash and cash equivalents	5,561	7,021
Current financial investments	4,522	2,374
Current financial debt	(13)	(35)
Non-current financial debt	-	(1)
Net financial position	10,070	9,359

1.2 Receivables and collection risk

Basic definitions:

Accounts receivable: amounts owed by customers for goods or services sold on credit

Note receivable: a formal written promise to receive a specific amount of money at a future date

Others: interest receivable, taxes receivable, receivables from affiliated companies

Valuation of receivables

- The valuation of receivables has two important inter-related impacts: assets and income
- Companies do not collect 100% of their receivables !
- Thus, Receivables are recorded at their Net Realizable Value (NRV), which is the amount of cash the firm expects to collect
 - NRV: total receivables - allowance for uncollectable accounts
 - Uncollectable accounts are reported as a deduction of (or writing off against) receivables
 - Uncollectable accounts are estimated based on historical data and other factors
 - The expected loss is reported as Bad Debt Expense (operating expense)

Analyzing receivables

- Is there any error or arbitrariness in estimating the allowance for uncollectable accounts?
- Managers' incentives to overstate or understate the allowance for uncollectable accounts
- Bad news: information to assess collection risk for receivables is not included in the financial statements. Thus, we need to look for other sources of information:
 - Peer's receivables as a percentage of sales
 - Customer concentration risk
 - Average collection period

Example Grifols 2022

(c) Trade and other receivables

Details of trade and other receivables are as follows:

Thous and Euros	
	2022
	Current
Group	
Trade receivables (Note 24)	50,198
Associates	
Trade receivables (Note 24)	-
Unrelated parties	
Trade receivables	833
Other receivables	1,068
Personnel	171
Taxation authorities, income tax (Note 22)	2,486
Public entities, other (Note 22)	18,113
	72,869
	2021
	Current
	71,645
	1,272
	1,659
	227
	280
	358
	16,376
	91,817

Securitization or Factoring of receivables

- Receivables can be sold to a third party (bank, financial institution, etc.) in exchange for cash
- The third party usually pays less than the face value of the receivables and finances the purchase by issuing debt to the capital markets.
- The collection of those receivables provides the cash flow to pay the debt
- Should the factored receivables be reported as assets ?
 - Receivables can be kept off the balance sheet if the company surrenders all control over the receivables to an independent buyer.
 - If the company has any degree of retained interest in the receivables, they should be reported as an asset

Example: Factoring of receivables

Syntex Co. securitizes its entire receivables of \$400 million with no recourse by selling the portfolio to a trust that finances the purchase by selling bonds.

Evaluate three scenarios

1. Before securitization
2. After securitization with off-balance financing (as reported under US GAAP and IFRS)
3. After securitization but reflecting the securitization as a borrowing (analyst's adjustment)

Consolidation rules

The consolidation rules regarding SPEs (Special Purpose Entities) are complex and are out of the scope of the course. The following normative are currently in place:

SFAS 104

FIN 46R

3. Inventory methods and inflation

3. Inventory methods and inflation

Basic definition:

- Inventory: goods held for sale in the ordinary course of business or goods that will be used in the production of goods to be sold
- Valuation of inventories affects both current assets and cost of goods sold (COGS)
 - i. First it affects current assets: inventory is reported at its cost
 - ii. Then, as the inventory is sold, these costs are removed from the balance sheet and flow to the income statement as COGS

3.1 Inventory methods

- Assume that the following reflects the inventory records of a company:

Date	Units	Unit Cost	Total Cost
Jan 1	40	\$500	\$20,000
Purchase during year	60	\$600	\$36,000
Total COGS	100		\$56,000

Now assume that 30 units are sold at \$800 each. What is the gross profit under each method?

Case 1: First-in, first-out (FIFO)

- The first units purchased are the first units sold

Method	FIFO
Sales	\$24.000
COGS (30 @ 500)	\$15.000
Gross Profit	\$9.000

In the balance sheet at the end of the period, the inventory is reported at \$41.000 (\$56.000-\$15.000)

Case 2: Last-in, first-out (LIFO)

- The last units purchased are the first units sold

Method	LIFO
Sales	\$24.000
COGS (30 @ 600)	\$18.000
Gross Profit	\$6.000

In the balance sheet at the end of the period, the inventory is reported at \$38.000 (\$56.000-\$18.000)

Important: LIFO is not allowed in all countries ! why ? mainly because it delays or reduces the payment of taxes. Even it is not allowed in IFRS

Case 3: Average cost

- The weighted average cost of all units is used to determine COGS

Method	Average
Sales	\$24.000
COGS (30 @ 560)	\$16.800
Gross Profit	\$7.200

In the balance sheet at the end of the period, the inventory is reported at \$39.200 (70 units @ \$560)

Discussion

- Profitability: FIFO results in higher gross profit than LIFO when input prices are rising
- Balance sheet: FIFO results in higher inventory than LIFO when input prices are rising
- Cash flows: liquidity squeeze under FIFO when input prices are rising.
 - More profit implies more (cash) tax payments
 - Inventory needs to be replaced at a replacement cost higher than the original costs. This can be a severe problem in high inflation environments such as Argentina in the 80s and 90s or the US in the 70s.

3.2 Lower of cost or market (LCM)

So far we have focused only on historical cost.

However, the generally accepted principle of inventory valuation requires that inventory be reported at the lower value between the cost and the market value.

The LCM rule is applied when the market value of inventory is lower than its cost.

Reasons:

- obsolete inventory
- damaged inventory
- price changes

Procedure:

1. Determine the market value of the inventory
2. Compare the market value with the cost in the Balance Sheet
3. Write down the inventory to the lower of cost or market value
4. This write-down is charged against revenues in the period the loss occurs

Write-ups are not allowed under US GAAP and IFRS

3.3 Inventory costing for Manufacturing companies

- Manufacturing companies have three types of inventories:
 - Raw materials: materials that will be used in the production process
 - Work-in-process: goods that are in the process of being manufactured
 - Finished goods: goods that are ready for sale

The main components of the cost of inventories are:

- Direct materials: materials that are an integral part of the finished product and whose costs can be traced to the finished product
- Labor: labor costs that can be traced to the finished product
- Overhead: indirect costs that cannot be traced to the finished product
 - depreciation of manufacturing equipment, supervisory wages, utilities, etc

- In a Cost Accounting course, you learn how to allocate overhead costs to the finished product: it is a complex process that requires a lot of assumptions and judgment.
- Important for us: as the production level increases, more overhead cost is allocated to all units produced.
- Instead of expensing these costs as period expenses, they are included in the cost of inventories and remain on the balance sheet until the inventory is sold.

Takeaway: Profitability is overstated when production increases because part of the cost of inventories is not expensed in the period in which it is incurred.

Example Colgate 2022

17. Supplemental Balance Sheet Information

Inventories by major class are as follows at December 31:

Inventories	2022	2021
Raw materials and supplies	\$ 666	\$ 505
Work-in-process	48	39
Finished goods	1,508	1,248
Total Inventories, net	\$ 2,222	\$ 1,792
Non-current inventory, net	(148)	(100)
Current Inventories, net	\$ 2,074	\$ 1,692

Inventories valued under LIFO amounted to \$458 and \$410 at December 31, 2022 and 2021, respectively. The excess of current cost over LIFO cost at the end of each year was \$146 and \$60, respectively. The liquidations of LIFO inventory quantities had no material effect on income in 2022, 2021 and 2020. Inventory classified as non-current at December 31, 2022 was recorded on the Consolidated Balance Sheets as “Other assets.”

Example Grifols 2022

(k) Inventories

(i) General

Inventories are measured using the FIFO (first in, first out) method. When the cost of inventories exceeds replacement value, materials are written down to net realisable value.

Inventories are mainly spare parts used to maintain the Company's buildings and facilities.

4. Long-term assets and capitalization

4. Long-term assets and capitalization

4.1 Capitalization and Allocation

Capitalization: the cost of an asset is recorded as an asset rather than an expense

- Hard assets, such as PPE: assets recorded at cost (purchase price + all costs necessary to get the asset ready for use)
- Soft assets, such as R&D, advertising, and wages. Here, the capitalization is more complicated.
 - They are investments that will likely generate future benefits, but
 - No clear useful life, nor clear future benefits
 - Therefore, these costs are immediately expensed and are not recorded as an asset in the Balance Sheet

Allocation: is the assignment of the cost of an asset as an expense over its useful life

- Depreciation: tangible asset
- Amortization: intangible asset

Allocation is not a valuation process. It is a way to match the cost of an asset with the revenues it generates !

Depreciation methods

- Useful life: physical deterioration, technological obsolescence, legal life
- salvage value: expected value of the asset at the end of its useful life
- Allocation method: straight-line, accelerated, or units of production
- Managers decide which method to use at the time of acquisition

Example

The purchase of a new machine has the following characteristics:

- Purchase price: \$800,000
- Estimated residual value: \$50,000
- Expected useful life: 5 years
- total production capacity: 100,000 units (15,000 units in year 1 and 23,000 units in year 2)

What is the carrying amount of the machine after two years if the company uses the straight-line method?

How much depreciation expense is recorded in the income statement in year 2?

Solution:

- Annual depreciation= $(800,000 - 50,000) / 5 = \$150,000$
- Carrying amount after two years= $800,000 - 2 * 150,000 = \$500,000$

How does the solution change if the company uses the units of production method?

- Depreciation per unit: 7.5 euros per unit
- Depreciation in year 1: $7.5 * 15,000 = \$112,500$
- Depreciation in year 2: $7.5 * 23,000 = \$172,500$
- carrying amount after 2 years: $800,000 - 112,500 - 172,500 = \$515,000$

Depletion

- Depletion is the allocation of the cost of natural resources based on the unit exploitation of natural resources like coal, oil, gas, etc.
- Thus, depletion depends on the production level

Impact on the financial statements

- Capitalization: increases assets and equity
- Income statement: Capitalization leads to higher and stable net income in the short term.
 - Lumpy investments are smoothed out over time to match the cost of the asset with the revenues it generates
- Operating Cash flows: When asset costs are capitalized, they are reported as investing cash outflows. When they are expensed, they are reported as operating cash outflows
 - So expensing overstates operating cash outflows and understates investing cash outflows in the acquisition year compared with capitalization of costs.

Example Grifols 2022

(iii) Depreciation

Property, plant and equipment are depreciated by allocating the depreciable amount of the asset on a systematic basis over its useful life. The depreciable amount is the cost of an asset. The Company determines the depreciation charge separately for each component of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the asset and with a useful life that differs from the remainder of the asset.

Property, plant and equipment are depreciated using the following criteria:

	Depreciation method	Rates %
Buildings	Straight-line	2
Technical installations and machinery	Straight-line	10
Other installations, equipment and furniture	Straight-line	4-10
Other property, plant and equipment	Straight-line	7-33

The Company reviews useful lives and depreciation methods at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

4.2 Impairments

Impairment: is the write-down of an asset to its fair value when its carrying value exceeds its fair value. [IFRS IAS 36](#).

- Recoverable amount. The higher of:
 - Fair value less cost to sell
 - Value-in-use.
- carrying value: cost of the asset less accumulated depreciation

Example (Under IFRS) Barceloneta Inc. reports under IFRS, and its manager has collected the following information about a set of assets tested for impairment:

- Carrying value: 35 million euros
- Fair value: 28 million euros
- Selling costs: 1.5 million euros
- PV of expected future cash flows (disc.): 33 million euros
- Total value of expected future cash flows (undisc.) 35.5 million euros

What is the amount of the impairment loss?

Solution:

- Carrying value? 35 million euros
- Recoverable amount?
 - $FV - \text{selling costs} = 28 - 1.5 = 26.5$ million euros
 - Value-in-use = 33 million euros
- 2 million euros (35 - 33) is the impairment loss
- The carrying value is reduced to 33 million euros (asset reduction)
 - 2 million euros is recognized as a loss in the income statement, which reduces net income and equity
 - "Other Income Expenses" in "Operating profit."

Example (Under US GAAP)

Solution: US GAAP is a bit more tricky. The impairment loss is recognized if the carrying value exceeds the undiscounted expected future cash flows.

If that is the case, the impairment loss is the difference between the asset's carrying value and the fair value.

- carrying value: 35 million euros
- undiscounted cash flows: 35.5 million euros

Therefore, no impairment loss is recognized under US GAAP

Impact on the financial statements

In the period when the impairment loss is recognized:

- Impairments reduce the carrying value of the asset
- Impairments reduce equity (retained earnings)
- Impairments are charged against revenues

5. Intangible assets and goodwill

5. Intangible assets and goodwill

Definition: Intangible assets are long-term assets that have no physical substance but value based on the rights or privileges granted to the company using them. This value, however, is not easy to determine: too much uncertainty

- Patents
- Copyright
- Trademarks
- Exploration rights
- Licenses and franchises
- Goodwill

5.1 Accounting for intangible assets

- Purchased intangible assets are recorded at historical cost
- Internally generated intangible assets are expensed as incurred
 - R&D cost (at least in the US and R in most of Europe)
 - Why? Accounting conservatism: too much uncertainty about the future benefits of these assets
- Exceptions: Software development costs are capitalized, also some identifiable intangible assets such as patents, trademarks, etc.
 - The capitalized costs of these cases may include legal fees, design and testing costs, registration fees, and other direct expenditures.
 - Once the patent is granted and capitalized, it is amortized over its helpful/legal life.

Example Colgate 2022

5. Goodwill and Other Intangible Assets

The changes in net carrying value of Goodwill by segment for the years ended December 31, 2022 and 2021 were as follows:

	2021				
	Beginning Balance	Acquisitions	Impairments	Foreign currency translation	Ending Balance
Oral, Personal and Home Care					
North America	\$ 912	\$ —	\$ —	\$ —	\$ 912
Latin America	171	—	—	(12)	159
Europe	2,415	—	(367)	(146)	1,902
Asia Pacific	190	—	—	(8)	182
Africa/Eurasia	121	—	—	(7)	114
Total Oral, Personal and Home Care	3,809	—	(367)	(173)	3,269
Pet Nutrition	15	—	—	—	15
Total Goodwill	<u>\$ 3,824</u>	<u>\$ —</u>	<u>\$ (367)</u>	<u>\$ (173)</u>	<u>\$ 3,284</u>

2022

COLGATE-PALMOLIVE COMPANY**Notes to Consolidated Financial Statements (continued)**

(Dollars in Millions Except Share and Per Share Amounts)

Other intangible assets as of December 31, 2022 and 2021 were comprised of the following:

	2022			2021		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Trademarks - finite life	\$ 885	\$ (471)	\$ 414	\$ 891	\$ (445)	\$ 446
Other finite life intangible assets	616	(322)	294	744	(289)	455
Indefinite life intangible assets	1,212	—	1,212	1,561	—	1,561
Total Other intangible assets	<u>\$ 2,713</u>	<u>\$ (793)</u>	<u>\$ 1,920</u>	<u>\$ 3,196</u>	<u>\$ (734)</u>	<u>\$ 2,462</u>

🔍 Colgate's 10-K, item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations"

Goodwill and Intangible Assets Impairment Charges

In the fourth quarter of 2022, the Company made revisions to the internal forecasts relating to its Filorga reporting unit due primarily to the continued impact of the COVID-19 pandemic [...]. The Company concluded that the changes in circumstances in this reporting unit [...] triggered the need for an interim **impairment review of its indefinite-lived trademark, goodwill and long-lived assets** which consists primarily of customer relationships. As a result of (...) the Company concluded that the carrying value of the trademark and customer relationships exceeded their estimated fair value and recorded impairment charges of \$300 and \$89, respectively, reducing their carrying values to \$257 and \$118, respectively, as of December 31, 2022.

6. Asset revaluations under IFRS

6. Asset revaluations under IFRS

- Under IFRS, companies can write up their assets to fair value
 - This departs from a long-held tradition of LCM
- Scenarios: A. reversal of prior impairment as long as the write-up does not exceed the depreciated historical cost of the asset. [IFRS IAS 36](#) - E.g., markets could reverse earlier declines in the value of the asset - this increases gains in the period' Income Statement and the net value of the asset and retained earnings in the Balance Sheet

- Scenarios: B. creation of revaluation surplus [IFRS IAS 16](#) - in this case, the company decides to estimate the fair value for all the assets in a class periodically and write up/down to reflect the current fair value - if the fair value is above historical cost, the difference is recorded as a revaluation surplus in the equity section of the Balance Sheet (and not in the income statement !) - depreciation: only the historical cost, not the revaluation surplus - the method stops when the fair value is equal to the historical cost

Example revaluation method (1):

Millan Manufacturing is located in Spain and reports under IFRS. The company uses a revaluation model to account for its land and buildings.

- January 1, 2020: Millan purchased a plot of land for €3,000,000.
- December 31, 2020: the fair value of the land is €3,500,000.
- December 31, 2021: the fair value of the land is €2,800,000.

Evaluate how the revaluation model impacts the financial statements of Millan Manufacturing in 2020 and 2021.

Example revaluation method (2):

Millan Manufacturing is located in Spain and reports under IFRS. The company uses a revaluation model to account for its land and buildings.

- January 1, 2020: Millan purchased a plot of land for €3,000,000.
- December 31, 2020: the fair value of the land is €2,600,000.
- December 31, 2021: the fair value of the land is €3,300,000.

Evaluate how the revaluation model impacts the financial statements of Millan Manufacturing in 2020 and 2021.

Based on:

- Subramanyam, K. R. (2014). Financial statement analysis. McGraw-Hill Education. Chapter 4.
- Steven M. Bragg (2022). IFRS Guidebook. Accounting Tools. Chapters 13-16.
- IAS 2 Inventories.
- IAS 16 Property, Plant and Equipment.
- IAS 36 Impairment of Assets.
- IAS 38 Intangible Assets.

Questions ?

Check my website for updated versions of this presentation:

👉 <https://www.marceloortizm.com/>

Thanks 🙌