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# A86045 Accounting and Financial Reporting (2018/2019) 

## Session 3

Financial Analysis: EPS and Segments

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## SESSION 3 OBJECTIVES \& OVERVIEW

## Session 3 Overview

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Mins

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## Course Overview

## Trovailfuturo che ticerca.

| 1. Financial reporting under IFRS | 13. Inventories |
| :--- | :--- |
| 2. Financial analysis: Ratio analysis | 14. Construction contracts |
| 3. Financial analysis: Segments and EPS | 15. Non-financial liabilities |
| 4. Review session | 16. Review session |
| 5. Revenues | 17. Mid term test |
| 6. Costs and expenses | 18. Financial Instruments 1 |
| 7. Taxation - Direct and Indirect | 19. Financial Instruments 2 |
| 8. Non-current assets - Intangible assets | 20. Cash Flow Statement |
| 9. Non-current assets - Tangible assets | 21. Group accounts/Business comb |
| 10. Financial leases | 22. Review session |
| 11. Impairment of assets | 23. Final test |
| 12. Review session |  |

## Objectives of Session 3

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At the end of this session session students will be able to:

- Apply the basic techniques of financial analysis
- Ratio analysis
- Trend analysis
- Common size analysis
- Perform a high level assessment of a company's:
- Profitability
- Liquidity
- Efficiency
- Investment
- Calculate Basic EPS, Fully diluted EPS and the weighted average of shares outstanding
- Understand what an Operating segment is and a Reportable segment is and the disclosures required by IFRS 8


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## SESSION 2 RECAP AND PRE-WORK

## Session 2 summary

- Recap Session 1 and the 4 basic financial statements
- Financial analysis
- Ratio analysis (profitability, liquidity, efficiency and investment)
- Ratio, trend and common size analysis
- Reading, research and assignment for next session

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## Required Reading and research assignment

- Reading
- Melville
- Chapter 22 - Ratio Analysis (26 pages)
- IFRS
- None
- Exercises
- Melville Exercises 22.1-22.6
- Melville On-line multiple choice questions for the above chapter
- Exercise EX 2 Financial Analysis Exercises
- Research assignment
- European companies in the Top Global 100 companies using IFRS
- RA 2 Data collection template for chosen companies
- Calculate the profitability, liquidity, efficiency and investment ratios
- Perform a three year trend analysis of the Profit and loss accounts
- Perform a two year comparison of the statement of financial position
- Identify reasons for significant fluctuations from the Company's Annual Report


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## RATIO ANALYSIS

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- Profitability
- Gross margin
- Operating margin
- Net profit margin
- Return on capital employed (ROCE)
- Return on equity (ROE)
- Liquidity
- Current ratio
- Quick ratio (acid test)
- Efficiency
- Asset turnover
- Inventory turnover (DOI)
- Accounts receivable turnover (DSO)
- Accounts payable turnover (DPO)
- Investment ratios
- Earnings per share (EPS)
- Price earnings ratio (P/E)
- Dividend cover
- Dividend yield
- Capital Gearing/Leverage
- Interest cover


## Ratio analysis

> Ratios are useful to understand a company's situation. However, they can
> be even more useful if we compare and confront them both over time and with other companies.

Ratios can also help understand what is going on within a business through segmental analysis

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## TREND ANALYSIS

## Trend analysis

2013
2012

- Profitability
- Gross margin
- Operating margin
- Net profit margin
- Return on capital employed (ROCE)
- Return on equity (ROE)
- Liquidity
- Current ratio
- Quick ratio (acid test)
- Efficiency
- Asset turnover
- Inventory turnover /DOI
- Accounts receivable turnover/DSO
- Accounts payable turnover/DPO
- Investment ratios
- Earnings per share (EPS)
- Price earnings ratio (P/E)
- Dividend cover
- Dividend yield
- Capital Gearing/Leverage
- Interest cover


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## COMMON SIZE ANALYSIS

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## Common size analysis

Company 1 Company 2
Company 3

- Profitability
- Gross margin
- Operating margin
- Net profit margin
- Return on capital employed (ROCE)
- Return on equity (ROE)
- Liquidity
- Current ratio
- Quick ratio (acid test)
- Efficiency
- Asset turnover
- Inventory turnover /DOI
- Accounts receivable turnover/DSO
- Accounts payable turnover/DPO
- Investment ratios
- Earnings per share (EPS)
- Price earnings ratio (P/E)
- Dividend cover
- Dividend yield
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## EARNING PER SHARE - IAS 33

## Significance of EPS

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- EPS is widely used as a means of assessing a company's financial performance
- EPS feeds into the Price/Earnings ratio, which is an important indicator of investment potential
- EPS is the only ratio which is defined by an international standard (IAS33)


## Scope of IAS33

- IAS33 applies only to companies whose shares are publicly traded.
- The consolidated financial statements of a group of companies disclose EPS for the group as a whole.


## Calculation of Basic EPS

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Profit or loss for the period attributable to ordinary shareholders*

Weighted average number of ordinary
shares outstanding during the period

* i.e. Excludes profit or loss attributable to non-controlling interests. Also after any preference dividends on preference shares


## Basic EPS - example

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| Continuing operations | $£^{\prime} 000$ S |
| :---: | :---: |
| Profit before tax | 650 |
| Taxation | (200) |
| Profit from continuing operations | 450 |
| Discontinued operations |  |
| Profit from discontinued operations | 70 |
| Profit for the period | 520 |
| $£ 520,000-£ 50,000=47 \mathrm{p} \mathrm{per}$ share | EPS |
| 1,000,000 |  |
| $£ 450,000-£ 50,000=40 p$ per share | EPS - C |
| 1,000,000 |  |

## Continuing operations

Discontinued operations
Profit from discontinued operations $\underline{70}$
Profit for the period
$\frac{£ 520,000-£ 50,000}{1,000,000}=47$ p per share
$\frac{£ 450,000-£ 50,000}{1,000,000}=40$ p per share

1. The company's issued share capital consists of 500,000 10\% Preference shares of $£ 1$ each and one million ordinary shares of $£ 1$ each.
2. A preference dividend of £50,000 was paid during the year.

# Calculation of the weighted average number of shares 

a). No. of shares outstanding at beginning of the period plus
b). No. of shares issued during the period x a time weighting factor less
c). No. of any shares bought back by the company (if any) $x$ time weighting factor.

## Example - Weighted average calculation

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On 1 January 2017, a company's issued share capital consisted of 60,000 ordinary $£ 1$ shares. On 1 March 2017, the company issued 30,000 ordinary shares. On 1 October 2017, the company bought back 10,000 ordinary shares. Both the share issue and the buy-back were made at full market price.

Calculate the weighted average number of ordinary shares outstanding in the year to 31 December 2017.
$60,000+(30,000 \times 10 / 12)-(10,000 \times 3 / 12)=82,500$ shares.

OR
$(60,000 \times 2 / 12)+(90,000 \times 7 / 12)+(80,000 \times 3 / 12)=82,500$ shares.

## LIUC <br> Calculation of Diluted EPS

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Diluted EPS is the EPS figure that would arise if all dilutive potential ordinary shares were issued.

- Potential ordinary shares generally occur in connection with convertible loan stocks and share options.
- Shares are regarded as dilutive if the effect of their issue would be to reduce basic EPS.

Diluted EPS must be disclosed for the previous accounting period as well as for the current accounting period.

## IAS33 presentation and disclosure requirements

- Basic EPS and diluted EPS must be presented in the statement of comprehensive income.
- EPS figures must be presented even if they are negative (i.e. if there is a loss per share).
- The earnings figures used in EPS calculations must be disclosed and reconciled to the profit or loss shown in the financial statements.
- The weighted average number of shares used in the calculation of basic EPS and diluted EPS must be disclosed and reconciled to each other.


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## SEGMENT ANALYSIS - IFRS 8

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## Segmental Analysis

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IFRS 8 Definition of an operating segment

An Operating Segment is a component of an entity:
a) That engages in business activities from which it may earn revenues and incur expenses
b) Whose operating results are regularly reviewed by the company's Chief Operating Decision Maker to make decisions about resources to be allocated to the segment and to assess its performance
c) For which discrete financial information is available

## Reportable Segment

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A single or combined operating segment which meets any of the following quantitative thresholds:
I. Revenue is at least $10 \%$ of total revenue
II. Profit or loss is at least $10 \%$ of combined profit or loss of all reportable segments
III. Assets are at least $10 \%$ of total assets

If reportable segments do not cover at least 75\% of total external revenues, additional segments must be identified until this threshold is met.

## Disclosures required by IFRS8

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- General information
- Information about reportable segments
- Reconciliations
- Entity-wide information


## General information

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An entity should disclose the factors used to identify its reportable segments and the types of products or services from which each reportable segment earns its revenues.

The way in which the entity is organised internally should be made clear.

The entity should also disclose whether or not any operating segments have been combined for segment reporting purposes.

## Information about reportable segments

- Segment profit or loss
and, if provided to the chief operating decision maker:
- Segment total assets
- Segment total liabilities
- Segment external and internal revenue
- Segment interest expense and interest revenue
- Segment depreciation and amortisation
- Segment tax expense or income
- Segment non-cash items other than depreciation and amortisation (if material)
- Segment additions to non-current assets


## Reconciliations

- total revenue of reportable segments to the entity's revenue
- total profit or loss of reportable segments to the entity's profit or loss
- total assets of reportable segments to the entity's assets
- total liabilities of reportable segments to the entity's liabilities


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- revenue for each product or service (or each group of products or services)
- revenue and non-current assets for the entity's home country and (in total) for all foreign countries
- if any single customer accounts for at least $10 \%$ of total external revenue, the amount of revenue derived from each such "major customer"


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## SM 1 - Segmental analysis LVMH

| € millions | Group | Wines \& | Fashion \& | Perfumes \& | Watches \& | Selective | Other and | Eliminations | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Spirits | Leather | Cosmetics | Jewelry | Retailing | Holding | and not |  |
|  |  |  | Goods |  |  |  | Companies | allocated |  |
|  |  |  |  |  |  |  |  |  |  |
| Sales outside the Group | 42,636 | 5,051 | 15,422 | 4,534 | 3,722 | 13,272 | 635 |  | 42,636 |
| Intra-group sales |  | 33 | 50 | 1,026 | 83 | 39 | 16 | $(1,247)$ | 0 |
| Total revenue | 42,636 | 5,084 | 15,472 | 5,560 | 3,805 | 13,311 | 651 | $(1,247)$ | 42,636 |
| Cost of Sales | $(14,783)$ |  |  |  |  |  |  |  |  |
|  | 27,853 |  |  |  |  |  |  |  |  |
| Marketing and selling expenses | $(16,395)$ |  |  |  |  |  |  |  |  |
| General and administrative expenses | $(3,162)$ |  |  |  |  |  |  |  |  |
| Income (loss) from JVs and associates | (3) |  |  |  |  |  |  |  |  |
| Profit from recurring operations | 8,293 | 1,558 | 4,905 | 600 | 512 | 1,075 | (309) | (48) | 8,293 |
| Other operating income and expenses | (180) | (18) | (29) | (8) | (90) | (42) | 7 |  | (180) |
| Operating profit | 8,113 | 1,540 | 4,876 | 592 | 422 | 1,033 | (302) | (48) | 8,113 |
|  |  |  |  |  |  |  |  |  |  |
| Depreciation and amortisation expense |  | (159) | (669) | (254) | (223) | (452) | (65) |  | $(1,822)$ |
| Impairment expense |  | 1 |  |  | (50) | (58) | (2) |  | (109) |
|  |  |  |  |  |  |  |  |  |  |
| Cost of net financial debt | (62) |  |  |  |  |  |  |  |  |
| Other financial income and expenses | (117) |  |  |  |  |  |  |  |  |
| Net financial income and expenses | (179) |  |  |  |  |  |  |  |  |
| Income taxes | $(2,318)$ |  |  |  |  |  |  |  |  |
| Net profit before minority interests | 5,616 |  |  |  |  |  |  |  |  |
| Minority interests | (487) |  |  |  |  |  |  |  |  |
| Net profit, group share | 5,129 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Gross Margin | 65\% |  |  |  |  |  |  |  |  |
| Operating margin | 19\% | 30\% | 32\% | 11\% | 11\% | 8\% | -46\% | 4\% | 19\% |
| Net profit margin | 13\% |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Intangible assets and goodwill | 30,228 | 6,277 | 12,583 | 1,280 | 5,684 | 3,348 | 1,056 |  | 30,228 |
| Property, plant \& equipment | 13,206 | 2,740 | 3,058 | 607 | 537 | 1,701 | 4,570 | (7) | 13,206 |
| Inventories | 10,908 | 5,115 | 1,905 | 634 | 1,420 | 2,111 | 16 | (293) | 10,908 |
| Other operating assets | 14,208 | 1,449 | 1,235 | 1,108 | 598 | 845 | 1,279 | 7,694 | 14,208 |
| Total assets | 68,550 | 15,581 | 18,781 | 3,629 | 8,239 | 8,005 | 6,921 | 7,394 | 68,550 |
|  |  |  |  |  |  |  |  |  |  |
| Operating profit on total assets | 12\% | 10\% | 26\% | 16\% | 5\% | 13\% | -4\% | -1\% | 12\% |
|  |  |  |  |  |  |  |  |  |  |

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## RESEARCH ASSIGNMENT 2

## Research assignment 2

- Bayer
- L'Oreal
- LVMH
- Nestlé
- Shell
- Unilever

1. Calculate the profitability, liquidity, efficiency and investment ratios
2. Perform a three year trend analysis of the Profit and loss accounts
3. Perform a two year comparison of the statement of financial position
4. Identify reasons for significant fluctuations from the Company's Annual Report

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## SM 2 RA 2 Template

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## Bayer

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| Research assignment template |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company Bayer | \% Change |  | \% Change |  |  |  | \% Change | 31 December | 31 December |
|  | On PY | 2017 | On PY | 2016 | 2015 |  | On PY | 2017 | 2016 |
| Income Statement |  |  |  | Restated |  | Statement of financial position |  | £ millions | £ millions |
|  |  | £ millions |  | £ millions | £ millions | Non-current assets |  |  |  |
| Net sales | 0\% | 35,015 | -24\% | 34,943 | 46,085 | Goodwill | -10\% | 14,751 | 16,312 |
| Other revenues | \#DIV/0! |  | \#DIV/0! |  |  | Intangible assets | -14\% | 11,674 | 13,567 |
| Cost of sales Total revenues | 0\% | 35,015 | -24\% | 34,943 | 46,085 | Property, plant \& equipment | -42\% | 7,633 | 13,114 |
|  | -3\% | $(11,382)$ | -44\% | $(11,756)$ | (21,040) | Investments | 586\% | 4,007 | 584 |
| Gross profit | 2\% | 23,633 | -7\% | 23,187 | 25,045 | Deferred taxes | -23\% | 4,915 | 6,350 |
| Operating expenses | \#DIV/0! |  | \#DIV/0! |  |  | Other | 9\% | 2,034 | 1,864 |
| Research \& development | 2\% | $(4,504)$ | 3\% | $(4,405)$ | $(4,274)$ |  | -13\% | 45,014 | 51,791 |
| Selling, general and administrative expenses | 1\% | $(13,142)$ | -10\% | $(12,952)$ | $(14,364)$ | Current assets |  |  |  |
| Depreciation, ammortization and provisions | \#DIV/0! |  | \#DIV/0! |  |  | Inventories/Long-term contracts | -22\% | 6,550 | 8,408 |
| Other income (expense) | -9\% | (84) | -45\% | (92) | (166) | Trade receivables | -22\% | 8,582 | 10,969 |
| Operating profit | 3\% | 5,903 | -8\% | 5,738 | 6,241 | Other current assets | -39\% | 1,750 | 2,886 |
| Finance income (expense) | 40\% | $(1,346)$ | -4\% | (959) | (996) | Short-term investments | -44\% | 3,529 | 6,275 |
| Share of result of associated companies | -433\% | 20 | -33\% | (6) | (9) | Cash and cash equivalents | 299\% | 7,581 | 1,899 |
| Pre-tax profit | -4\% | 4,577 | -9\% | 4,773 | 5,236 | Assets held for disposal | 20710\% | 2,081 | 10 |
| Income tax | 31\% | $(1,329)$ | -17\% | $(1,017)$ | $(1,223)$ |  | -1\% | 30,073 | 30,447 |
| Net profit continuing operations | -14\% | 3,248 | -6\% | 3,756 | 4,013 | Total assets |  |  |  |
| Discontinued operations | 353\% | 4,846 | 1159\% | 1,070 | 85 |  | -9\% | 75,087 | 82,238 |
| Net profit | 68\% | 8,094 | 18\% | 4,826 | 4,098 |  |  |  |  |
| Profitability |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Gross margin (Gross profit/Revenues) | \% | 67\% |  | 66\% | 54\% | Current liabilities |  |  |  |
| Operating margin (Operating profit/Revenues) | \% | 17\% |  | 16\% | 14\% | Short-term Borrowings | -43\% | 1,935 | 3,401 |
| Net profit margin (Net profit/Revenues) | \% | 23\% |  | 14\% | 9\% | Trade payables | -20\% | 5,129 | 6,410 |
| Return on equity (Net profit/Shareholders' equity) Return on Capital employed (PBIT/Shareholders' equity + Long-term debt) | \% | 22\% |  | 15\% |  | Income taxes | -52\% | 422 | 884 |
|  | \% | 12\% |  | 11\% |  | Provisions | -20\% | 4,344 | 5,421 |
|  |  |  |  |  |  | Other current liabilities | -32\% | 1,652 | 2,421 |
| Liquidity |  |  |  |  |  | Liabilities held for disposal | \#DIV/0! | 111 |  |
| Current ratio (Current assets/Current liabilities) | Ratio:1 | 2.2 |  | 1.6 |  |  | -27\% | 13,593 | 18,537 |
| Quick ratio (Current assets - inventory/Current liabilities) | Ratio:1 | 1.7 |  | 1.2 |  |  |  |  |  |
|  |  |  |  |  |  | Non-current liabilities |  |  |  |
| Efficiency ratios |  |  |  |  |  | Long-term Borrowings | -23\% | 12,483 | 16,180 |
| Asset Turnover (Sales/Non-current assets) | Times | 0.8 |  | 0.7 |  | Provisions | 144\% | 1,366 | 1,780 |
| Inventory holding period (DOI) (Cost of sales/inventory x 365) | Days | 210 |  | 261 |  | Deferred tax liabilities | -13\% | 1,153 | 1,330 |
| Inventory turnover (Cost of sales/inventory) | Times | 1.7 |  | 1.4 |  | Pensions and employee benefits | -28\% | 8,020 | 11,134 |
| Trade receivables collection period (DSO) | Days | 71.6 |  | 91.7 |  | Other | 17\% | 1,611 | 1,380 |
| Trade payable payment period (DPO) | Days | 131.6 |  | 159.2 |  |  |  | 24,633 | 31,804 |
|  |  |  |  |  |  | Shareholders' equity | 16\% | 36,861 | 31,897 |
| Investment ratios |  |  |  |  |  | Total equity and liabilities | -9\% | 75,087 | 82,238 |
| Earnings per share (EPS) (Net Profit/Weighted Av No. of Shares) | £ | 928.10 |  | 579.70 |  |  |  |  |  |
| Price Earnings ratio (P/E) (Share price/EPS) | Times | 0.1 |  | 0.2 |  |  |  |  |  |
| Dividend cover (Net Profit/Dividends) | Times | 331 |  | 215 |  | Weighted Average number of shares outstanding | 5\% | 872,107,808 | 832,502,828 |
| Dividend yield (Dividend/Share Price) | \% | 3\% |  | 3\% |  | Share price | 5\% | 104.00 | 99.13 |
| Capital Gearing-Debt/Equity ratio (LT Debt/Equity) | Ratio | 0.3 |  | 0.5 |  | Market capitalization | 10\% | 90,699 | 82,526 |
| Interest cover (PBIT/Interest expenses) | Times | 4.4 |  | 6.0 |  | Dividend per share | 4\% | 2.80 | 2.70 |
| Other |  |  |  |  |  |  |  |  |  |
| Effective tax rate (Income tax expense/Income before tax) | \% | -29\% |  | -21\% | -23\% |  |  |  |  |
| R\&D as a \% of revenues (R\&D expense/Revenues) | \% | -13\% |  | -13\% | -9\% |  |  |  |  |
| Intangibles as a \% of total assets (Intangible assets/ Total assets) | \% | 35\% |  | 36\% |  |  |  |  |  |
| Intangibles as a \% of equity (Intangible assets/Equity) | \% | 72\% |  | 94\% |  |  |  |  |  |
| Market capitalization as a \% of Equity (Market Cap/Equity) |  | 246\% |  | 259\% |  |  |  |  |  |

## L'Oreal

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Nestlé

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## Unilever

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| Research assignment template |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company Unilever | \% Change |  | \% Change |  |  |  | \% Change | 31 December | 31 December |
|  | On PY | 2017 | On PY | 2016 | 2015 |  | On PY | 2017 | 2016 |
| Income Statement |  |  |  |  |  | Statement of financial position |  | $€$ millions | $€$ millions |
|  |  | $€$ millions |  | $€$ millions | $€$ millions | Non-current assets |  |  |  |
| Net sales | 2\% | 53,715 | -1\% | 52,713 | 53,272 | Goodwill | -4\% | 16,881 | 17,624 |
| Other revenues | \#DIV/0! |  | \#DIV/0! |  |  | Intangible assets | 17\% | 11,520 | 9,809 |
| Total revenues | 2\% | 53,715 | -1\% | 52,713 | 53,272 | Property, plant \& equipment | -11\% | 10,411 | 11,673 |
| Cost of sales | 1\% | $(27,306)$ | -2\% | $(26,983)$ | $(27,450)$ | Investments | 108\% | 2,848 | 1,367 |
| Gross profit | 3\% | 26,409 | 0\% | 25,730 | 25,822 | Deferred taxes | -20\% | 1,085 | 1,354 |
| Operating expenses | \#DIV/0! |  | \#Div/0! |  |  | Other | -22\% | 557 | 718 |
| Research \& development | -8\% | (900) | -3\% | (978) | $(1,005)$ |  | 2\% | 43,302 | 42,545 |
| Selling, general and administrative expenses | -2\% | $(16,652)$ | -2\% | $(16,951)$ | $(17,302)$ | Current assets |  |  |  |
| Depreciation, ammortization and provisions | \#DIV/0! |  | \#DIV/0! |  |  | Inventories/Long-term contracts | -7\% | 3,962 | 4,278 |
| Other income (expense) | \#DIV/0! |  | \#DIV/0! |  |  | Trade receivables | 2\% | 5,222 | 5,102 |
| Operating profit | 14\% | 8,857 | 4\% | 7,801 | 7,515 | Other current assets | 143\% | 488 | 317 |
| Finance income (expense) | 56\% | (877) | 14\% | (563) | (493) | Short-term investments | 454\% | 770 | 599 |
| Share of result of associated companies | -25\% | 173 | 17\% | 231 | 198 | Cash and cash equivalents | -2\% | 3,317 | 3,382 |
|  | 9\% | 8,153 | 3\% | 7,469 | 7,220 | Assets held for disposal | 1465\% | 3,224 | 206 |
| Income tax Net profit continuing operations | -13\% | $(1,667)$ | -2\% | $(1,922)$ | $(1,961)$ |  | 22\% | 16,983 | 13,884 |
|  | 17\% | 6,486 | 5\% | 5,547 | 5,259 |  |  |  |  |
| Discontinued operations | \#DIV/0! |  | \#DIV/0! |  |  | Total assets | 7\% | 60,285 | 56,429 |
| Net profit | 17\% | 6,486 | 5\% | 5,547 | 5,259 |  |  |  |  |
| Profitability |  |  |  |  |  |  |  |  |  |
| Gross margin (Gross profit/Revenues) | \% | 49\% |  | 49\% | 48\% | Current liabilities |  |  |  |
| Operating margin (Operating profit/Revenues) | \% | 16\% |  | 15\% | 14\% | Short-term Borrowings | 46\% | 7,968 | 5,450 |
| Net profit margin (Net profit/Revenues) | \% | 12\% |  | 11\% | 10\% | Trade payables | -3\% | 13,426 | 13,871 |
| Return on equity (Net profit/Shareholders' equity) | \% | 45\% |  | 33\% |  | Income taxes | 29\% | 1,088 | 844 |
| Return on Capital employed (PBIT/Shareholders' equity + Long-term debt) | \% | 29\% |  | 31\% |  | Provisions | 35\% | 525 | 390 |
|  |  |  |  |  |  | Other current liabilities | \#DIV/0! |  |  |
| Liquidity |  |  |  |  |  | Liabilities held for disposal | 16900\% | 170 | 1 |
| Current ratio (Current assets/Current liabilities) | Ratio:1 | 0.7 |  | 0.7 |  |  | 13\% | 23,177 | 20,556 |
| Quick ratio (Current assets - inventory/Current liabilities) | Ratio:1 | 0.6 |  | 0.5 |  |  |  |  |  |
|  |  |  |  |  |  | Non-current liabilities |  |  |  |
| Efficiency ratios |  |  |  |  |  | Long-term Borrowings | 48\% | 16,462 | 11,145 |
| Asset Turnover (Sales/Non-current assets) | Times | 1.2 |  | 1.2 |  | Provisions | -49\% | 794 | 1,033 |
| Inventory holding period (DOI) (Cost of sales/inventory $\times 365$ ) | Days | 53 |  | 58 |  | Deferred tax liabilities | -7\% | 1,913 | 2,061 |
| Inventory turnover (Cost of sales/inventory) | Times | 6.9 |  | 6.3 |  | Pensions and employee benefits | -29\% | 2,734 | 3,867 |
| Trade receivables collection period (DSO) | Days | 28.4 |  | 28.3 |  | Other | 4\% | 818 | 787 |
| Trade payable payment period (DPO) | Days | 143.6 |  | 150.1 |  |  |  | 22,721 | 18,893 |
|  |  |  |  |  |  | Shareholders' equity | -15\% | 14,387 | 16,980 |
| Investment ratios |  |  |  |  |  | Total equity and liabilities | 7\% | 60,285 | 56,429 |
| Earnings per share (EPS) (Net Profit/Weighted Av No. of Shares) | £ | 2.30 |  | 1.94 |  |  |  |  |  |
| Price Earnings ratio (P/E) (Share price/EPS) | Times | 20.5 |  | 24.4 |  |  |  |  |  |
| Dividend cover (Net Profit/Dividends) | Times | 0.86 |  | 0.82 |  | Weighted Average number of shares outstanding | -1\% | 2,814,000,000 | 2,853,900,000 |
| Dividend yield (Dividend/Share Price) | \% | 6\% |  | 5\% |  | Share price | 0\% | 47.20 | 47.40 |
| Capital Gearing-Debt/Equity ratio (LT Debt/Equity) | Ratio | 1.1 |  | 0.7 |  | Market capitalization | -2\% | 132,820,800,000 | 135,274,860,000 |
| Interest cover (PBIT/Interest expenses) | Times | 10.3 |  | 14.3 |  | Dividend per share | 14\% | 2.69 | 2.37 |
| Other |  |  |  |  |  |  |  |  |  |
| Effective tax rate (Income tax expense//Income before tax) | \% | -20\% |  | -26\% | -27\% |  |  |  |  |
| $R \& D$ as a \% of revenues (R\&D expense/Revenues) | \% | -2\% |  | -2\% | -2\% |  |  |  |  |
| Intangibles as a \% of total assets (Intangible assets/ Total assets) | \% | 47\% |  | 49\% |  |  |  |  |  |
| Intangibles as a \% of equity (Intangible assets/Equity) | \% | 197\% |  | 162\% |  |  |  |  |  |
| Market capitalization as a \% of Equity (Market Cap/Equity) | \% | 923\% |  | 797\% |  |  |  |  |  |

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## SM 3 Common size Analysis

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|  | Bayer | L'Oreal | LVMH | Nestlé | Shell | Unilever |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years ended 31 December 2017 | $€$ Millions | € Millions | $€$ Millions | CHF Millions | \$ Millions | € Millions |
| Profitability ratios |  |  |  |  |  |  |
| Return on capital employed (ROCE) | 13\% | 19\% | 22\% | 14\% | 8\% | 30\% |
| Gross margin | 67\% | 72\% | 65\% | 50\% | 19\% | 49\% |
| Operating margin | 17\% | 17\% | 19\% | 11\% | 5\% | 16\% |
| Net profit margin | 23\% | 14\% | 13\% | 8\% | 4\% | 12\% |
|  |  |  |  |  |  |  |
| Liquidity ratios |  |  |  |  |  |  |
| Current ratio | 2.2 | 1.2 | 1.4 | 0.9 | 1.2 | 0.7 |
| Quick ratio | 1.7 | 0.9 | 0.7 | 0.6 | 0.9 | 0.6 |
|  |  |  |  |  |  |  |
| Efficiency ratios |  |  |  |  |  |  |
| Asset turnover | 0.8 | 1.1 | 0.9 | 0.9 | 1.0 | 1.2 |
| Inventory holding period (DOI) | 210 | 124 | 269 | 74 | 37 | 53 |
| Trade receivables collection period (DSO) | 89 | 55 | 23 | 50 | 60 | 35 |
| Trade payables payment period (DPO) | 164 | 205 | 112 | 153 | 83 | 179 |
|  |  |  |  |  |  |  |
| Investment ratios |  |  |  |  |  |  |
| Earnings per share (EPS) | 9.3 | 6.4 | 11.1 | 2.4 | 1.6 | 2.3 |
| Price earnings (PE) | 11 | 29 | 22 | 34 | 41 | 21 |
| Dividend yield | 3\% | 2\% | 2\% | 3\% | 6\% | 5\% |
| Dividend cover | 3.3 | 1.8 | 2.2 | 1.0 | 0.4 | 0.9 |
| Capital gearing | 0.3 | 0.0 | 0.2 | 0.3 | 0.4 | 1.1 |
| Times interest cover | 3.8 | 77.2 | 68.8 | 14.4 | 5.5 | 8.9 |
|  |  |  |  |  |  |  |
| Other ratios |  |  |  |  |  |  |
| Effective tax rate | 29\% | 19\% | 29\% | 27\% | 26\% | 20\% |
| Market Capitalisation as a \% of Equity | 246\% | 417\% | 408\% | 409\% | 277\% | 958\% |
| R\&D as a \% Sales | 13\% | 3\% | 0\% | 2\% | 0\% | 2\% |
| Intangibles as a \% of equity | 72\% | 46\% | 100\% | 80\% | 12\% | 197\% |

## LIUC SM 4 Common Size Analysis

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## 2013 Data

2013 Data


Ratios
Profitability Gross Margin Operating margin Net profit margin Return on capital employed (ROCE Return on equity
Liquidity
Current ratio
Quick ratio
Efficiency
Asset turnover
Inventory holding period (DOI) Inventory turnover Trade receivables collection (DSO) Trade payables payment (DPO) Investment ratios Earning per share Price earnings ratio P/E Dividend cover Dividend yield Debt/Equity ratio (Gearing) Interest cover
Other
Effective tax rate
Intangibles as \% Total Assets Intangibles as \% of Equity R\&D as \% of Revenues

|  | $68 \%$ | $68 \%$ | $31 \%$ | $0 \%$ | $22 \%$ | $21 \%$ | $22 \%$ | $85 \%$ | $29 \%$ | $66 \%$ | $71 \%$ | $48 \%$ | $41 \%$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $7 \%$ | $19 \%$ | $-4 \%$ | $17 \%$ | $6 \%$ | $8 \%$ | $8 \%$ | $19 \%$ | $10 \%$ | $20 \%$ | $16 \%$ | $14 \%$ | $15 \%$ | $18 \%$ |
| $6 \%$ | $16 \%$ | $2 \%$ | $9 \%$ | $4 \%$ | $6 \%$ | $4 \%$ | $13 \%$ | $5 \%$ | $14 \%$ | $13 \%$ | $11 \%$ | $11 \%$ | $14 \%$ |
| $9 \%$ | $7 \%$ | $0 \%$ | $4 \%$ | $5 \%$ | $8 \%$ | $11 \%$ | $3 \%$ | $5 \%$ | $7 \%$ | $9 \%$ | $9 \%$ | $12 \%$ | $17 \%$ |
| $15 \%$ | $12 \%$ | $1 \%$ | $18 \%$ | $9 \%$ | $18 \%$ | $8 \%$ | $7 \%$ | $12 \%$ | $14 \%$ | $13 \%$ | $16 \%$ | $36 \%$ | $26 \%$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.24 | 1.16 | 0.75 | 1.00 | 1.11 | 1.33 | 1.60 | 1.72 | 1.37 | 1.37 | 1.42 | 0.91 | 0.70 | 1.95 |
| 0.83 | 0.88 | 0.73 | 0.97 | 0.79 | 0.93 | 1.40 | 1.61 | 1.01 | 0.64 | 1.09 | 0.66 | 0.47 | 1.47 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.38 | 0.46 | 0.31 | 0.48 | 1.26 | 1.24 | 1.40 | 0.29 | 0.99 | 0.52 | 0.73 | 0.77 | 1.09 | 1.22 |
| 103 | 135 | 5 |  | 31 | 36 | 32 | 101 | 48 | 312 | 119 | 64 | 49 |  |
| 3.54 | 7.97 | 98.77 | 57.93 | 15.04 | 12.97 | 11.40 | 22.90 | 10.71 | 3.39 | 10.64 | 10.99 | 12.65 | 9.97 |
| 60 | 52 | 64 | 51 | 43 | 32 | 91 | 109 | 30 | 23 | 43 | 40 | 30 |  |
| 62 | 114 | 194 |  | 72 | 58 | 95 | 681 | 65 | 120 | 185 | 122 | 146 | 17 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.3 | 3.76 | 0.87 | 1.01 | 2.60 | 123.87 | 1.42 | 64.8 | 3.73 | 6.87 | 5.13 | 3.14 | 1.71 | 3.81 |
| 16.80 | 18.94 | 214.48 | 11.72 | 27.41 | 17.46 | 12.30 | 0.20 | 11.94 | 19.30 | 24.89 | 20.57 | 37.40 | 29.06 |
| 1.77 | 1.53 | 0.09 | 2.89 | 1.44 | 5.29 | 1.29 | 2.25 | 1.57 | 2.29 | 2.05 | 1.46 | 1.63 | 1.57 |
| $3 \%$ | $3 \%$ | $5 \%$ | $3 \%$ | $3 \%$ | $1 \%$ | $6 \%$ | $1 \%$ | $5 \%$ | $2 \%$ | $2 \%$ | $3 \%$ | $2 \%$ | $2 \%$ |
| 0.65 | 0.15 | 0.40 | 1.86 | 0.20 | 0.31 | 0.31 | 0.53 | 0.33 | 0.15 | 0.00 | 0.16 | 0.51 | 0.00 |
| 1,170 | 13 | 1 | 1 | 19 | 19 | 9 | 33 | 31 | 28 | 93 | 21 | 12 | 169 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $28 \%$ | $13 \%$ | $79 \%$ | $21 \%$ | $51 \%$ | $21 \%$ | $64 \%$ | $43 \%$ | $56 \%$ | $31 \%$ | $26 \%$ | $24 \%$ | $26 \%$ | $22 \%$ |
| $23 \%$ | $47 \%$ | $37 \%$ | $35 \%$ | $1 \%$ | $11 \%$ | $3 \%$ | $6 \%$ | $8 \%$ | $38 \%$ | $29 \%$ | $36 \%$ | $46 \%$ | $6 \%$ |
| $80 \%$ | $79 \%$ | $72 \%$ | $153 \%$ | $2 \%$ | $26 \%$ | $7 \%$ | $12 \%$ | $18 \%$ | $77 \%$ | $40 \%$ | $68 \%$ | $141 \%$ | $9 \%$ |
| $6 \%$ | $17 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $4 \%$ | $2 \%$ | $0 \%$ | $0 \%$ |

$N: B$ : Even though all these companies are of varying sizes and the underlying data is in the reporting currency of each of the companies i.e $€, \$, £, C H F, S E K$, they can easily be compared using these ratios

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## SUMMARY, VALIDATION AND PREWORK SESSION 4

## Sessions 3 Summary

- Financial analysis, ratio analysis, trend analysis, common size analysis
- Earnings per share
- Segmental analysis
- Importance of industry context and understanding


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## Session 4 Pre-work

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- Reading
- Melville Chapters23,24
- IAS 33
- IFRS 8
- Exercises
- Melville
- Textbook Chapters 23, 24
- Website Multiple choice Chapters 23, 24
- Course exercises EX3


## Session 4 Review

Trova il futuro che ti cerca.

- Reading
- Melville Chapters 1,2,3,4,8,21,22
- IAS 1
- Exercises
- Melville
- Textbook Chapters 3,22
- Website Multiple choice Chapters 1,2,3,4,21,22
- Course exercises Ex1,EX2


## Session Validation

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- How is earnings per share calculated?
- When is it necessary to calculated the weighted average number of shares outstanding?
- What do we mean by "diluted" earnings per share?
- What is an Operating Segment?
- What is a Reportable Segment?
- What disclosures are required by IFRS 8?

