Finance Management & Planning

Financial Ratios – Continued

This Week

- Recap of Last week
  - Profitability Ratios
- This Week
  - Liquidity Ratios
  - Activity / Efficiency Ratios
  - Assignment Layout

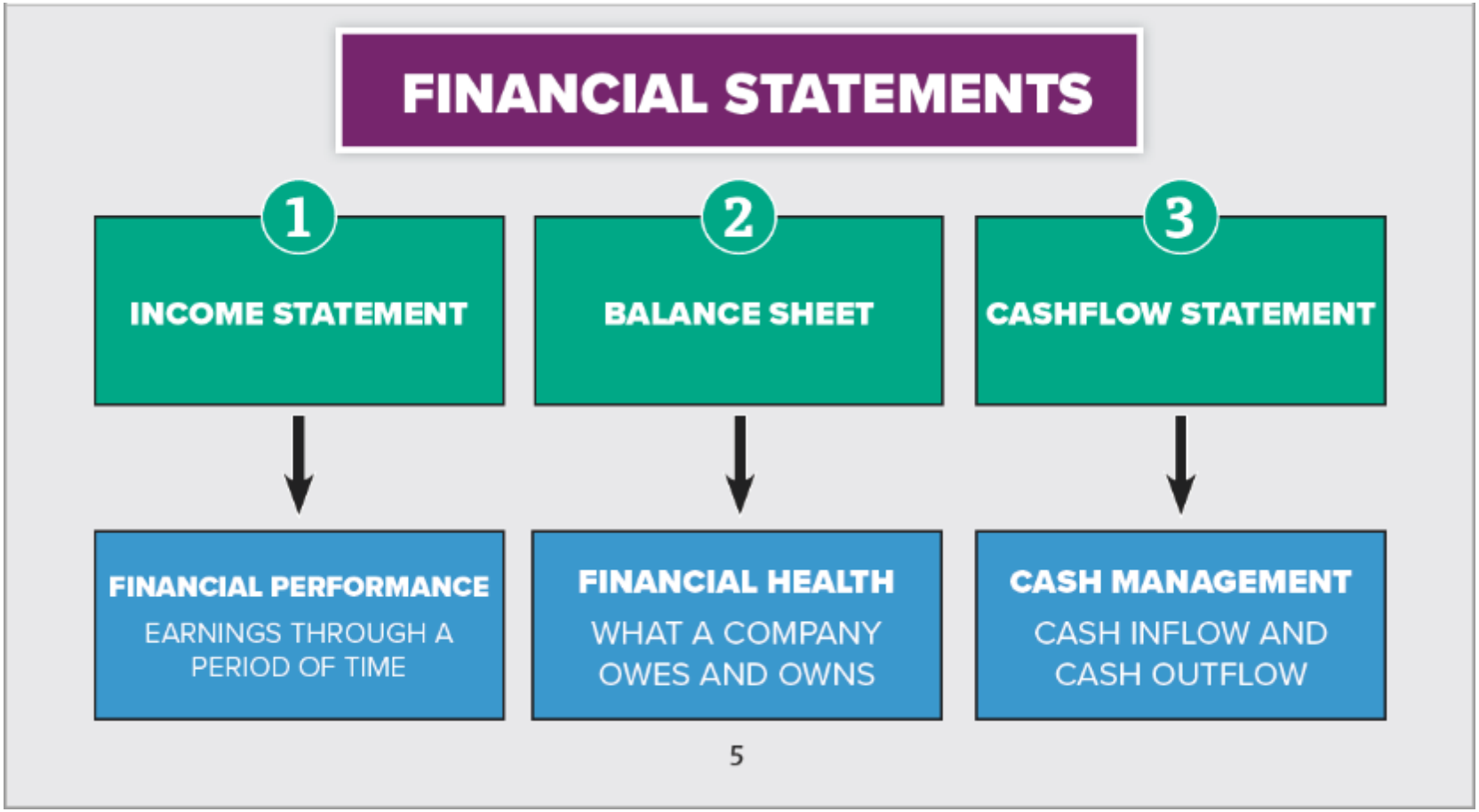
Financial Ratios

Statistical Information within your business

https://www.bwf.com/published-by-bwf/client-advisory-effective-use-of-fundraising-metrics/

The Financial Statements

Financial statements measure the financial health of the organisation:

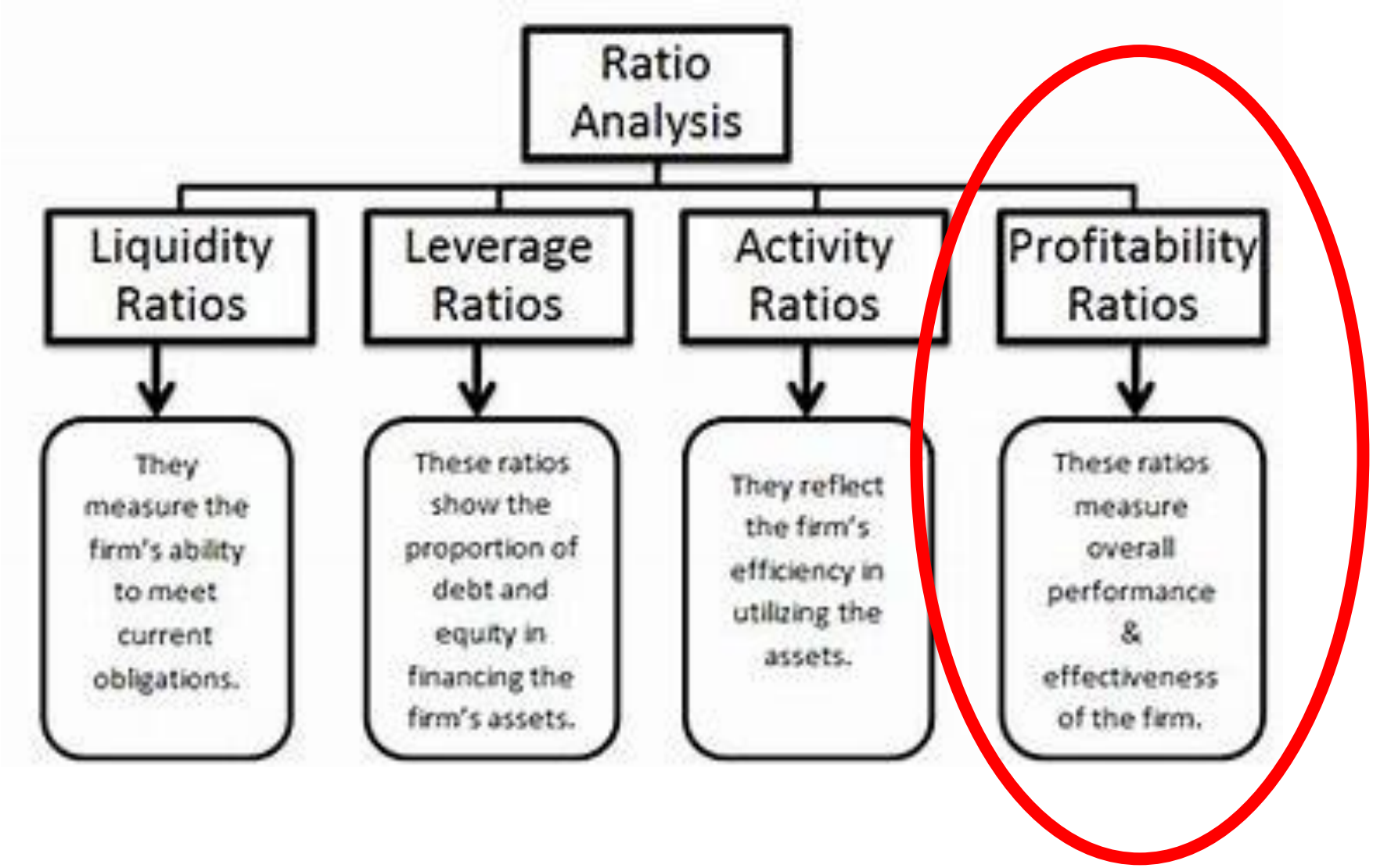


Financial Ratio Classifications

- Grouped into categories relating to a particular aspect of financial performance or position.
  - Profitability
  - Efficiency
  - Liquidity
  - Financial Gearing
  - Investment (of more interest to external stakeholders)

- Atrill & McLaney chapter: 6
  - Analysing and interpreting financial statements

Financial Ratios



Profitability Ratios Formula

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}} \times 100$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Assets}} \times 100$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

Financial Ratios

GROUP INCOME STATEMENT

	Note	52 weeks to 27 March 2021 £m	52 weeks to 28 March 2020 £m
Revenue	3	**2,343.9**	2,633.1
Cost of sales		**(681.4)**	(927.6)
Gross profit		**1,662.5**	1,705.5
Net operating expenses	4	**(1,141.4)**	(1,516.8)
Operating profit		**521.1**	188.7
Financing			
Finance income		**3.1**	7.6
Finance expense		**(33.3)**	(26.6)
Other financing charge		**(0.7)**	(1.2)
Net finance expense	8	**(30.9)**	(20.2)
Profit before taxation	5	**490.2**	168.5
Taxation	9	**(114.3)**	(46.9)
Profit for the year		**375.9**	121.6
Attributable to:			
Owners of the Company		**375.7**	121.7
Non-controlling interest		**0.2**	(0.1)
Profit for the year		**375.9**	121.6

Financial Ratios

	Note	As at 27 March 2021 £m	As at 28 March 2020 £m
ASSETS			
Non-current assets			
Intangible assets	12	**237.0**	247.0
Property, plant and equipment	13	**280.4**	294.9
Right-of-use assets	14	**818.1**	834.0
Investment properties		**2.4**	2.5
Deferred tax assets	15	**137.1**	171.5
Trade and other receivables	16	**45.0**	53.7
		1,520.0	1,603.6
Current assets			
Inventories	17	**402.1**	450.5
Trade and other receivables	16	**276.9**	252.1
Derivative financial assets	18	**2.2**	6.7
Income tax receivables		**39.7**	50.4
Cash and cash equivalents	19	**1,261.3**	928.9
		1,982.2	1,688.6
Total assets		**3,502.2**	3,292.2
LIABILITIES			
Non-current liabilities			
Trade and other payables	20	**(99.4)**	(102.3)
Lease liabilities	21	**(809.6)**	(910.0)
Borrowings	24	**(297.1)**	(300.0)
Deferred tax liabilities	15	**(0.8)**	(0.1)
Retirement benefit obligations		**(1.0)**	(1.9)
Provisions for other liabilities and charges	22	**(31.8)**	(28.6)
		(1,239.7)	(1,342.9)
Current liabilities			
Trade and other payables	20	**(392.9)**	(447.5)
Bank overdrafts	23	**(45.4)**	(41.6)
Lease liabilities	21	**(210.0)**	(215.5)
Derivative financial liabilities	18	**(2.6)**	(4.8)
Income tax liabilities		**(27.9)**	(7.9)
Provisions for other liabilities and charges	22	**(24.0)**	(13.2)
		(702.8)	(730.5)
Total liabilities		**(1,942.5)**	(2,073.4)
Net assets		**1,559.7**	1,218.8
EQUITY			
Capital and reserves attributable to owners of the Company			
Ordinary share capital	25	**0.2**	0.2
Share premium account		**223.0**	220.8
Capital reserve	25	**41.1**	41.1
Hedging reserve	25	**4.7**	4.7
Foreign currency translation reserve	25	**196.4**	245.2
Retained earnings		**1,091.2**	702.2
Equity attributable to owners of the Company		**1,556.6**	1,214.2
Non-controlling interest in equity		**3.1**	4.6
Total equity		**1,559.7**	1,218.8

Financial Ratios

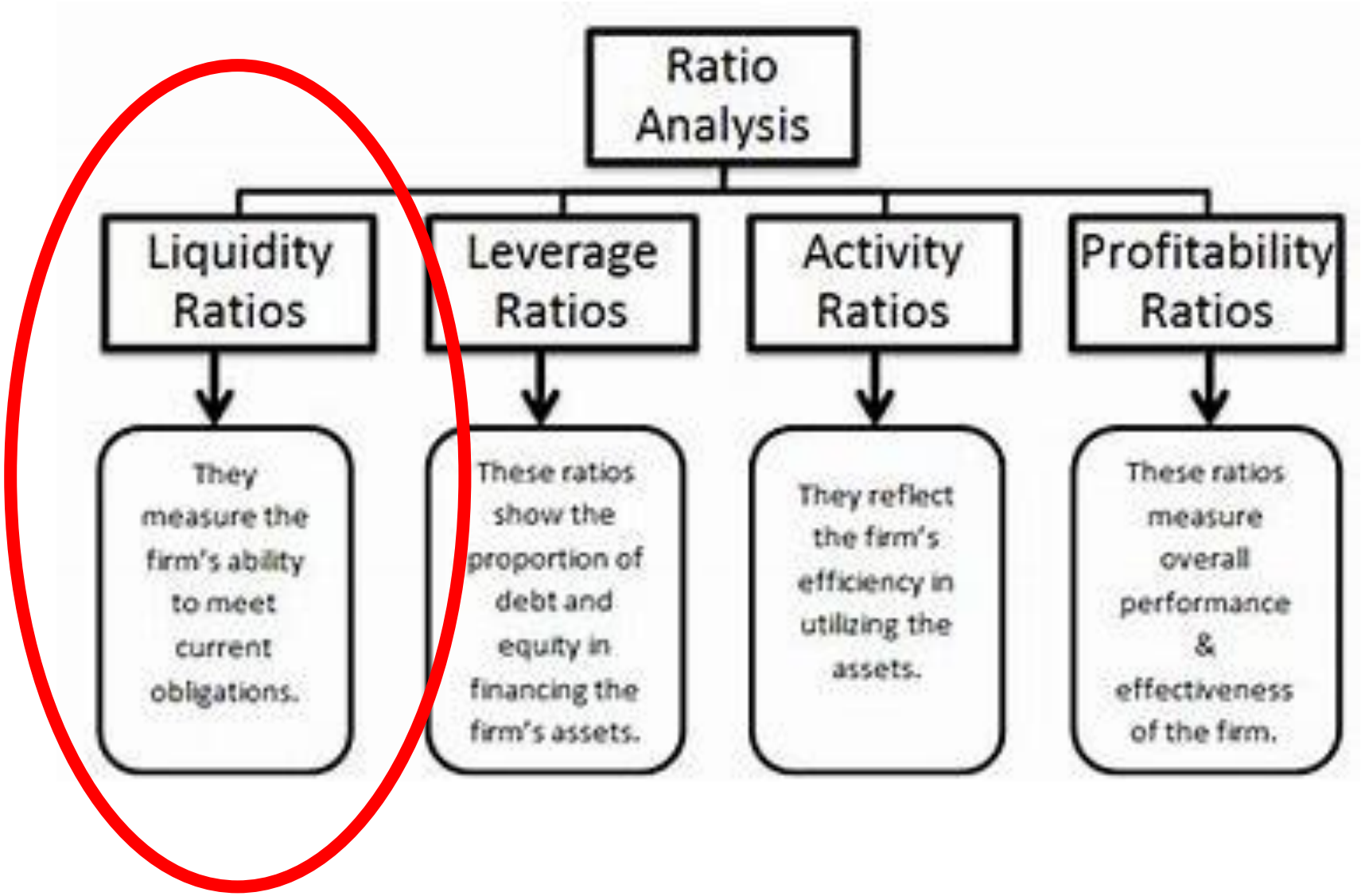
Return Ratios for Burberry

Burberry Financial Ratios

	2021	2020
Revenue	2,343.90	2,633.10
Gross Profit	1,662.50	1,705.50
Operating Profit	521.10	188.70
Profit for the Year	375.90	121.60
Total Assets	3,502.20	3,292.20
Total Shareholder Equity	1,559.70	1,218.80

Gross Profit %	71%	65%
Operating Profit %	22%	7%
Net Profit Margin %	16%	5%
Return on Assets	11%	4%
Return on Equity	24%	10%

Financial Ratios



Financial Ratios

Why is Liquidity important to a company / Investor / Supplier ?

- 1. Liquidity ratios determine a company's ability to cover short-term obligations and cash flows.
- 2. Determine creditworthiness
- 3. Determine investment worthiness

Financial Ratios

Refresh of Terms

Current Assets made up of

- Stock
- Cash and Cash Equivalents
- Market Securities
- Debtors
- Prepayments

Current Liabilities made up of

- Creditors
- Cash and Cash Equivalents
- Accrued Liabilities

Liquidity Ratios

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

Quick Ratios (or Acid Test Ratio) $= \dfrac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$

Cash Ratio $= \dfrac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$

Consider :-

Current Ratio – Low Test Level
Quick Ratio – Medium Test Level
Cash Ratio – High Test Level

Liquidity Ratios

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

The Current Ratio is used to measure whether a company's short-term assets cover the value of our short term liabilities

Financial Ratios

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	**75,000**
Total Assets	**175,000**
Creditors	50,000
Accurals	10,000
Current Liabilities	**60,000**
Long Term Liabilities	50,000
Total Liabilities	**110,000**
Net Assets	**65,000**
Ordinary Shares	60,000
Retained Earnings	5,000
Shareholders Equity	**65,000**

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

Current Assets	£75,000
Current Liabilities	£60,000
Current Ratio	1.25

Liquidity Ratios

Quick Ratios (or Acid Test Ratio) $= \dfrac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$

The Quick Ratio excludes stock as this still needs to be turned into a saleable item or sold to a customer and is not classed as “near cash”.

Financial Ratios

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	**75,000**
Total Assets	**175,000**
Creditors	50,000
Accurals	10,000
Current Liabilities	**60,000**
Long Term Liabilities	50,000
Total Liabilities	**110,000**
Net Assets	**65,000**
Ordinary Shares	60,000
Retained Earnings	5,000
Shareholders Equity	**65,000**

Quick Ratios (or Acid Test Ratio) $= \dfrac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$

Current Assets	£55,000
Current Liabilities	£60,000
Quick Ratio	0.92

Liquidity Ratios

$$\textbf{Cash Ratio} = \frac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$$

The Cash Ratio is the sternest test as it just tests against the liquid current assets.

Cash and Cash Equivalents includes Cash / Bank and Marketable Securities.

Financial Ratios

Balance Sheet	
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Cash Ratio $= \dfrac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$

Cash and Equiv.	£20,000
Current Liabilities	£60,000
Cash Ratio	0.33

Financial Ratios

Balance Sheet				
Year	2017	2018	2019	2020
Fixed Assets	100,000	90,000	80,000	70,000
Stock	20,000	30,000	50,000	60,000
Cash and Cash Equivalents	20,000	15,000	10,000	8,200
Debtors	30,000	25,000	20,000	30,000
Other Current Assets	5,000	10,000	10,000	10,000
Current Assets	**75,000**	**80,000**	**90,000**	**108,200**
Total Assets	**175,000**	**170,000**	**170,000**	**178,200**
Creditors	50,000	35,000	33,000	33,000
Accurals	10,000	10,000	5,000	2,000
Current Liabilities	**60,000**	**45,000**	**38,000**	**35,000**
Long Term Liabilities	50,000	45,000	40,000	35,000
Total Liabilities	**110,000**	**90,000**	**78,000**	**70,000**
Net Assets	**65,000**	**80,000**	**92,000**	**108,200**
Current Ratio	1.25	1.78	2.37	3.09
Quick Ratio	0.92	1.11	1.05	1.38
Cash Ratio	0.33	0.33	0.26	0.23

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

Quick Ratios (or Acid Test Ratio) $= \dfrac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$

Cash Ratio $= \dfrac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$

Financial Ratios

Calculate the Liquidity Ratios for Burberry

	Note	As at 27 March 2021 £m	As at 28 March 2020 £m
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Total liabilities		**(1,942.5)**	(2,073.4)
Net assets		**1,559.7**	1,218.8

Financial Ratios

Burberry Financial Ratios

	2021	2020
Revenue	2,343.90	2,633.10
Cost of Sales	681.40	927.60
Gross Profit	1,662.50	1,705.50
Operating Profit	521.10	188.70
Profit for the Year	375.90	121.60
Total Assets	3,502.20	3,292.20
Total Shareholder Equity	1,559.70	1,218.80
Current Assets	1,982.20	1,688.60
Current Liabilities	702.80	730.50
Inventories / Stock	402.10	450.50
Trade and other Receivables	321.90	305.80
Trade and other Payables	492.30	549.80
Cash And Cash Equivalents	1,263.50	935.60

Gross Profit %	71%	65%
Operating Profit %	22%	7%
Net Profit Margin %	16%	5%
Return on Assets	11%	4%
Return on Equity	24%	10%
Current Ratio	2.82	2.31
Liquid Ratio	2.25	1.69
Cash Ratio (With)	1.80	1.28
Cash Ratio (Without)	1.79	1.27

Liquidity Ratios

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

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Cash Ratio $= \dfrac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$

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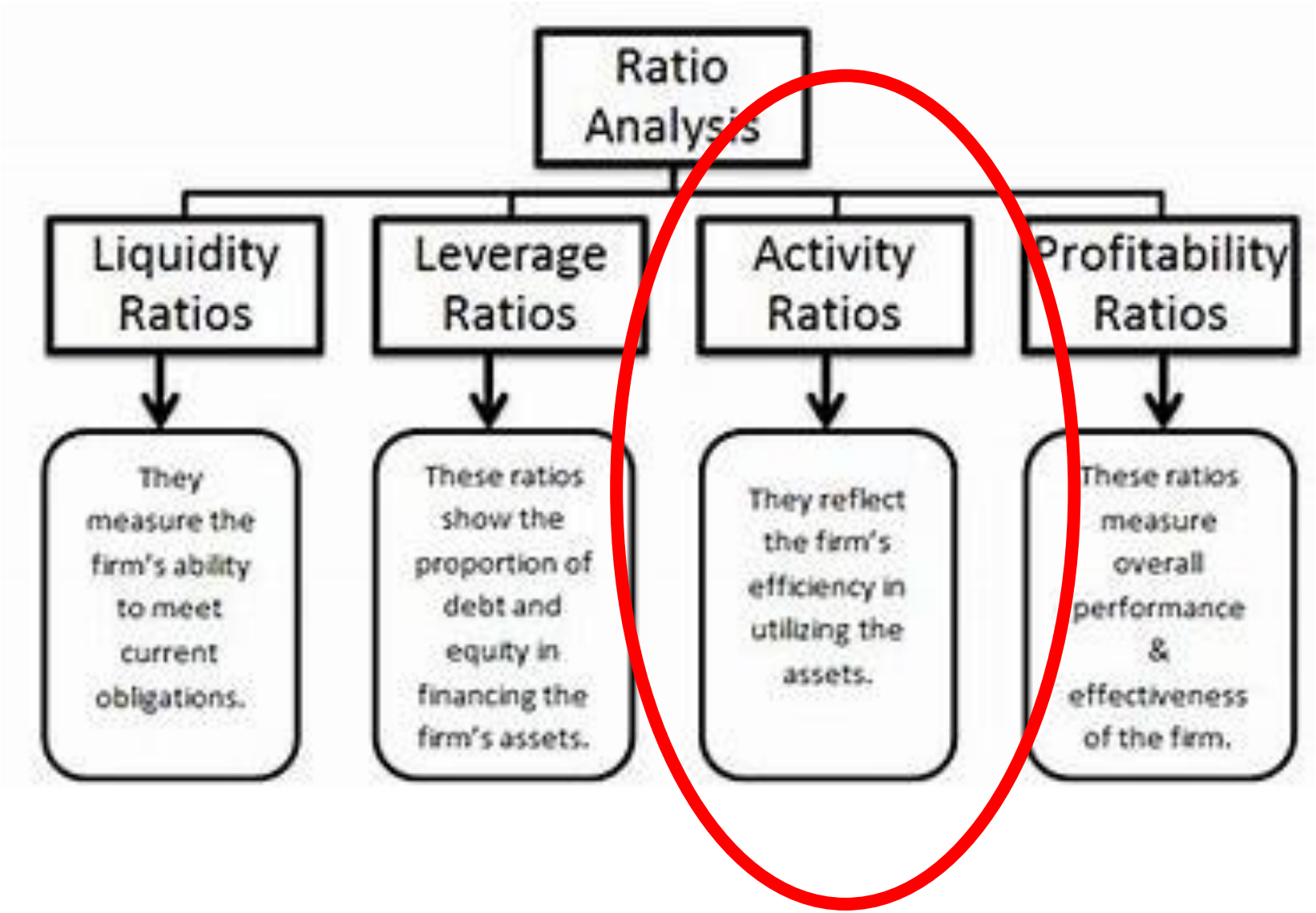
Financial Ratios



Activity Ratios

Days Sales Outstanding (DSO) $= \dfrac{\text{Trade and other receivables}}{\text{Average Revenue per Day}}$

Inventory Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory / Stock}}$

Days Payable Outstanding (DPO) $= \dfrac{\text{Trade and other payables}}{\text{Average COGS per day}}$

Where **Average Revenue per Day** $= \dfrac{\text{Annual Revenue}}{365}$

Where **Average COGS per Day** $= \dfrac{\text{Annual COGS}}{365}$

Financial Ratios

Year	2017
Revenue	100,000
COGS	80000
Gross Profit	20000
Gross Margin %	20.0%
SG&A	10000
Operating Profit	10000
Operating Profit %	10.0%
Interest	3000
Tax	2000
Net Income	5,000
Net Profit %	5.0%

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Trade and Other Receivables	30,000
Other Current Assets	5,000
Current Assets	**75,000**
Total Assets	**175,000**
Trade and Other Payables	50,000
Accurals	10,000
Current Liabilities	**60,000**
Long Term Liabilities	50,000
Total Liabilities	**110,000**
Net Assets	**65,000**

Days Sales Outstanding (DSO) $= \dfrac{\text{Trade and other receivables}}{\text{Average Revenue per Day}}$

Days Sales Outstanding (DSO) $= \dfrac{30{,}000}{273.97}$

Days Sales Outstanding (DSO) = **109.5 Days**

So what does this mean ?

How could the business improve this ?

Financial Ratios

Year	2017
Revenue	100,000
COGS	80000
Gross Profit	20000
Gross Margin %	20.0%
SG&A	10000
Operating Profit	10000
Operating Profit %	10.0%
Interest	3000
Tax	2000
Net Income	5,000
Net Profit %	5.0%

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Trade and Other Receivables	30,000
Other Current Assets	5,000
Current Assets	**75,000**
Total Assets	**175,000**
Trade and Other Payables	50,000
Accurals	10,000
Current Liabilities	**60,000**
Long Term Liabilities	50,000
Total Liabilities	**110,000**
Net Assets	**65,000**

Inventory Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$

Inventory Turnover $= \dfrac{80{,}000}{20{,}000} =$ **4 Turns per Year**

4 turns a year equates to stock being refreshed every 91 days

So what does this mean ?

How could the business improve this ?

Financial Ratios

Year	2017
Revenue	100,000
COGS	80000
Gross Profit	20000
Gross Margin %	20.0%
SG&A	10000
Operating Profit	10000
Operating Profit %	10.0%
Interest	3000
Tax	2000
Net Income	5,000
Net Profit %	5.0%

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
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Current Liabilities	**60,000**
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Total Liabilities	**110,000**
Net Assets	**65,000**

$$\textbf{Days Payable Outstanding (DPO)} = \frac{\text{Trade and other payables}}{\text{Average COGS per day}}$$

$$\textbf{Days Payable Outstanding (DPO)} = \frac{50{,}000}{219.18}$$

$$\textbf{Days Payable Outstanding (DPO)} = \textbf{228.13 Days}$$

So what does this mean ?

How could the business improve this ?

Financial Ratios

Year	2017	2018	2019	2020
Revenue	100,000	150,000	165,000	180,000
COGS	80000	110000	120000	128000
Gross Profit	20000	40000	45000	52000
Gross Margin %	20.0%	26.7%	27.3%	28.9%
SG&A	10000	15000	25000	25000
Operating Profit	10000	25000	20000	27000
Operating Profit %	10.0%	16.7%	12.1%	15.0%
Interest	3000	2800	2500	2500
Tax	2000	7200	5500	8300
Net Income	5,000	15,000	12,000	16,200
Net Profit %	5.0%	10.0%	7.3%	9.0%

Balance Sheet				
Year	2017	2018	2019	2020
Fixed Assets	100,000	90,000	80,000	70,000
Stock	20,000	30,000	50,000	60,000
Cash and Cash Equivalents	20,000	15,000	10,000	8,200
Trade and Other Receivables	30,000	25,000	20,000	30,000
Other Current Assets	5,000	10,000	10,000	10,000
Current Assets	**75,000**	**80,000**	**90,000**	**108,200**
Total Assets	**175,000**	**170,000**	**170,000**	**178,200**
Trade and Other Payables	50,000	35,000	33,000	33,000
Accurals	10,000	10,000	5,000	2,000
Current Liabilities	**60,000**	**45,000**	**38,000**	**35,000**
Long Term Liabilities	50,000	45,000	40,000	35,000
Total Liabilities	**110,000**	**90,000**	**78,000**	**70,000**
Net Assets	**65,000**	**80,000**	**92,000**	**108,200**

Days Sales Outstanding (DSO) $= \dfrac{\text{Accounts Receivable (i.e. Debtors)}}{\text{Average Revenue per Day}}$

Inventory Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$

Days Payable Outstanding (DPO) $= \dfrac{\text{Accounts Payable (i.e. Creditors)}}{\text{Average COGS per day}}$

Calculate the above formulae for 2018 , 2019 and 2020.

Remember the average inventory is current year and prior year.

Financial Ratios

Ratio's Calculated today

Year	2017	2018	2019	2020
Current Ratio	1.25	1.78	2.37	3.09
Quick Ratio	0.92	1.11	1.05	1.38
Cash Ratio	0.33	0.33	0.26	0.23
Days Sales Outstanding	109.50	60.83	44.24	60.83
Inventory Turns	4.00	4.40	3.00	2.33
Days Payable Outstanding	228.13	116.14	100.38	94.10

Financial Ratios

Calculate the Activity Ratios for Burberry

	Note	As at 27 March 2021 £m	As at 28 March 2020 £m
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Intangible assets	12	**237.0**	247.0
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Net assets		**1,559.7**	1,218.8

Financial Ratios

Assignment Layout ?

Next Week

New Articles posted in Teams additional Resources

- Next Week
  - Leverage Ratios
  - Investor Ratios