

Financial Management

LCMB7002



Prifysgol Cymru

Y Drindod Dewi Sant

University of Wales

Trinity Saint David

Student Name: Kavya Kalpeshbhai Vashi

Student Number: 2333681

Lecturer: M D Kalam

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Part A: INTRODUCTION

Overview of the Organisation and Business Model

BP PLC or British Petroleum is one of the Global gas and oil companies which has the headquarter in London, UK. This was established in 1909 as the 'Anglo-Persian Oil Company' (BP, 2024). BP has increased as one of the oil and gas 'supermajors' throughout the world following its operating revenue by '210.13 billion U.S. dollars' in the year 2023 as per the below figure.

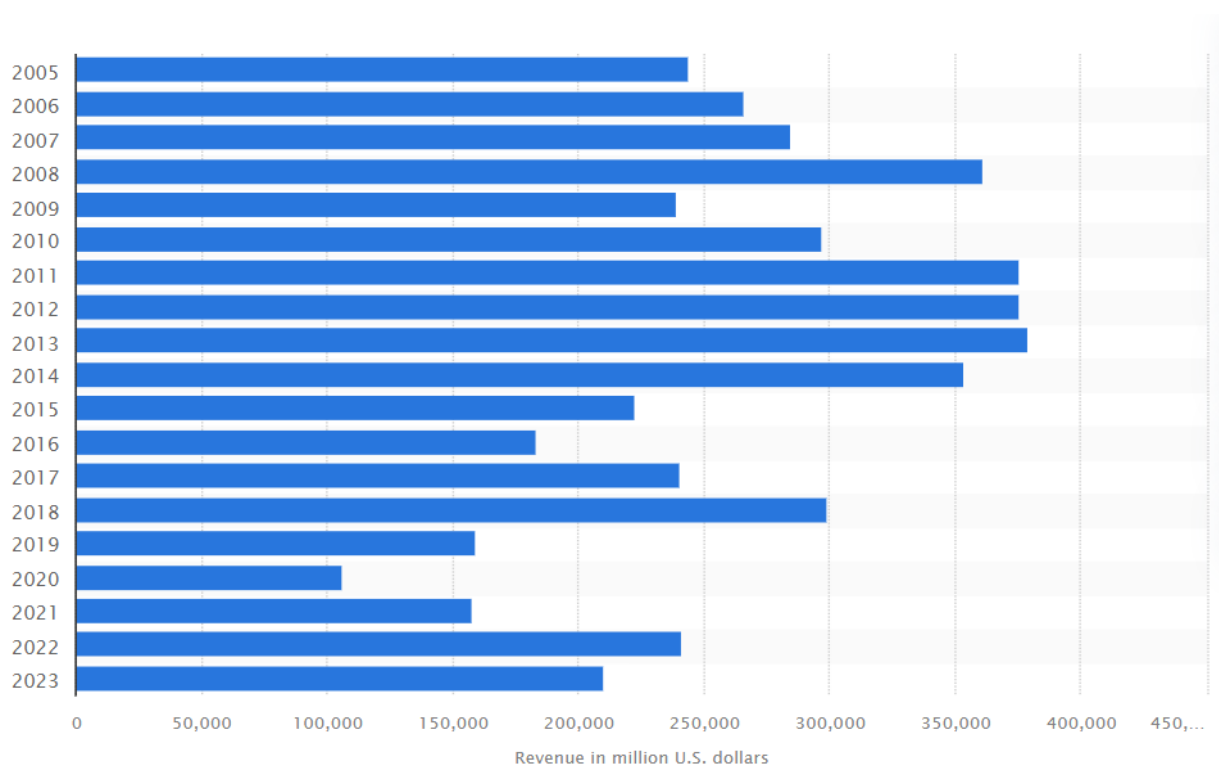


Figure 1: BP's Operating revenue from 2005 to 2023

(Source: Statista, 2024)

The business model of BP PLC is primarily based on the production, distribution, exploration, defining, and marketing of gas and oil. However, the organisation also invests in renewable energy sources as well as technologies completely aligned with the international shift toward the cleaner energy sources.

Major Competitors and Marketplace

BP PLC operates in the highly competitive international marketplace in which it competes with the other gas and oil giants such as Royal Dutch Shell, ExxonMobil, TotalEnergies, and Chevron by distributing more than \$100bn despite public outrage (The Guardian, 2024). These are the companies which operate for market share in several segments including downstream like marketing and refining, upstream like production and exploration, as well as emerging markets of renewable energy. Competition in between them is completely extended for securing the gas and oil reserves, expansion of market within the emerging economies, along with technological innovation.

Major Recent Events that Impact on the Organisational Performance

In this section, the major events of BP PLC in the last five years such as from the year 2019 to 2023 which can change their organisational performance, are as followed -

Change of Directors: In the year 2020, in February, Bernard Looney was appointed as the new Chief Executive Officer in BP (Atlantic Council, 2021). The leadership of Bernard Looney is marked as a significant strategic shift particularly for BP PLC emphasising the commitment of the organisation in becoming a net zero organisation by 2050 (BP, 2020). This change in leadership came with an effective reorganisation of the structure of the company completely focused on the integration of traditional gas and oil operations with the initiatives of renewable energy.

Financial Performance and Profit Warning: BP issued a warning in profit due to the unprecedented impact of the coronavirus pandemic throughout the world oil demand in 2020. First a sharp declaration in oil prices that leads towards the significant financial loss by \$20.3 billion for the year that is completely driven by write-downs and impairments on assets of BP (BP, 2021). Despite this setback, the organisation managed to stabilise their financial position by strategic divestments and cost-cutting measures.

Legal Issues: As a part of this, in 2010, the claims' settlement related to the Deepwater Horizon oil spill is one of the notable issues which is resolved by \$1.3 billion in 2020 through outstanding property and economic claims of damage (Sedlar, 2024). While it helped BP to

close a significant legal battles' chapter, it also portrayed the long term reputational and financial impact of the disaster.

Mergers and Acquisitions: In the year 2021, BP acquired a stake of 50% in Equinor's U.S. offshore wind assets, marking as a significant factor in their renewable energy transition (BP, 2021) aligning with BP's strategy in diversifying their overall energy mix along with minimising the carbon footprint.

Strategic Changes: BP has announced a significant no strategy in the year 2020 under the leadership of Bernard Looney, which is focused on the low carbon energy as well as minimising the hydrocarbon production (Li et al., 2022). In addition to this, the organisation is completely aimed at increasing their capacity of renewable energy to 50 gigawatts by the year 2030 following the investment of \$5 billion annually in the low-carbon energy field (Greentech Media, 2020). This portrays their plan of oil and gas production reduction by 40% by 2030 as well.

PART B: FINANCIAL PERFORMANCE REVIEW

Ratio calculation

BP PLC

		2023	2022	2021	2020	2021
Liquidity Ratios						
Current Ratio	(Current Assets / Current Liabilities)	1.21	1.08	1.14	1.2	1.01
Quick Ratio	(Current Assets - Inventories) / Current Liabilities	0.85	0.73	0.8	0.9	0.68
Cash Ratio	Cash and Cash equivalent / Current Liabilities	0.38	0.3	0.38	0.05	0.31
Efficiency	Days					
Days of Sales Outstanding (DSO)	(Average Receivables / Net Revenue) x 365	53	50	60	36	32
Days of Inventory on Hand (DOI)	(Average Inventory / Cost of Sales) x 365	45	44	59	30	28
Days of Payables (DOP)	(Average Payables / Cost of Sales) x 365	120	101	131	64	63
Profitability Ratios	%					
'Gross Profit Margin' (GPM)	('Gross Profit / Revenue')	13%	7%	11%	-12%	4%
'Net Profit Margin' ('NPM')	('Net Income' / 'Revenue')	7%	-1%	5%	-11%	1%

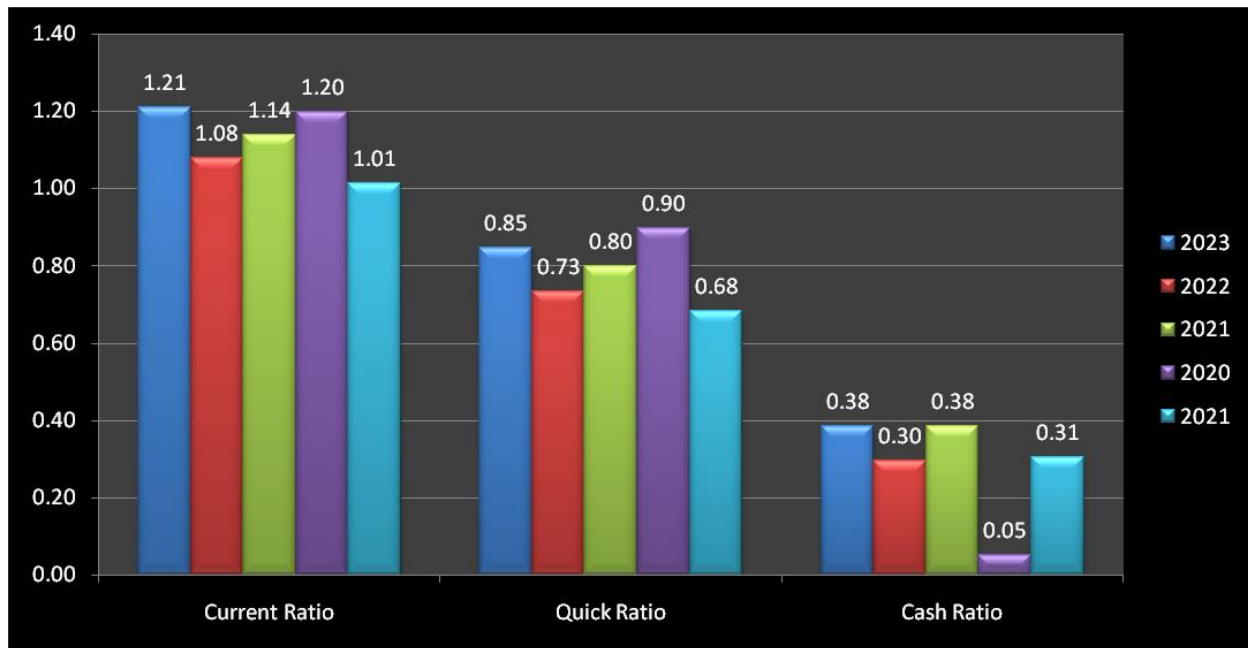
'Return on Capital Employed' (ROCE)	('operating Average Total profit/ Average Capital employed')	12%	8%	7%	-12%	4%
'Return on Equity' (ROE)	('Net Income / Average Equity')	19%	-2%	9%	-24%	4%
Return on Assets (ROA)	(Net income / Average total assets)	6%	0%	3%	-8%	1%
'Leverage Ratios'						
'Debt-to-Equity Ratio' (D/E)	('Total Debt / Total Equity')	0.57	0.53	0.61	0.74	0.57
'Debt-to-Assets Ratio'	('Total Debt / Total Assets')	0.17	0.15	0.19	0.24	0.19
'Gearing'	('Total debt / (Total debt+Total Equity')	36%	35%	38%	43%	36%
Interest Coverage	(EBIT / Interest)	7.12	6.67	6.33	-6.98	3.36
Notes	Current Assets	£ 1,03,9 95.00	£ 1,06,4 46.00	£ 90,938 .00	£ 71,656 .00	£ 74,594 .00
	Current Liabilities	£ 86,016 .00	£ 98,697 .00	£ 79,928 .00	£ 59,799 .00	£ 73,595 .00
	Inventories	£ 22,819 .00	£ 28,081 .00	£ 23,711 .00	£ 16,873 .00	£ 20,880 .00
	Cash	£ 33,030 .00	£ 29,195 .00	£ 30,681 .00	£ 3,111. 00	£ 22,472 .00
	Accounts Receivables	£ 31,123 .00	£ 34,010 .00	£ 27,139 .00	£ 17,948 .00	£ 24,442 .00
	Net Revenue	£ 2,13,0	£ 2,48,8	£ 1,64,1	£ 1,83,5	£ 2,82,6

		32.00	91.00	95.00	00.00	16.00
	Cost of Sales	£ 1,85,6 84.00	£ 2,30,8 52.00	£ 1,46,1 13.00	£ 2,05,2 40.00	£ 2,70,9 10.00
	Accounts Payables	£ 61,155 .00	£ 63,984 .00	£ 52,611 .00	£ 36,014 .00	£ 46,829 .00
	Gross Profit	£ 27,348 .00	£ 18,039 .00	£ 18,082 .00	-£ 21,740 .00	£ 11,706 .00
	Net Profit	£ 15,880 .00	-£ 1,357. 00	£ 8,487. 00	-£ 20,729 .00	£ 4,190. 00
	Operating Profit	£ 23,749 .00	£ 15,405 .00	£ 15,227 .00	-£ 24,888 .00	£ 8,154. 00
	Capital Employed(Total Assets - Current Liabilities)	£ 1,94,2 78.00	£ 1,89,4 23.00	£ 2,07,3 44.00	£ 2,07,8 55.00	£ 2,21,5 99.00
	Equity	£ 85,493 .00	£ 82,990 .00	£ 90,439 .00	£ 85,568 .00	£ 1,00,7 08.00
	Debt	£ 48,670 .00	£ 43,746 .00	£ 55,619 .00	£ 63,305 .00	£ 57,237 .00
	Total Assets	£ 2,80,2 94.00	£ 2,88,1 20.00	£ 2,87,2 72.00	£ 2,67,6 54.00	£ 2,95,1 94.00
	Interest	£ 3,840. 00	£ 2,703. 00	£ 2,857. 00	£ 3,115. 00	£ 3,489. 00

Table 1: BP PLC' analysis of financial ratio

Source: (Self-Created)

Liquidity ratios

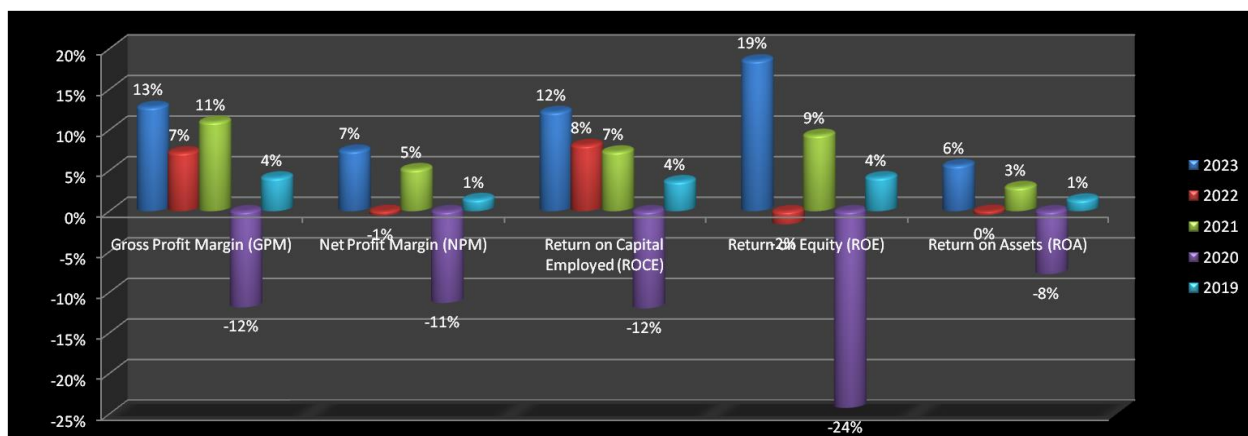


The 'liquidity ratios' mainly measure the capability of the organisation to meet its short-term obligations by using its most liquid assets. These issues are essential for an organisation mainly because the traders, investors and other financial users especially external users mainly evaluate the ability of the organisation's liquidity management through evaluating these ratios. And say high liquidity ratio generally shows that the organisation is in a good financial position with enough liquid assets to pay its obligations and market dues (Yankov, 2020).

According to the above graph it is observed that the liquidity management of BP plc has been fluctuating in the past years. The liquidity ratio mainly consists of current ratio and quick ratio and both of these ratios have fluctuated significantly in the past 5 years. The current ratio for the year 2019 was 1.01 which increased to 1.02 in 2020 showing a significant growth and positive returns and asset utilization by BP PLC. However, in the year 2021 and 2022 the ratio decreased significantly to 1.14 and 1.08 showing that the organization has acquired less short-term assets and inefficient liquidity management during this period. In 2023 the ratio increased to 1.21 highlighting greater short-term assets over current liabilities and better liquidity management by BP PLC. Similar pattern has also been observed in the quick ratio which showcased an increase of 0.22 in the year 2020 from 2019 and decrease of 0.10 in 2021 showing fluctuation in liquid Assets and proportions of current liabilities. These, ratios

showcase the ability of the company to meet short term obligations and therefore the liquid Assets of the organization are constantly increasing and decreasing proportionately with current liabilities showcasing the fluctuation in the ratio proportion. This pattern continued in 2022 and 2023 as well because in 2020 the margins reduced to 0.73 which again increased in 2023 by 0.12 showcasing an increase in most liquid asset proportions compared to current liabilities. The company's financial losses from the Russian invasion are the cause of the fluctuations in its performance. Due to Russia's invasion of Ukraine, the corporation lost '\$2.5 billion in 2022 considering comparison to a profit of \$7.6 billion in 2021'. Rosneft is a Russian oil and gas business (ETEnergyworld 2024). BP sold its 19.75% ownership in the company and charged \$24 million to its account. Furthermore, in 2022, BP repurchased \$11.7 billion worth of shares, disappointing the company's investors and resulting in a decrease in financial investment (BP PLC, 2024).

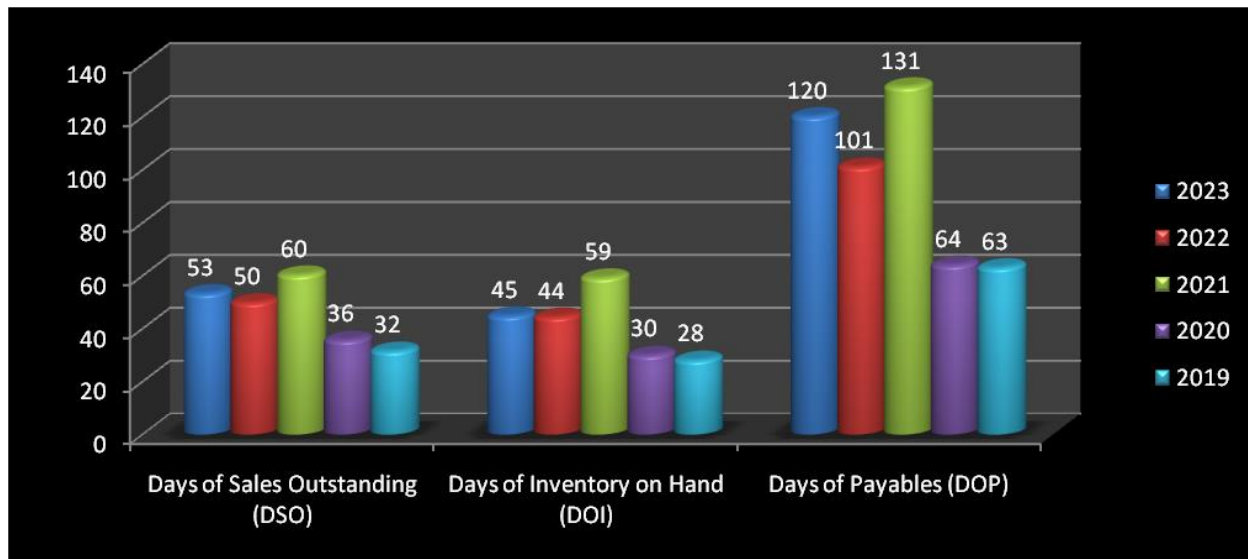
Profitability ratios



Profitability ratios measure the strength and financial capabilities of the organization. Profitability ratios mainly showcase the relation between profit to the equity revenue assets and other financial metrics organization. These ratios are essential for an organization as investors and management are able to conduct efficient financial decisions based on the results of profitability. Hence better profitability ratios help in evaluating the financial strength of the company with better profit returns providing increased return on investment and cost management leading to increased market returns and strong financial investment dependency (Blessing, and Sakouvogui, 2023).

According to the above graph it is observed that the financial returns for BP PLC have recorded significant losses and decreased financial values. This is mainly because the gross profit margin was 4% in the year 2019 which reduced by almost 16% reaching to -12% in the year 2020 showing a major concern for financial returns management and revenue operation for the business. This major downfall was also triggered by the sudden outbreak of covid 19 which led to complete lock down of factories across the world. However, the business recovered significantly in 2021 increasing their profitability margins by 23% to reach a total of 11% gross profit margin which again decreased to 7% in 2022 and increased to 13% in 2023. These fluctuations showcase that the BP PLC is unable to maintain steady revenue margins and cost of sales for multiple years causing significant fluctuations in profit proportion. However, the major concern for the business is their net profit margin which has recorded significant margins of losses in these 5 years. the company occurred 11% loss in the year 2020 due to the lock down and trade restrictions of covid-19 which they recovered in 2021 by their merging to reach a 5% net profit margin which again decreased by 6% and recorded 1% loss in the year 2022 showing significant in efficiency in Financial Expenses management. In the year 2023 the company recorded a 7% profit which is a positive figure considering the past records showcasing a significant increase in Revenue Corporation in terms of financial expense for the year. The return on equity and the return on assets are also showing significant concerns for the business in the last 5 years. This is mainly because except 2023 both these ratios have negative and marginal values in their previous years that showcase the financial struggle that BP PLC has faced in maintaining its financial returns through equity and assets. Low oil trade activity, increased refinery maintenance, and lower oil prices in 2022 are the main causes of the decline in the profitability ratios. A substantial decline in the price of oil and gas has caused all energy companies' profit percentages to decrease, and rival Shell PLC has been a fierce competitor, severely hurting BP's profit margins (BP PLC, 2024).

Efficiency ratios

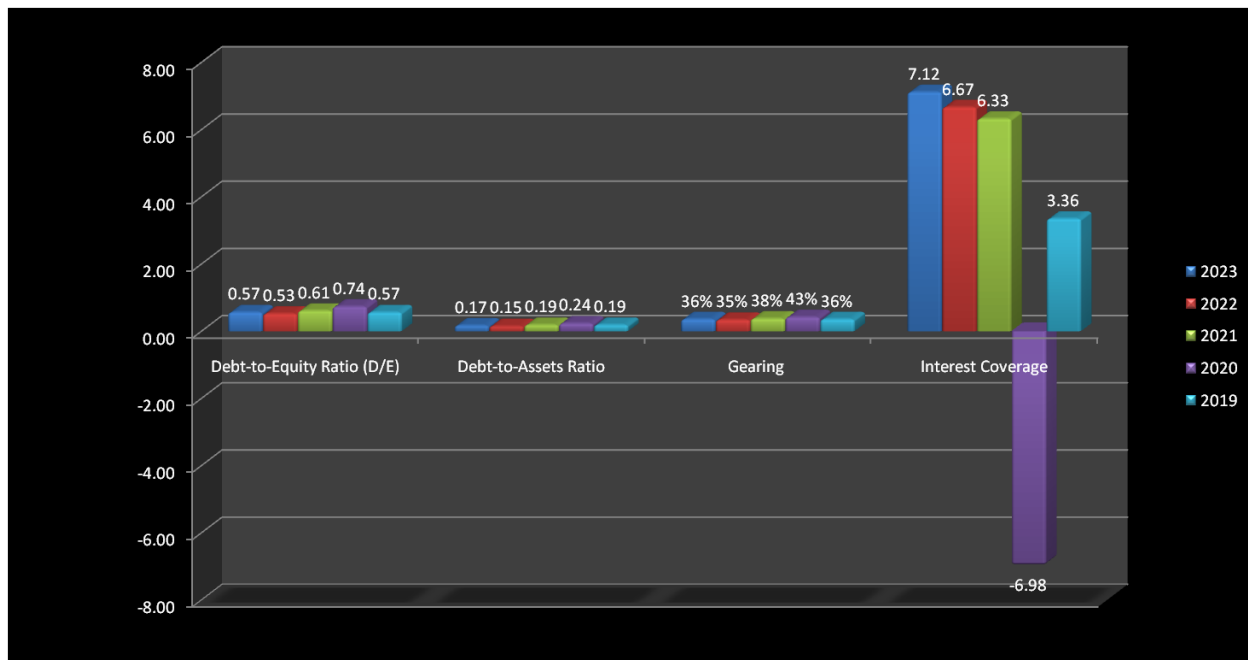


The efficiency ratios mainly evaluate the ability of the organisation to utilise its assets and liabilities to generate sales and maximise profitability therefore these ratios are essential for evaluating the operational efficiency of the business. In addition to that these ratios also have an essential role in management and investors who use these ratios to evaluate how well a company is managing its resources. Therefore, if the efficiency ratios are high, it indicates effective management and operational efficiency which leads to better profitability and financial performance (Alarussi, 2021).

The efficiency ratios are fairly steady compared to liquidity and profitability ratios mainly because even though there is fluctuation in the ratio proportion it has maintained an average proportional origin in the past 3 years. The days of sales outstanding had an excellent 32 days cycle which significantly increased to 53 days on the other hand days of table have increased by almost two times from 63 days to 120 days showcasing that the overall business turnover of the organization is now a longer cycle compared to what it was 5 years ago. The days of inventory in hand has increased by 17 days which is a fairly steady cycle change compared to the 5 years duration span of the other efficiency proportions, these values showcase that the business is taking longer period to complete it sales cycle which has also extended the period of inventories cycle. The organization is also taking longer periods to mitigate their dues which

have contributed to the increase in the liquidity ratios also. Also, it should be noted that the financial losses incurred in 2022 as a result of the Russian invasion and changes in oil and gas prices have an impact on the improvement in efficiency, particularly in debt collection and payment. In order to avoid further financial losses due to uncertain market conditions, BP hastened its debt collection and sales strategies and reduced its inventory expenses and acquisitions (BP PLC 2024).

Gearing ratios



The gearing ratios mainly evaluate the degree of financial leverage of the organization showcasing the proportion of debt associated to the equity of the business hence these ratios are essential for assessing the financial risks associated with the capital structure of the business. Not only is that, these ratios also essential in evaluating the financial stability and risk of the business in a high gearing ratio. Show cases higher financial risk because of increased debt margin which can lead to challenges in meeting short term applications as well as long term payments (Gezer, and Kingir, 2020).

It is also that the financial risk management of the business over the period remained stable and showcased a balanced financial risk management by the business. This is mainly because the debt to equity has remained almost stable around 0.57 which showcases that the business has been majorly focusing on equity financing compared to debt which would have increased

its financial risk management. However, in the year 2020 and 2021 the financial risks were significantly higher at 0.74 and 0.61 respectively, showcasing that in that period the firm had to use debt financing to manage the financial requirements and mitigate financial losses that occurred during the period of pandemic. During this period multiple losses and trade lock downs were recorded creating urgency for increased financial support for which the business had used debt financing. They have managed their financial risk significantly after that period and remain stable in 2023 also. Similarly, debt to asset ratio showcasing the asset utilization of the business for mitigating its liabilities showed significant positive values as the business was able to reduce its financial risk by 0.02 in the last 5 years showcasing effective use of their assets and resources. The gearing ratio on the other hand also remained stable at 36% which also increased to 43% in 2020 due to similar pandemic reasons as they have managed their financial risk effectively in the last 3 years and remained at a stable level of 36%. There are certain reasons for which the ratios have fluctuated recently by minor proportions, mainly the sale of the 19.75% interest in Rosneft, which resulted in a substantial cash flow over equity and a reduction in the company's debt structure (ETEnergyworld 2024). The company prioritized equity funding over debt financing in order to preserve consistency with small cap money flows, given the unpredictability of market patterns and financial conditions.

Comparison with competitors

Tullow Oil Plc

		2023	2022
Liquidity Ratios			
Current Ratio	(Current Assets / Current Liabilities)	1.04	1.08
Quick Ratio	(Current Assets - Inventories)/ Current Liabilities	1.01	1.06
'Cash Ratio'	'Cash and Cash equivalent / Current Liabilities'	0.41	0.48
Efficiency	Days		
'Days of Sales Outstanding (DSO)'	('Average Receivables /Net Revenue')x365	10	5
'Days of Inventory on Hand' (DOI)	('Average Inventory /Cost of Sales')x365	45	95
'Days of Payables' (DOP)	('Average Payables /Cost of Sales')x365	325	393
'Profitability Ratios'	%		
'Gross Profit Margin' (GPM)	('Gross Profit / Revenue')	47%	61%
'Net Profit Margin' (NPM)	('Net Income / Revenue')	-7%	3%

'Return on Capital Employed' (ROCE)	('operating profit/ Average Total Capital employed')	9%	20%
'Return on Equity' (ROE)	('Net Income / Average Equity')	-30%	11%
'Return on Assets' (ROA)	('Net income / Average total assets')	-2%	1%
'Leverage Ratios'			
'Debt-to-Equity Ratio' (D/E)	(Total Debt / Total Equity)	5.52	5.16
'Debt-to-Assets Ratio'	(Total Debt / Total Assets)	0.45	0.47
'Gearing'	(Total debt / (Total debt+Total Equity)	85%	84%
'Interest Coverage'	(EBIT / Interest)	2.32	3.24
Notes to account			
Notes	Current Assets	1280.60	1428.00
	Current Liabilities	1226.00	1321.30
	Inventories	107.30	181.60
	Cash	499.00	636.30
	Accounts Receivables	43.50	26.80
	Net Revenue	1634.10	1783.10

	Cost of Sales	869.20	697.50
	Accounts Payables	775.00	750.20
	Gross Profit	764.90	1085.60
	Net Profit	-109.60	49.10
	Operating Profit	295.90	733.69
	Capital Employed (Total Assets - Current Liabilities)	3232.60	3718.06
	Equity	359.40	459.50
	Debt	1984.60	2372.80
	Total Assets	4458.60	5039.36
	Interest	329.60	335.50

Table 2: Financial ratio analysis of Tullow

Source: (Self-Created)

Liquidity ratios

According to the financial figures it is observed that the organization has maintained a steady current ratio in the year 2022 as well as in the year 2023 similarly it has also maintained a steady quick ratio of above 1 in both years. They show that the current ratio management for the organization is efficient, showcasing that they have proportionally more current liabilities in debts and liabilities.

Compared to BP PLC the current issue management for the business has less value as BP recorded 1.21 current ratio in 2023 whereas Tullow recorded 1.04 showcasing BP has better current assets management and utilization in the short-term period. on the other hand, the quick ratio for Tullow is greater than BP by 0.16 Showcasing that Tullow has better liquid assets

such as cash and cash equivalent and account receivables compared to BP which has greater amount of inventory proportions which is not as liquid as cash and account receivables hence Tullow is better in liquefy its assets.

Efficiency ratios

According to the financial figures it is observed that the sales turnover for Tullow Plc is 5 days and 10 days in the year 2022 and 2023 respectively. also, there inventory turnover has decreased by 50 days showcasing exceptional sales and inventory management by the organization, however the payments management of the business is not as efficient as in both the years they have higher payable margins of more than 300 days showcasing that their payment cycle is exceptionally slow, and they are mostly focused on credit operations.

Compared with BP plc it is observed that the sales turnover margins for Tullow PLC is significantly higher as BP recorded 53 days for sales turnover cycle whereas Tullow has only 10 days sales cycle. On the other hand, the inventory management for Tullow is also on par with BP as both the business recorded a 45-day inventory cycle showcasing steady inventory management. However, in terms of Payable cycle management BP is better than Tullow as BP recorded 120 days of payment cycle whereas Tullow recorded 325 days of payment cycle in the 2023 showcasing more efficient and faster payment cycle for BP.

Profitability ratios

According to the financial figures it is observed that the financial performance of Tullow PLC is not impressive in recent financial years. This is mainly because the gross profit margin has decreased by 14% in 2022, and the company has a significant loss of 7% in 2023 showcasing a major concern for revenue and expensive management for Tullow PLC. Not only that, the return on equity and return on assets also showcasing -30% and -2% returns which are significant terms for the business in terms of equity management and asset utilization in the market. This is mainly because in this competitive market having financial efficiency is critical. Comparing with BP the financial efficiency of Tullow PLC is significantly concerning especially in terms of profit generation. BP has recorded a net profit of 7% whereas Tullow PLC record in

the net loss of 7% however BP recorded a loss of 1% in previous year were as Tullow PLC acquired a 3% net profit showcasing that both the businesses have significantly struggled in the market to acquire profitability and income of current financial performance BP has better returns in terms of profitability which is also can be observed in return on equity margins and return on assets margin have for the returns whereas Tullow PLC has negative proportions of 30% and 2%.

Gearing ratios

According to the financial evaluation of Tullow PLC it is observed that the financial risk for the business is considerably higher, showcasing significant dependency on debt financing instead of equity financing increasing the financial proportions of the business. It is also that debt to equity ratio of Tullow PLC has increased to 5.52 in the year 2023 showcasing significant financial involvement in the financing activities of the business. On the other hand, the debt to assets ratio has decreased to 0.45 showcasing better asset management for business financing. The major concern for the business is staggering 85% of gearing ratio showcasing that involved in the financial operations of the business and the business is currently utilizing debt over equity to finance it business operations

Compared with BP it is observed that Tullow PLC has significantly higher financial risk involved in its equity management along debt management capabilities. Increased proportions for debt to equity and debt to assets showcase that BP has better equity and Asset Management in terms of financing operations with 0.57 and 0.17 ratio proportions in the year 2023. On the other hand, Tullow PLC has 5.52 and 0.45 ratio proportions for these ratios respectively showcasing less efficient asset utilization and increased borrowing in the current financial year. The gearing ratio for BP is 36% whereas for Tullow PLC it is 85% showcasing higher proportions of leverage and long-term borrowing for Tullow PLC compared to BP to finance their operations Which shows that BP has better financial controls and strength compared to Tullow PLC.

Recommendations for future improvement

To improve the financial management of BP PLC it is essential to stabilize its liquidity profitability efficiency and gearing ratios.

- For liquidity management organization should implement better cash flow management and optimize working capital by reducing the days of sales outstanding and inventory periods
- For improving the profitability margins, the organization must implement cost management measures, improve operational efficiency, and diversified revenue streams to mitigate market volatility.
- Efficiency of the organization can be improved by streamlined debt collection and inventory management processes
- Finally, the financial risk management and gearing proportions can be maintained with balanced debt-to-equity management and their food the business must focus on reducing debt levels further and improvisation. in addition to that the business muscle also focusses on equity financing over debt in order to reduce financial risks
- In addition to that, it is also to be added in order to adequately mitigate external like geo-political events BP must diversify its investment portfolio and evaluate sustainable energy projects which are likely to provide more stable returns in the long-term period.

Therefore, implementing these measures are likely to contribute to more stable financial performance and resilience to market fluctuations.

PART C INVESTMENT APPRAISAL

Calculating the Payback Period (PBP), Accounting Rate of Return (ARR) and the Net Present Value (NPV) of the project. Evaluating the results of these calculations and recommending with reasons which project should be adopted.

Project A

Year	Profit after tax	Discounting factor@ 9.75%	Cash flow	Cumulative cash flow
0	-£ 80.00	1	GBP 80.00	GBP 80.00
1	£ 25.00	0.99	£ 24.76	-£ 55.00
2	£ 25.00	0.981	£ 24.52	-£ 31.00
3	£ 20.00	0.971	£ 19.43	-£ 11.00
4	£ 55.00	0.962	£ 52.91	£ 42.00
			Payback period	£ 2.72
Profit after tax	Discounting factor 9.75%	PV		
£ 25.00	0.91116173	£ 22.78		
£ 25.00	0.91116173	£ 22.78		
£ 20.00	0.91116173	£ 18.22		
£ 55.00	0.91116173	£ 50.11		
	PV of cash flow	£ 113.90		
	Initial investment	£ 80.00		
	NPV	£ 33.90		
Year	Amount			
0	-£ 80.00			
1	£ 25.00			

2	£ 25.00			
3	£ 20.00			
4	£ 55.00			
Internal rate of return	18%			

Project B

'Year'	'Profit after tax'	'Discounting factor@ 9.75%'	'Cash flow'	'Cumulative cash flow'
0	-£ 75.00	1	-£ 75.00	-£ 75.00
1	£ 50.00	0.99	£ 49.52	-£ 25.00
2	£ 20.00	0.981	£ 19.62	-£ 6.00
3	£ 20.00	0.971	£ 19.43	£ 14.00
4	£ 20.00	0.962	£ 19.24	£ 33.00
			Payback period	£ 0.41
Profit after tax	Discounting factor 9.75%	PV		
£ 50.00	0.91116173	£ 45.56		
£ 20.00	0.91116173	£ 18.22		
£ 20.00	0.91116173	£ 18.22		
£ 20.00	0.91116173	£ 18.22		
	PV of cash flow	£100.23		
	Initial investment	£ 80.00		
	NPV	£ 20.23		
Year	Amount			
0	-£ 75.00			
1	£ 50.00			
2	£ 20.00			

3	£ 20.00			
4	£ 20.00			
Internal rate of return	22%			

Analysing the Payback period

The payback period mainly showcases the time it takes for a project to generate enough cash flow to recover the initial investment in the project (Rumbayan, and Rumbayan, 2023). Hence a shorter payback period is generally preferred mainly because it showcases faster recovery of investment fund which reduces risk exposure

- According to the calculation it is observed that payback period for Project A is 2.72 years which showcases that the initial investment will be recovered in approximately 2 years and 9 months
- On the other hand, the payback period for project B is 0.41 years which showcases a payback period that suggests that the project generates positive cash flows immediately which recovers losses and generate profit within that year

This showcases that project B is more attractive in terms of Payback period as it recovers the initial investment is comparatively faster

Analysing the NPV

Net present value mainly highlights the difference between present values of cash includes and the prison value of cash outflows within a period (Saad et al., 2020). Generally, a positive NPV Indicate that the project is expected to generate more value than the cost of investment and such projects are highly considerable.

- According to the calculations it is observed that for project A the nap is 33.90 which indicates that the project is likely to acquire a present value of 33.90 units of currency over its lifetime
- On the other hand, for project B the NPV is 20.23 Which is comparatively lower than the other project and is expected to acquire 20.23 units of currency over its lifetime

Hence based on the integrations project A is more attractive as a promise a higher return in terms of NPV showcasing Greater profitability in future years

Analysing in the IRR

Internal rate of return is making the discount rate at which the net present value of a project become zero therefore it mainly represents the expected rate of return of the project and provides opportunity for comparison with the required rate of return of the organization (Saad et al., 2020)

- According to the above calculation it is observe that the internal rate of return for project A is 18% which showcase that there is a decent rate of return for the project regardless of the corporate cost of capital
- On the other hand, the internal rate of return for project B is 22% IRR that this project is expected to generate higher Returns compared to project A

Hence based on the internal rate of return project B is more efficient in generating Returns per amount invested

Therefore, In order to decide which project is more viable it is essential to consider the following aspects:

- Risk and liquidity

The shorter payback period of project B employees no margin of risk and faster capital recovery which is beneficial for maintaining liquidity

- Profitability

Project A has better net present value showcasing greater total value creation despite the longer Favor period

- Return on investment

The return of investment is comparatively better for project B as it has 22% internal rate of return showcasing better returns on investment capital

Project B is mainly preferable if the priority is on quick capital recovery and better efficiency engineering returns mainly because the extremely short payback period and better IRR makes it less risky and more attractive for projects that require fast results and better liquidity. On the other hand, project A is more suitable if the goal is to maximize overall value addition and

profitability from the investment. It will generate better Value for the organization despite having a longer time period for recovering the initial investment.

Hence choosing between project A and project B requires balancing between risk, liquidity and profitability if the company can maintain a longer payback period and wants to maximize total profitability project A should be chosen because of its higher net present value. On the other hand, if the organization mainly focuses on quick recovery of investment and better return rates project B is the better option mainly due to its short payback period and better internal rate of return.

Critically discuss the advantages and shortcomings of the PBP, ARR and NPV techniques as ways of evaluating capital projects and non-financial factors that need to be considered

Net Present Value (NPV):

NPV accounts for the time value of money explicitly by providing a more accurate assessment of the project's worth through discounting the future cash flow towards their present value (Espinoza et al., 2020). following the comprehensive evaluation of all the cash flow over the life of a project, it can provide a holistic view about their feasibility and profitability. In contrast, it is limited by its calculation complexity that requires the future cash flow estimation and an appropriate rate of discount that can introduce the inaccuracy's risk.

Accounting Rate of Return (ARR):

It benefited by considering easy calculation using accounting profits which make it practical for the firms following the financial statements' availability along with high lighting the profitability of the project compared with the expected returns of the initial investment. Conversely, ARR is completely based on the accounting profits rather than the cash flow which have the chances of manipulation by accounting policies that may not reflect in the true economic benefits of the project accurately.

Payback Period (PBP):

While PBP is straightforward as well as easy for understanding making it completely accessible across managers without any kind of extensive financial backgrounds (Botequilha-Leitão and Díaz-Varela, 2020), by emphasising the required time in covering the initial investment PBP also helps in assessing the business considering the project's risk and liquidity. However, it is completely short come by its nature of ignoring time value of money along with neglecting the flow of post-payback cash.

Non-Financial Factors:

During the time of evaluating the capital projects, several non-financial factors also play a significant role. In this particular case, the alignment of the project with companies' strategic goals as well as long-term vision is truly needed. Developing compliance with the regulations and the environmental footprint of the project also have to focus. In addition to this, competitive landscape analysis, research about the market trends, and complete analysis of the customer behavioural changes must be allowed for the purposes of meeting the current market demands and achieving the competitive edge. However, for the purposes of considering the operational feasibility, the assurance of resource availability including technology and skilled employees must be allowed to support the project.

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Appendix

BP PLC

Income statement

Group income statement

For the year ended 31 December		\$ million		
	Note	2023	2022	2021
Sales and other operating revenues	6	210,130	241,392	157,739
Earnings from joint ventures – after interest and tax	16	67	1,128	543
Earnings from associates – after interest and tax	17	831	1,402	3,456
Interest and other income	7	1,635	1,103	581
Gains on sale of businesses and fixed assets	4	369	3,866	1,876
Total revenues and other income		213,032	248,891	164,195
Purchases	19	119,307	141,043	92,923
Production and manufacturing expenses		25,044	28,610	25,843
Production and similar taxes	5	1,779	2,325	1,308
Depreciation, depletion and amortization	5	15,928	14,318	14,805
Net impairment and losses on sale of businesses and fixed assets	4	5,857	30,522	(1,121)
Exploration expense	8	997	585	424
Distribution and administration expenses		16,772	13,449	11,931
Profit (loss) before interest and taxation		27,348	18,039	18,082
Finance costs	7	3,840	2,703	2,857
Net finance (income) expense relating to pensions and other post-retirement benefits	24	(241)	(69)	(2)
Profit (loss) before taxation		23,749	15,405	15,227
Taxation	9	7,869	16,762	6,740
Profit (loss) for the year		15,880	(1,357)	8,487
Attributable to				
bp shareholders		15,239	(2,487)	7,565
Non-controlling interests		641	1,130	922
		15,880	(1,357)	8,487
Earnings per share				
Profit (loss) for the year attributable to bp shareholders				
Per ordinary share (cents)				
Basic	11	87.78	(13.10)	37.57
Diluted	11	85.85	(13.10)	37.33
Per ADS (dollars)				
Basic	11	5.27	(0.79)	2.25
Diluted	11	5.15	(0.79)	2.24

Balance sheet

Group balance sheet

At 31 December			\$ million
	Note	2023	2022
Non-current assets			
Property, plant and equipment	12	104,719	106,044
Goodwill	14	12,472	11,960
Intangible assets	15	9,991	10,200
Investments in joint ventures	16	12,435	12,400
Investments in associates	17	7,814	8,201
Other investments	18	2,189	2,670
		149,620	151,475
Fixed assets			
Loans		1,942	1,271
Trade and other receivables	20	1,767	1,092
Derivative financial instruments	30	9,980	12,841
Prepayments		623	576
Deferred tax assets	9	4,268	3,908
Defined benefit pension plan surpluses	24	7,948	9,269
		176,148	180,432
Current assets			
Loans		240	315
Inventories	19	22,819	28,081
Trade and other receivables	20	31,123	34,010
Derivative financial instruments	30	12,583	11,554
Prepayments		2,520	2,092
Current tax receivable		837	621
Other investments	18	843	578
Cash and cash equivalents	25	33,030	29,195
		103,995	106,446
Assets classified as held for sale	2	151	1,242
		104,146	107,688
Total assets		280,294	288,120
Current liabilities			
Trade and other payables	22	61,155	63,984
Derivative financial instruments	30	5,250	12,618
Accruals		6,527	6,398
Lease liabilities	28	2,650	2,102
Finance debt	26	3,284	3,198
Current tax payable		2,732	4,065
Provisions	23	4,418	6,332
		86,016	98,697
Liabilities directly associated with assets classified as held for sale	2	62	321
		86,078	99,018
Non-current liabilities			
Other payables	22	10,076	10,387
Derivative financial instruments	30	10,402	13,537
Accruals		1,310	1,233
Lease liabilities	28	8,471	6,447
Finance debt	26	48,670	43,746
Deferred tax liabilities	9	9,617	10,526
Provisions	23	14,721	14,992
Defined benefit pension plan and other post-retirement benefit plan deficits	24	5,456	5,244
		108,723	106,112
Total liabilities		194,801	205,130
Net assets		85,493	82,990
Equity			
bp shareholders' equity	32	70,283	67,553
Non-controlling interests	32	15,210	15,437
Total equity	32	85,493	82,990

Tullow plc

Income statement

Group income statement

Year ended 31 December 2023

	Notes	2023 \$m	2022 \$m
Continuing activities			
Revenue	2	1,634.1	1,783.1
Cost of sales	4	(869.2)	(697.5)
Gross profit		764.9	1,085.6
Administrative expenses	4	(56.1)	(51.0)
Gain on bargain purchase		-	196.8
Other gains		0.2	3.1
Exploration costs written off	8	(27.0)	(105.2)
Impairment of property, plant and equipment, net	9	(408.1)	(391.2)
Provisions reversal/(expense)	4	22.0	(4.2)
Operating profit		295.9	733.9
(Loss)/gain on hedging instruments		(0.4)	0.8
Gain on bond buyback	16	86.0	-
Finance income	5	44.0	42.9
Finance costs	5	(329.6)	(335.5)
Profit from continuing activities before tax		95.9	442.1
Income tax expense	6	(205.5)	(393.0)
(Loss)/profit for the year from continuing activities		(109.6)	49.1
Attributable to:			
Owners of the Company		(109.6)	49.1
(Loss)/earnings per ordinary share from continuing activities	7	¢	¢
Basic		(7.6)	3.4
Diluted		(7.6)	3.3

Balance sheet

Group balance sheet

As at 31 December 2023

	Notes	2023 \$m	2022 \$m
ASSETS			
Non-current assets			
Intangible exploration and evaluation assets	8	287.0	288.6
Property, plant and equipment	9	2,532.8	2,981.4
Other non-current assets	10	338.6	327.1
Deferred tax assets	20	19.6	14.5
		3,178.0	3,611.6
Current assets			
Inventories	11	107.3	181.6
Trade receivables	12	43.5	26.8
Other current assets	10	571.2	567.9
Current tax assets	6	3.8	15.4
Cash and cash equivalents	13	499.0	636.3
Assets classified as held for sale	14	55.8	-
		1,280.6	1,428.0
Total assets		4,458.6	5,039.6
LIABILITIES			
LIABILITIES			
Current liabilities			
Trade and other payables	15	(775.0)	(750.2)
Borrowings	16	(100.0)	(100.0)
Provisions	19	(67.9)	(98.8)
Current tax liabilities	6	(230.5)	(186.0)
Derivative financial instruments	17	(35.0)	(186.3)
Liabilities associated with assets classified as held for sale	14	(17.6)	-
		(1,226.0)	(1,321.3)
Non-current liabilities			
Trade and other payables	15	(783.2)	(780.0)
Borrowings	16	(1,984.6)	(2,372.8)
Provisions	19	(403.7)	(415.6)
Deferred tax liabilities	20	(420.5)	(551.5)
Derivative financial instruments	17	-	(57.9)
		(3,592.0)	(4,177.8)
Total liabilities		(4,818.0)	(5,499.1)
Net liabilities		(359.4)	(459.5)
EQUITY			
Called-up share capital	21	216.7	215.2
Share premium	21	1,294.7	1,294.7
Foreign currency translation reserve		(244.4)	(238.6)
Hedge reserve	17	(18.9)	(150.3)
Hedge reserve – time value	17	(16.3)	(94.4)
Merger reserve		755.2	755.2
Retained earnings		(2,346.4)	(2,241.3)
Equity attributable to equity holders of the Company		(359.4)	(459.5)
Total equity		(359.4)	(459.5)