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BP Equity Research – Fuelling the Future with Renewables

VASCO FIGUEIREDO SANTOS DE ALMEIDA GOUVEIA
46852

A Project carried out on the Master in Finance Program, under the supervision of:

Rosário André

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Abstract

The Oil & Gas market has seen ups and downs over the past years and BP has tried to position itself to transition from an International Oil Company to an International Energy Company. This is far from happening soon. In this report, a DCF valuation and Relative valuation are conducted to fundament the investment recommendation in BP's shares according to the share price target and dividend policy forecasted for FY25.

Keywords: Valuation, Oil & Gas, Renewables, Transition.

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This report is part of the BP Equity Research report (annexed), developed by Vasco Gouveia and Tiago Correia and should be read as an integral part of it.

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Introduction

This report is part of an equity research performed on the oil giant BP plc. The report has as its main objective to fundament an investment recommendation to investors, based on the performed valuation.

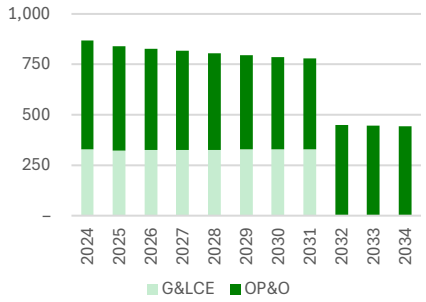
The first part of the equity report is addressed in Tiago Correia's individual report. It includes an overview of BP to better understand the full scope of its operating segments, and how the company has addressed environmental, social, and governance issues. Next, the different industries the company operates in (Upstream, Downstream, Renewables) were analyzed to understand the different macroeconomic factors influencing each one, and how BP is affected by the existing trends. It takes a closer look at BPs energy transition targets and what that entails for the company's future as well as the difficulty of satisfying different types of investors. To conclude, a Relative Valuation is conducted to understand how BP's value compares to its peer group in terms of Reserves, Production, and EBITDA.

The second part of the equity report is addressed in this report, showing BP's DCF Valuation forecast, according to our estimates of production, reserves, revenue streams, cost structure, capital expenditures, discount rates, terminal growth rates, and others. This model is the backbone for our final investment recommendation, and therefore a scenario and sensitivity analysis are conducted to understand the possible effects of the key variables impacting the model.

Valuation

To fundament our investment recommendation on BP we valued the company using a sum of the parts valuation and a comparable companies multiples valuation. In the first, we valued each segment independently while in the second we applied our comparable group's multiples to forecast the Enterprise Value and Equity Value of BP as a whole. As BP's segments are complex and the company does not report all data on each, especially in terms of cost structure and some balance sheet items, assumptions were taken to enable the sum of the parts valuation, meaning some segment items may not represent the exact amounts allocable to the respective segment.

Figure 1: BP hydrocarbon production forecast (mboe/d)

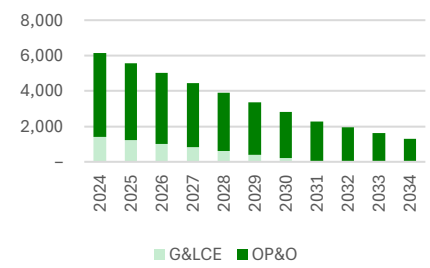


Source: Own Estimates

Production and Reserves Outlook

Upstream production is a core component of BP's operation. We forecasted production for the G&LCE and OP&O segments separately, considering some of the company's strategic objectives and our own opinions. For FY24 we used data available up to the 3rd quarter and assumed that total year production would be around the average of the past three quarters, which seems likely. For FY25 the company has shown interest in achieving 2,300 mboe/d of total hydrocarbon production as it starts to scale down its production in line with its strategic objectives. It is also set to achieve 2,000 mboe/d of total hydrocarbon production by FY30, but we forecast them to scale it down only to 2,150 mboe/d as we do not expect them to transition that fast into lower carbon businesses, and global demand for hydrocarbons is expected to stay high at 105.4 mmboe/d in FY30 growing from the 103.2 mmboe/d in FY24 according to the IEA[1]. As part of the company's transition, we expect their production mix to shift slightly in favor of Natural Gas, reaching 42% of total production by FY30 compared with 38% in FY24. From FY31 to FY34, we set production for both segments to go down by 0.6% y-o-y as we expect Oil and Gas demand to slowly start declining worldwide.

Figure 2: BP total hydrocarbon reserves forecast (mmboe)



Source: Own Estimates

For us one of the biggest concerns about BP is its reserves. The company shows a low amount of proved reserves relative to its peers with only 8 years in reserves at current production levels and has dropped reserve-replacement-ratio as a key metric they monitor. This makes us highly uncertain of how fast the company is expecting to search for and explore new reserves. The replacement ratio has been very volatile in the last few years, especially due to sales of mature oil fields, but we are confident that BP will deploy capital to replace some of its reserves. We have assumed that BP will maintain a G&LCE replacement ratio of 38.2% meaning reserves will last until FY31 at the estimated production rate, and a replacement

[1] IEA (2024), *Oil 2024*, IEA, Paris https://www.iea.org/reports/oil-2024, Licence: CC BY 4.0

ratio of 26.8% for OP&O meaning reserves will last until FY38 at the estimated production rate. We expect higher replacement of lower emission hydrocarbons such as gas since BP is pressured to decarbonize its operations and we believe regulation will incentivize gas exploration over oil exploration.

Revenue Forecasting

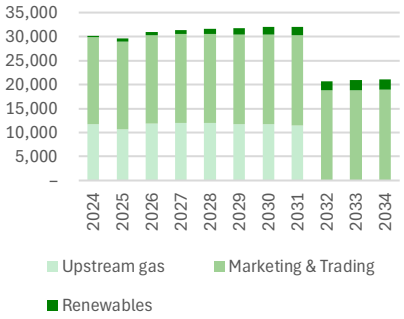
The revenue of the three main operating segments was estimated from FY24 to FY34 based on relevant value drivers. For the multiple variable regressions, the models were made on data from Q1 2019 to Q3 2024. From FY31 to FY35 the FY30 trajectory was assumed to maintain itself.

Gas & Low carbon energy (G&LCE)

This segment includes multiple revenue streams which are hard to separate due to the lack of data reported by the company on this matter. We have identified three revenue sources: upstream gas production, gas marketing & trading, and renewables. For the upstream component, we use a multiple-regression model using quarterly average Henry Hub Natural Gas Prices[2] and total hydrocarbon production from G&LCE as independent variables. The model presented a R-squared of 0.78 with both variables proving significant at the 95% confidence interval. The obtained model was the following:

$$Gas\ upstream\ revenue = -6054 + 440.9 * Henry\ Hub\ price + 8.28 * Production$$

Figure 3: G&LCE Revenue Forecast ($ million)



Source: Own Estimates

For Gas Marketing & Trading, we forecasted that revenue would normalize after turmoil periods with the COVID-19 Pandemic and the Ukraine War. Therefore, we based our revenue estimation for FY24 on the average revenue from FY19 and FY21 as they represent better the normal operating revenue from the company. We set revenue to increase by 0.6% y-o-y until FY29 and 0.2% y-o-y until FY34, this is, slightly down from McKinsey estimates for global gas demand growth[3], since it is expected to come especially from Asia, and this growth will more likely be captured by Chinese oil giants like Sinopec and CNPC while the European market is set to slow down.

For Renewables, revenue depends on total installed capacity, load factor, and price. We have not included hydrogen and CCS estimations as these are far from being operational in the next decade. We expect the total installed capacity for solar to reach around 10GW by FY30 through the acquisition of BP Lightsource and its ongoing project deployment. For wind we expect them to achieve 3 GW by

[2] International Monetary Fund, Global price of Natural Gas, US Henry Hub Gas [PNGASUSUSDQ], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PNGASUSUSDQ
[3] McKinsey & Company. *Global Gas Outlook to 2050*. McKinsey & Company, 2021. https://www.mckinsey.com/~/media/mckinsey/industries/oil%20and%20gas/our%20insights/global%20gas%20outlook%20to%202050/global%20gas%20outlook%202050_final.pdf

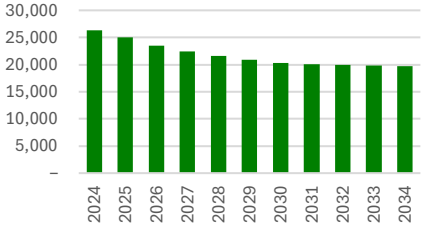
FY30 through their German offshore concessions and plans on the North Sea. Currently, almost all renewable capacity is in the US market, but the Lightsource consolidation will bring renewables from Europe, Brazil, and Australia. Load factors for solar were assumed to stay constant at around 24.1%, the average of the last 5 years in the US, while for wind they were assumed to increase up to 40% in 2030 as BP intends to expand its offshore wind business which has higher load factors compared with onshore. Finally, BP has some Power Purchase Agreements (PPAs) but the agreed-upon price is not made public, therefore, we assumed that they will sell at market prices. Electricity prices are extremely volatile and are very different from region to region. From FY19 to FY23, BP's renewable activity was primarily in the US, therefore we used the average wholesale price of electricity in the US[4] to forecast BPs renewable revenue. Electricity prices are highly tied to Natural Gas since a relevant share of electricity production comes from Natural Gas, this relationship is expected to fade as renewable generation picks up. For FY24 the average assumed price was 40 $/MWh since the production is still majorly US-based, but from FY25 onward an average price of 50$/MWh was used to account for other geographies such as Europe, which historically has had higher prices for electricity than the US due to the respective regions Natural Gas prices (5x higher on average in Europe the last year).

Oil production & Operations (OP&O)

BP's OP&O revenue is especially dependent on oil prices. It is important to note that most of the revenue generated from this segment is from sales to other company segments, especially the C&P segment. Therefore, transfer pricing if used can distort the reality of the segment.

We performed a multiple linear regression model to estimate BP's OP&O revenue, with two independent variables: Average BP Oil Price, which considers a split for WTI and Brent crude prices based on where it is produced (US or Non-US), and BP hydrocarbon production attributable to this segment in mb/d. For the first, we used average quarterly data on Brent[5] and WTI[6] prices, while for the second we used BP's reported data. We experimented using the Henry Hub gas price, but this would most likely bring multicollinearity to our model. We tried with Global Oil Demand data, but the variable showed no statistical significance. The model presented an R-squared of 0.82, showing that most revenue can be explained by the used variables, which were significant at the 95% confidence interval. This

Figure 4: OP&O Revenue Forecast ($ million)



Source: Own Estimates

[4] IEA (2024), *Electricity 2024*, IEA, Paris https://www.iea.org/reports/electricity-2024, Licence: CC BY 4.0
[5] International Monetary Fund, Global price of Brent Crude [POILBREUSDQ], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/POILBREUSDQ
[6] International Monetary Fund, Global price of WTI Crude [POILWTIUSDQ], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/POILWTIUSDQ

resulted in the following model:

$$OP\&O\ quarterly\ revenue = -6005 + 4.55 * Production + 82.33 * Oil\ Price$$

To forecast revenue from Q4 2024 to Q4 2034 we used WTI and Brent crude futures prices[7] settled on December 3rd which are in backwardation since supply is currently low and there are expectations for OPEC countries to boost their supply in the future.

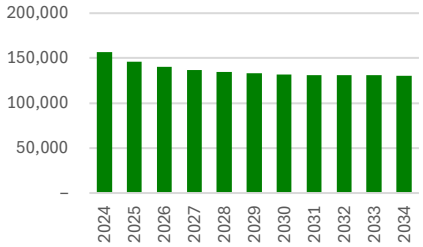
Customer and Products (C&P)

To estimate BP's C&P revenue we used again a linear regression model with Average BP Oil Price and total sales volume of refined products as the two independent variables. The first variable is the same used to forecast OP&O revenue, while the second represents the volume of refined throughputs sold which is an important value driver in the downstream industry. It mainly includes sales of retail fuels, aviation fuels, and supply of other refined products. BP retail sites, BP refining throughputs, and worldwide oil demand were all tested as possible variables for the model but failed to prove significant. For the 23 data points from Q1 2019 to Q3 2024, we obtained a R-squared of 0.97, especially since average oil price explains the majority of the sector's revenue. The used variables were significant at the 95% confidence interval leading us to the following model:

$$C\&P\ quarterly\ revenue = -9496 + 413.71 * Oil\ Price + 5.29 * Sales\ Volume$$

The data used to forecast revenue from Q4 2024 to Q4 2034 was again the WTI and Brent crude futures, and the total sales volume of refined products which was assumed to go down at a constant CAGR of -1.5% as EV adoption keeps rising.

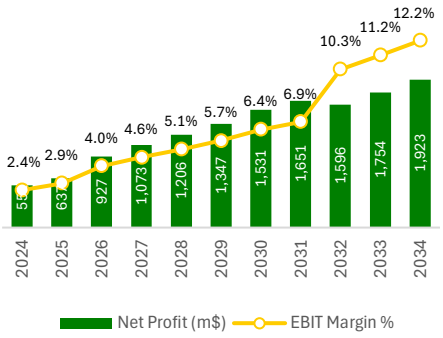
Figure 5: C&P Revenue Forecast ($ million)



Source: Own Estimates

Operating Costs and Margins

Figure 6: G&LCE performance metrics



Source: Own Estimates

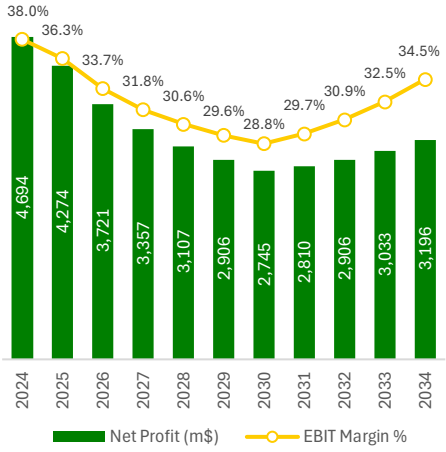
Gas & Low Carbon Energy (G&LCE)

Purchases represent most costs of this segment, which includes purchases of Natural Gas, and LNG for trading & marketing to fulfill their contractual obligations, and to physically settle derivative contracts. We estimated that BP would maintain its purchase level at around 72% of its gas revenue, the average from the observed period except for FY20, when the pandemic disrupted the normal level of purchases. For production and manufacturing expenses we assumed the company's 6 $/boe cost to be hard to maintain in the future, especially with lower volumes and labor inflation and therefore growing up to 7 $/boe by FY30 and stay at that level afterwards. Production taxes are expected to stay around 2.9% of gas production revenue for the forecasted period since we do not believe ad valorem and severance taxes to be increased for upstream gas as governments will try to

[7] Source: Bloomberg

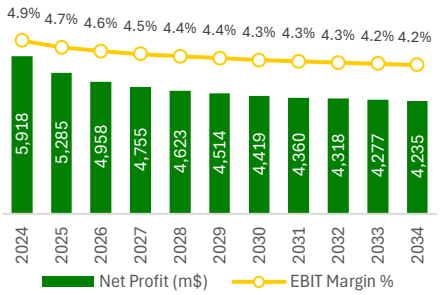
accelerate the energy transition. We set exploration expenses to be stable, in line with our reserves' replacement expectations. We do not expect big changes in SG&A. The margins for G&LCE are expected to drop quite significantly compared to FY23 due to prices coming back to normality, and gas marketing & trading being a low-margin business in stable price environments. However, we expect margin improvements to be a common theme due to the increase of renewables in the revenue mix and its high margins due to low operating costs. EBIT margin is expected to grow from 2.4% in FY24 to 12.2% by FY34.

Figure 7: OP&O performance metrics



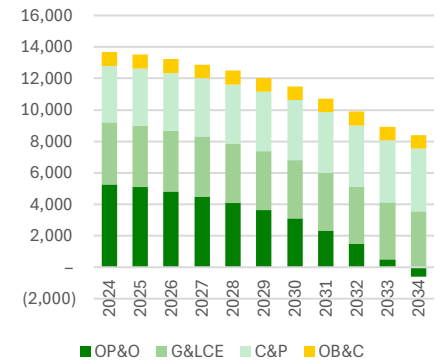
Source: Own Estimates

Figure 8: C&P performance metrics



Source: Own Estimates

Figure 9: CAPEX Forecast per segment ($ million)



Source: Own Estimates

Oil Production & Operations (OP&O)

Most cost assumptions made for G&LCE also apply to the OP&O. To fulfill its contract obligations OP&O purchases much lower quantities relative to sales, only around 15.9%. It is also to note the higher average production tax of 4.4% driven primarily by operations in Asia. OP&O will maintain its status as the highest margin business unit, but EBIT margin is expected to decrease from 38.0% in FY24 to 28.8% in FY30 due to reduced economies of scale as production scales down and lower realizations.

Customer & Products (C&P)

For C&P, the Cost of Goods Sold includes purchases of crude oil for refining operations, supplies for their convenience stores, and refining costs. We assumed the segment gross margin to stay at the average for the past five years (15.0%), assuming stable refining margins. Still, as we know, sudden supply changes by the OPEC cartel can highly affect market dynamics. The segment is expected to maintain EBIT margins between 4% and 5%.

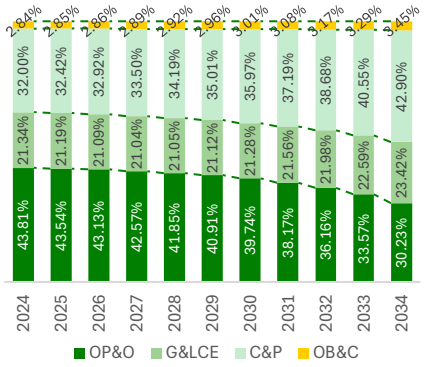
CAPEX

BP has a framework for capital expenditures where it expects to spend $14 billion to $18 billion in all investment activities including inorganic growth, investments in joint ventures and associates, and investments in subsidiaries PP&E, intangible assets, and others. We will look closely into the Capital Investments made in PP&E for our segments which comprise inorganic growth and subsidiaries' investments. PP&E for upstream-only companies goes down and up as reserves are exploited and discovered. This happens because a big portion of PP&E is related to Oil and Gas Fields, valued at the fair economic value to be exploited. So, PP&E can be forecasted as a ratio to reserves. The only segment where this can be done is OP&O, due to the lack of data on the PP&E split for upstream in the G&LCE segment. The ratio has increased by 16% over the past five years, and we believe that it represents BP's CAPEX investment in new technology to reduce wells' emissions and improve safety, but also since some PP&E will not evolve directly with reserves such as equipment machinery. We expect this ratio to increase to

around 15x by 2030 and 20x by 2034, especially with deepwater drilling activities as it involves complex and expensive equipment and as Oil and Gas fields will make for a lower percentage of total PP&E for the segment. Using this method, capital investments for OP&O will slowly decrease as the company starts liquidating obsolete material, resulting in negative CAPEX by 2034.

For G&LCE the company has increased capital expenditures directed to low-carbon energy, specially inorganically with the acquisition of Archaea Energy which focuses on the production of Renewable Natural Gas (RNG), and the announcement of the full acquisition of BP Lightsource. We therefore expect this behavior to be a common theme going forward. The company also has deployed some capital into the development of Blue and Green Hydrogen production plants, but these assets will take a long time to deliver returns. Investment in Upstream Gas, Gas pipelines, and LNG is expected to continue especially in Asia. We project that BP's PP&E will decline by approximately 1% annually, driven by the higher rate of depreciation on gas assets relative to future capital expenditures, which are expected to range between $3.5 and $4.0 billion per year. It is important to highlight the shift from traditional Gas assets to Renewable alternatives will in our opinion result in a declining asset base during the transition period. We expect BP to expand its C&P PP&E by regularly acquiring existing players, following the move to buy TravelCenters of America, and investing intensively in their EV charging network and solutions for Corporations. Therefore, we expect PP&E to grow around 1% per year and capital expenditure to range between $3.5 and $4.0 billion yearly.

Figure 10: PP&E split forecasts

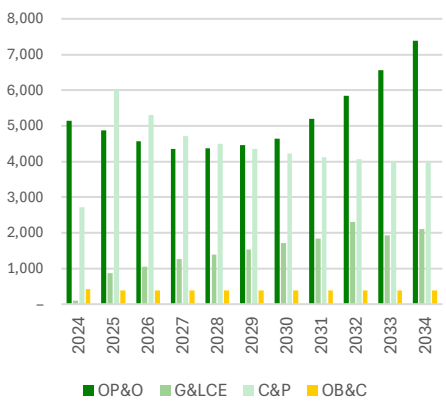


Source: Own Estimates

Corporate Income Taxes

BP, being an International Oil Company, navigates different tax environments in more than 70 countries. Group subsidiaries are also taxed differently in the same country due to their operational objective. Upstream activities are known for being heavily taxed in some countries, such as the Middle East due to high income tax rates established in Production Sharing Agreements (PSAs). Our approach to estimating income tax rates started by identifying the underlying operations of BP in each country. For those with upstream activities, we used applicable PSA rates as the tax rate, and if not disclosed we used the effective tax rate as a proxy. Finally, we computed the weighted average tax rate for each segment based on the profit before taxes for each country in 2023. This resulted in a marginal tax rate of 25.1% for G&LCE, 53.0% for OP&O, 22.6% for C&P, and 22.3% for OB&C.

Figure 11: UFCF forecast per segment ($ million)



Source: Own Estimates

Unlevered Free Cash Flow (UFCF)

After following the previous framework and having estimated other income statement and balance sheet items we will be able to observe in G&LCE a steep

decrease in cash flow in 2024 due to higher capital expenditure and lower realizations from gas marketing & trading but an increasing cash flow from there onwards as the company starts capitalizing on some of its renewable investments.

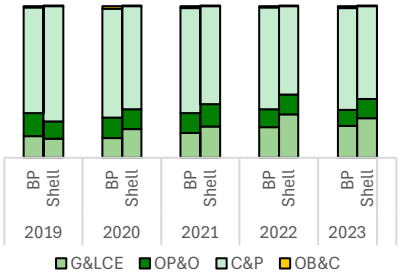
For OP&O cash flows are expected to go down in the short term due to lower EBIT margins as costs increase and Oil prices decrease but will ramp up again from 2028 onward due to lower capital investments.

C&P cash flows are expected to increase significantly in 2025 due to the NWC release as opposed to the net working capital investment in 2024. From there on it will slowly decrease every year due to the increasing capital investments expected for EV charging infrastructure.

Cost of Capital

Although we valued BP as a sum of parts, we found it appropriate to discount all segments at the same discount rate. Although this does not allow for a precise valuation of each segment, it provides a clear picture of the overall company's value, considering all the inherent systematic risk. This decision was made having into account the lack of information on capital structures for each segment, and the fact that most of BP's comparables operate in the same segments, with small differences in the segment mix.

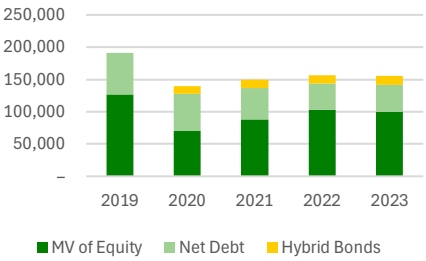
Figure 12: Segmental revenue split BP vs
Source: Own Estimates, annual reports



- Capital Structure

BP has made use of debt, equity, and hybrid bonds to finish its operations. The company's debt is primarily finance debt from fixed-income markets in the US (66.1% of issued bonds), being the European market the second market of choice (27.8% of issued bonds). Debt also includes lease liabilities associated with drilling rigs, service stations, oil depots, and others. Finance debt is 65% fixed-rate debt which has definitively helped during high interest-rate environments observed after the pandemic. For equity, the company has 17.36 billion ordinary shares outstanding with an additional 390 million possible dilutive effect due to employee share-based payments as of FY23. Additionally, in FY20 BP issued hybrid bonds for the first time. The company issued around $13 billion in hybrid perpetual bonds and intends to maintain them as part of the company's long-term capital structure. We will treat this component as an equity instrument to be discounted at the cost of equity that is not part of the equity value attributable to shareholders. BP's Net Debt to Market Value of Equity has been unstable over the past five years being the highest in FY20 amid the pandemic and the lowest in FY22 after significant delevering, and operational recovery post-pandemic. We have assumed FY20 to be an abnormal year, and that the company will target a Net Debt to Market Value of Equity of 45.2%, the average of the past five years when excluding FY20. This is equivalent to a Net Debt to Enterprise Value of 31.1%. The interest coverage

Figure 13: BP historical capital structure ($ million)



Source: Own Estimates, annual reports

ratio (EBIT/ Interest Expense) is also an important metric when it comes to credit ratings and BP's has been healthy, always above 3x except for FY20.

- Cost of Debt

We computed the weighted average yield-to-maturity (YTM) of BP's corporate bonds with more than five years to maturity, to be able to capture different long-term yields from the American, European, Japanese, and Australian markets. We obtained a YTM of 4.43%, with a weighted average maturity of 13 years and 9 months. For the five-year probability of default (PD_{5y}), we computed it based on the survival function and the default intensity rate (hazard rate, $H(t)$)[8] approximation using the five-year market Credit Default Swaps (CDS) of 0.60% and the Recovery Rate (RR) of 40%, commonly used academically:

$$H(t) \approx \frac{CDS}{1 - RR} \qquad PD_{5y} = 1 - e^{-H(t)}$$

We then got the annualized probability of default (PD) of 0.20% by applying the formula, $PD = 1 - (1 - PD_t)^{\frac{1}{t}}, t = 5$.

Finally, to obtain the group's cost of debt (rD) of 4.35% we used the following formula:

$$rD = YTM - PD * RR$$

Figure 14: Cost of Debt inputs

Cost of Debt	
Weighted avg. YTM	4.43%
5yr Market CDS	0.60%
5y PD	0.99%
Annualized PD	0.20%
Recovery rate	40%
Tax Rate	35.29%
Rd	**4.35%**

Source: Bloomberg, Own estimates

Figure 15: Comparable companies adjustment to BP's βe

Company	Raw raw β	Unl. β	Weights
BP	0.740	0.582	60%
Shell	0.732	0.630	15%
TotalEnergies	0.821	0.739	10%
Eni	0.719	0.547	10%
Repsol	0.871	0.682	5%

Final Equity Beta	
βu	0.607
βe	**0.784**

Source: Bloomberg, Own estimates

- Cost of Equity

BP cost of Equity (rE) was obtained using the Capital Asset Pricing Model (CAPM). For the risk-free rate (rf), we used the 10-year US treasury yield since most BP investors have access to the US capital market. For Market Risk Premium (MRP), we used NYU Stern's Equity Risk Premium[9] estimates for UK Equities which led us to an MRP of 5.48%.

To arrive at the equity beta (βe) of BP we regressed weekly returns of BP with the MSCI World Index for a five-year period. With a total of 260 observations, we arrived at a raw βe of 0.74 with a 95% confidence interval ranging from [0.53, 0.95]. With the presented confidence interval, we are confident about the value of BP's βe but to be fully confident we performed the previous regression model to our comparable group. Upon unlevering all βe with the appropriate tax rate and D/E we performed a weighted average of the BP's beta unlevered (βu) (60%) and comparables βu (40%) weighted based on how comparable we believe the

[8] Hull, John C. and Predescu, Mirela and White, Alan, Bond Prices, Default Probabilities and Risk Premiums (March 9, 2005). Available at SSRN: https://ssrn.com/abstract=2173148 or http://dx.doi.org/10.2139/ssrn.2173148

[9] Damodaran, Aswath. "Country Risk Premiums." Stern School of Business, New York University. Accessed December 15, 2024. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html.

companies are to BP. Then, we relevered the βu using our target D/E ratio of 45.2%, arriving at a βe of 0.784 as the coefficient on how BP returns follow the MSCI World Index, used here as a proxy for the market BP's investors have available. Applying the CAPM formula $rE = rf + \beta e * \text{MRP}$ we arrive at a rE of 7.93%.

Figure 16: Cost of Equity inputs

Cost of Equity	
MRP	5.48%
Rf	3.63%
βe	0.784
Re	**7.93%**

Source: Bloomberg, Own estimates

- Weighted Average Cost of Capital (WACC)

To arrive at the final WACC we estimated a fair marginal tax rate for BP of 35.29%, as the weighted average of the applicable tax rate of the 10 countries with the highest profit before tax. The applicable tax rate is normally the statutory tax rate for most countries. However, in cases where higher tax rates arise due to Production Sharing Agreements (PSAs), we applied the PSA-specific tax rate when disclosed. If the PSA tax rate was not available, we used the company's effective tax rate for 2023 as a proxy. Finally, applying the formula:

$WACC = \frac{E}{E+D} * rE + \frac{D}{E+D} * rD * (1 - t)$ we arrived at a WACC of 6.34%.

Terminal Value

We experimented with different methods for terminal value forecasting and chose the one that seemed more appropriate in the end. The key estimating item for terminal value is the terminal growth (g) also known as the steady-state or long-term growth. For stable segments, a good way to forecast its terminal growth is by assuming the UFCF growth at the last estimated period as the product of Return on New Invested Capital (RONIC) and the Retention Rate (RR). RONIC represents how much the new investments in the segment's IC are returning while the RR represents how much of the current result is being reinvested into the segment. In BP's case, we only found this method to be applicable to the C&P segment due to its stable reinvestment rate (6%) from FY30 to FY34. For RONIC we expect it to stabilize around -15.4%, reflecting capital investments in the transition from a refining-based segment to including EV and biofuels (that are capital intensive), which are expected to have lower margins and eventually lead to a deteriorating ROIC. This led us to assume a -1.0% terminal growth for the C&P perpetuity.

The G&LCE segment, having a lot of changing dynamics up until FY34, does not provide a stable RR and RONIC. Therefore, we decided to go for an average of the expected long-term growth rates for renewable energy and natural gas. For renewables, we computed the CAGR from 2030 to 2050 for Renewable Capacity (4.86%) based on data from IEA's Net Zero by 2050 report[10] and adjusted it by -0.5% since this growth implies that Net Zero will be reached by 2050, something we do not believe will happen. For Gas, we used McKinsey's forecast for total

[10] IEA (2021), Net Zero by 2050, IEA, Paris https://www.iea.org/reports/net-zero-by-2050, Licence: CC BY 4.0

Worldwide Gas Demand[11], arriving at a CAGR from 2030 to 2050 of -0.25%. We considered an even split throughout and that these CAGRs represent the UFCF growth from FY34 onward, ending up in a 2.05% terminal growth rate for the segment to be used in perpetuity.

For OP&O, due to the running down of reserves is expected to end by 2038. Having this said, the growth rate used to forecast the annuity for the last 4 years is not material to the valuation. We assumed no growth for this segment's UFCF as we believe a big portion of the segment's assets cannot be liquidated and should not impact the final UFCFs. At the same time, Cash Flow from Operations is assumed to stay constant.

OB&C was assumed to maintain its operations and was valued, therefore, in perpetuity with no terminal growth.

Figure 17: DCF valuation results

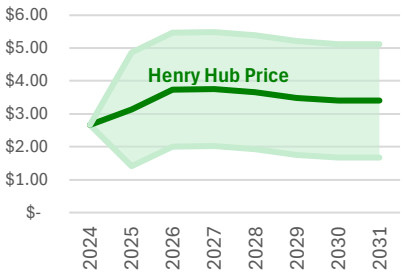
For 2025	million $
Enterprise Value	**159,126**
Net Debt	49,522
Non-controlling interest	15,863
Equity Value to shareholders	**93,741**
Diluted Shares outstanding	17,750
Share Price ($)	**$ 5.28**
Forward GBP/USD rate	0.7940384
Share Price (£)	**£ 4.19**

Source: Own estimates

Discounted Cash Flow (DCF)

To arrive at BP's Enterprise Value (EV) on the 31st of December 2025, we discounted all four segments' Cash Flows to December 2025 and added the value of non-core items from the Balance Sheet. This resulted in us valuing BP's EV at $159.1 billion in FY25. To derive the Equity Value attributable to shareholders of BP we simply deducted Net Debt, which was estimated to be 31.1% of EV, and the fair value (equal to book value in this case) of non-controlling interest which mainly represents convertible bonds explained in the *capital structure* section. We arrived at an Equity value to shareholders of $93.7 billion. Since BP's stock trades in the London Stock Exchange (LSE) and has the US Dollar as its reporting currency, to derive the share price of BP in FY25, we applied the one-year forward price for the currency pair GBP/USD of 0.794 US Dollars per British Pound to the Equity value to shareholders and divided it by the 17.75 billion diluted shares arriving at our DCF share price of £4.19.

Figure 18: Natural Gas scenario price per MMBtu range



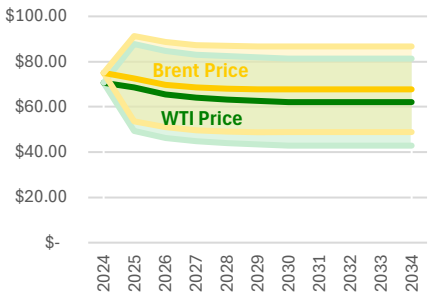
Source: Own estimates

Scenario Analysis

To support our DCF model, we conducted a scenario analysis to see how far BP's share price can go in a bullish and bearish scenario. The most important variables for this analysis are commodity prices for Brent, WTI, and Henry Hub prices since

[11] McKinsey & Company. *Global Gas Outlook to 2050*. McKinsey & Company, 2021. https://www.mckinsey.com/~/media/mckinsey/industries/oil%20and%20gas/our%20insights/global%20gas%20outlook%20to%202050/global%20gas%20outlook%202050_final.pdf

Figure 19: Crude Oil scenario price per barrel range



Source: Own estimates

they dictate the profitability of the company. Electricity prices were also analyzed but they had little impact on the company's value. One of the main limitations of our scenario analysis is how gas prices are not directly affecting gas marketing & trading results, due to a lack of information and an appropriate methodology to do so. It is also important to note that we are using the same terminal growths and WACC for both scenarios, and this will be addressed in our sensitivity analysis.

- High Price Environment Scenario

For our best-case scenario, Brent, WTI, and Henry Hub prices were assumed to be one standard deviation higher than the base-case prices, reflecting the high demand to supply for these commodities. The standard deviation was based on the quarterly historical prices of these commodities from FY19 to FY23. For electricity prices we set a 50% increase, accounting for a geographic mix involving more European presence than we expect in our base case, but also the impact of higher gas prices on the final wholesale price of electricity (especially in the US). The higher demand for gas was also considered to boost gas marketing & trading activity and has therefore considered a one percentage point boost to its growth. Some operational improvements were also taken into account making upstream production costs 10% cheaper and having lower net working capital requirements (NWCR) due to a 10% lower inventory level, a collection period as the lowest in the past five years, and a payable period as the highest in the past five years, as the company improves its contractual terms with suppliers and customers. Under the proposed conditions and assuming unchanged gearing targets, we valued BP at £6.33 per share under a long-term high-price environment.

Figure 20: High Price Scenario DCF results

For 2025		$ million
Enterprise Value		**228,379**
Net Debt		71,074
Non-controlling interest		15,863
Equity Value		**141,441**
Diluted Shares outstanding		17,750
Share Price ($)	**$**	**7.97**
Forward GPX/USD rate		0.7940
Share Price (£)	**£**	**6.33**

Source: Own estimates

- Low Price Environment Scenario

The same reasoning as in the high-price environment scenario was used in our worst-case scenario. Brent, WTI, and Henry Hub prices were assumed to be one standard deviation lower than the base-case prices, reflecting oversupply relative to demand, similar to what succeeded during the COVID-19 pandemic. Electricity prices were set to be down 50% on the base case level. With a lower demand for gas, marketing & trading revenue is expected to slowly decline as we considered a one percentage point drop to its y-o-y growth relative to the base case. Upstream production costs were assumed to be 10% higher as efficiency worsened. Regarding NWCR inventories were expected to pile up and increase by 10%, while the payable period would be at the lowest level of the past five years, and the collection period at the highest. Assuming again the same gearing, in a long-term low-price environment, we valued BP at £2.07 per share.

Figure 21: Low Price Scenario DCF results

For 2025		$ million
Enterprise Value		**90,252**
Net Debt		28,087
Non-controlling interest		15,863
Equity Value		**46,301**
Diluted Shares outstanding		17,750
Share Price ($)	**$**	**2.61**
Forward GPX/USD rate		0.7940
Share Price (£)	**£**	**2.07**

Source: Own estimates

Sensitivity Analysis

While using the DCF method, there is uncertainty over the discount rate to be used and the terminal growth rate of future cash flows. These two elements are crucial to determining the value of a company and are very sensible to small movements. For this reason, we conducted a sensitivity analysis to find BP's price range when tuning these variables.

For the WACC, we looked at the 95% confidence interval we got from our regression of the equity beta (βe) [0.526, 0.954] and got the WACCs for these limits [5.37%, 6.98%]. For terminal growth, since for most segments RONIC and RR could not be used, we decided simply to test for each terminal growth what would be the impact of 60 basis points (bps) higher or lower terminal growth for each step, making up for a range from -120 bps to up 120 bps for each segment's terminal growth. For our base case, our sensitivity resulted in a share price range from £3.51 up to £6.06, which seems reasonable to us.

Figure 22: Sensitivity on WACC and terminal growth

WACC	Segment terminal growth adjustment				
	-1.20%	-0.60%	**0%**	0.60%	1.20%
5.37%	£4.40	£4.65	£4.98	£5.42	£6.06
5.85%	£4.09	£4.29	£4.55	£4.88	£5.34
6.34%	£3.82	£3.99	**£4.19**	£4.45	£4.79
6.66%	£3.66	£3.81	£3.99	£4.21	£4.50
6.98%	£3.51	£3.64	£3.80	£4.00	£4.24

Source: Own estimates

The same approach was used to test the sensitivity of our high-price and low-price scenarios. For the high-price, we found the share price to be between £5.33 and £9.10, while in the low-price scenario, it was between £1.70 and £3.06. This shows how sensitive our model is to the cost of equity and the terminal growth rate for each segment.

We are aware that tax shields are not always recoverable if BP has losses in a subsidiary, and therefore want to evaluate what would be the impact on the WACC and subsequently the share price if we vary the fair marginal tax rate. Keeping everything else the same, in the extreme scenario where no tax shield exists the share price would be £3.89, but in a more reasonable example where the marginal tax rate for tax shields is 20%, the share price would be £4.06. That is a 3.2% difference relative to our expected DCF price with a marginal tax rate of 35.29%.

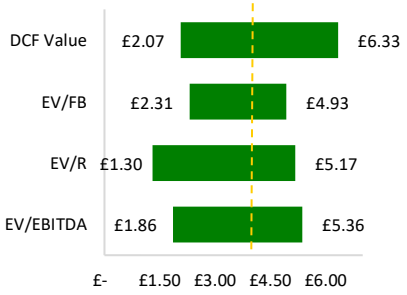
Figure 23: Marginal tax rate impact on WACC and share price

Tax rate	WACC	Share price
0.00%	6.82%	£ 3.89
10.00%	6.68%	£ 3.98
20.00%	6.55%	£ 4.06
30.00%	6.41%	£ 4.15
35.29%	6.34%	£ 4.19

Source: Own estimates

Final Recommendation

Figure 24: Football field chart



Source: Own estimates, Bloomberg

Following our DCF valuation, the method we believe to be more accurate, we expect BP's share price to be £4.19 as of December 31st, 2025, appreciating 5.91% over the current share price of £3.96 on December 13th, 2024. On top of this, BP is well-known for its dividend policy and its average dividend yield for the past five years was 5.25%. With this, we assume BP will distribute annual dividends amounting to £0.21 during FY25. Therefore, we issue a **BUY** recommendation on BP's stock with a total expected shareholder return of 11.15%.

BP P.L.C

COMPANY REPORT

OIL AND GAS

17 DECEMBER 2024

TIAGO CORREIA & VASCO GOUVEIA 46817@novasbe.pt/46852@novasbe.pt

Fueling the Future With Renewables

A deep analysis on BP PLC

- The company finds itself in a transitioning industry, with the tough task of maintaining their fossil fuels identity while integrating renewables in their portfolio and keeping their Net-Zero ambitions.
- BP is falling behind in their replacement of upstream reserves over the past four years, with a Replacement Ratio of -28.4% while competitors show far healthier Replacement Ratio of 65% on average, entailing that BP can enter concerningly low levels of reserves in the near future following the current trends.
- Revenue from Renewable Energy is expected to grow at a remarkable pace, $CAGR_{24\text{-}30}$ of 33.45%, powered by the full integration of BP Lightsource and plans to expand its offshore wind portfolio. Nevertheless, it is expected to represent just short of 1% of total revenues in FY30.
- The price target presented through the DCF valuation shows that despite deteriorating performance, BP still holds more intrinsic value to shareholders than priced by the market as of December 15th.

Company description

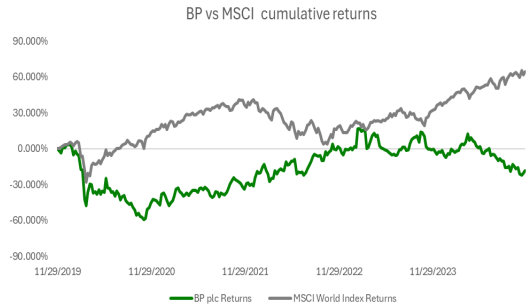
BP P.L.C is an Oil & Gas giant present in both Upstream, Midstream and Downstream activities. Recently, it has also picked up on renewable energy opportunities as it tries to transition from an OIC to an IEC. The company is present in more than 70 countries worldwide and had 87,800 employees in FY23.

Recommendation:	**BUY**
Total Shareholder Return	*11.15%*
Price Target FY25:	**4.19 £**
Dividend Yield	*5.25%*
Price (as of 15-Dec-24)	**3.96 £**

Reuters: BP.L, Bloomberg: BP/:LN

52-week range (£)	3.65-5.42
Market Cap (£m)	62,122
Outstanding Shares (m)	17,360

Source: Reuters, Bloomberg, Own Estimates, Annual reports



Source: Bloomberg

(Values in € billions)	FY23	FY24F	FY25F
Revenues	238.1	215.4	202.3
EBITDA	46.3	32.7	31.1
Net Profit	21.4	11.6	10.6
EPS	0.85	0.61	0.55
EBITDA Margin	19.4%	15.2%	15.4%
UFCF	12.9	8.7	12.8
ROIC	17.2%	9.0%	8.4%

Source: Annual Reports & Own Estimates

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Company Analysis

Figure 1: BP External Revenues in billion USD

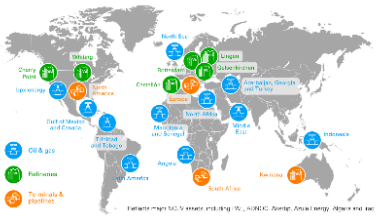
Source: BP Annual Reports

BP P.L.C. (from here on referred to as BP) is a global player in the oil and gas sector with the aim of becoming an integrated energy company. Headquartered in London, it is one of the biggest players in the industry, holding significant influence over global energy markets, and competing with other giants like Repsol, Shell, Eni, and TotalEnergies. BP asserts its presence through an extensive, vertically integrated business model that spans from upstream activities (exploration and production of oil and gas) to downstream ones (refining, distribution, and retail), as well as integrating convenience sales and lubricants, and others, amounting to over 12 million customer touchpoints per day. Covering both upstream and downstream allows BP to retain full control over the various stages of its supply chain, being in control of its product from the moment of extraction to the moment of its final usage, which will be beneficial in terms of cost efficiency, market exposure, and strategic leverage.

Founded in 1909, BP has developed a strong market presence in markets across the world, greatly through its branding, which is significantly supported by having built a global network of retail and fuel stations, as well as important connections and acquisitions throughout global markets, with particular emphasis in Europe and the USA.

To segment its business, BP organizes itself in 4 main segments, with each playing a critical role in the company's success, these are: Oil Production & Operations, Gas & Low Carbon, Customer & Products and Other Businesses & Corporate.

Figure 2: BP Pipelines, Refineries and Extraction Sites

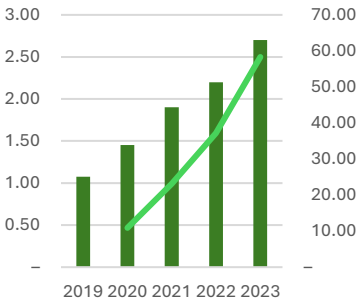


Source: BP Annual Report 2023

Oil Production & Operations (OP&O) still acts as the backbone of the company, encompassing essential activities across the company's *core business*, including activities like exploration and discovery of new oil fields and actual hydrocarbon extraction through oil wells. In such a competitive industry it is also crucial for BP to employ advanced technologies and innovative methods to maximise resource recovery and minimize emissions, while ensuring efficiency maximisation as well as safety for their employees.

The **Gas & Low Carbon Energy** (G&LCE) segment integrates BP's natural gas capabilities with its growing portfolio of low-carbon energy solutions. Natural Gas plays a vital role in BP's strategy, as a cleaner-burning fuel that can help reduce the carbon footprint when compared to coal or oil. Maximizing this opportunity, BP produces and markets Natural Gas and Liquefied Natural Gas (LNG), delivering it to domestic and global markets.

Figure 3: BP Installed Capacity and Renewables Pipeline Evolution



Source: BP Annual Reports

BP is also investing heavily in renewable energy sources such as wind and solar. The company has a significant pipeline of offshore wind projects and operates several onshore wind farms, with a total pipeline of 58.3 GW. These renewable energy projects are essential for reducing reliance on fossil fuels and supporting the transition to a Low Carbon Energy system. Not only this, but BP is developing hydrogen production and carbon capture and storage (CCS) projects. Hydrogen is seen as a key component of the future energy mix, particularly for hard-to-decarbonize sectors, while CCS technology is crucial for capturing and storing carbon emissions from industrial processes.

Power trading is another important aspect of this segment, allowing BP to optimize its energy portfolio and support the integration of renewable energy into the grid. Consisting of an array of derivative instruments whether purely financial or with physical exchange, BP can balance supply and demand, as well as ensure a hedging position to minimize the risk associated with the company's portfolio, which consists of a lot of assets volatile to market prices.

Customer & Products (C&P) stands as the most expressive sales-wise with more than 159 billion in FY23 and representing almost 80% of the company's revenue in the past 5 years. Dedicated to delivering energy products and services to millions of customers around the globe, this segment includes BP's extensive retail network, which comprises over 21,100 branded retail sites worldwide. Most of these sites offer fuel, lubricants, and convenience products, catering to the diverse needs of consumers. BP is also expanding its electric vehicle (EV) charging network through BP Pulse, reflecting the company's commitment to supporting the transition to cleaner transportation options, and has announced a partnership with Iberdrola in the efforts to acquire a very strong position in the Iberian market by adding up to 11,000 charging points across the peninsula.

In the aviation sector, Air BP supplies aviation fuel and services and has also started to integrate a sustainable strategy in the aviation market, with their first sale of Sustainable Aviation Fuel (SAF in November of 2023).

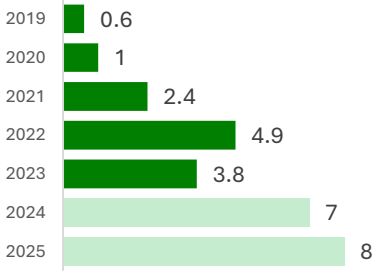
Furthermore, BP's Castrol brand, known for its high-performance lubricants, serves the automotive, marine, industrial, and energy sectors. Castrol's innovative products are designed to enhance performance and efficiency, meeting the demands of modern machinery and vehicles.

In addition to these activities, BP also operates a wide array of transporting vessels, terminals and pipelines, allowing for a constant supply of resources to reach critical markets for the company, maintaining the flow of energy that powers economies and daily life.

Finally, within **Other Businesses and Corporate** (OB&C) are comprised all activities that don't fall into any of the previous categories, but are still very relevant to the normal course of business in BP, like administrative expenses, some parts of research and development, activities related to joint ventures, etc.

Environment, Social and Governance are 3 pillars of BPs identity, giving a lot of importance to these factors. Environmentally, BP has committed to achieve carbon neutrality by 2050, a very drastic promise for a company relying very heavily on fossil fuels. Nevertheless, this claim does not hold value unless it is followed through, and with BP standing as the 6th company with the most carbon emissions since 1965[1], which may leave investors skeptical.

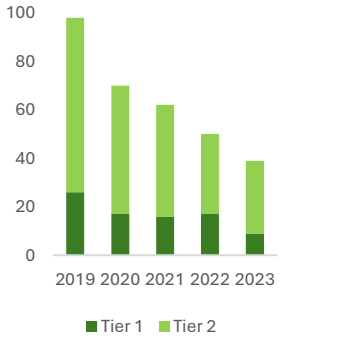
Figure 4: BP Investment in Transition Energy, in billion USD



Source: BP Sustainability Reports

Regarding Corporate Social Responsibility, the company holds several initiatives, like the high investment in renewable energy as a way to transition their energy portfolio, and collaboration with entities to preserve biodiversity in the regions in which they operate, especially in a business that can hold an elevated risk on endangering nature. BP also has projects to develop local communities, like improving infrastructure and safety around the fishing industry in Ndiago, Mauritania, by building infrastructures to increase working conditions or the Sweet Gold project in Azerbaijan to help honey-producing families to be able to compete in a competitive honey market.

Figure 5: BP Yearly Process Safety Events



Source: BP Sustainability Reports

Furthermore, BP's 87,800 employees are the essence of BP and actions have been put in place to increase safety measures that have made an impact in decreasing process safety events (PSEs), with nineteen employees and contractors having died worldwide in the past 10 years, compared with 128 deaths between 2002 and 2012[2]. Shell, for example, has experienced 22 deaths in only the last 5 years despite only having 17,9% of extra workforce.

Governance-wise, BP has a split ownership structure, with more than 20% belonging to several institutional investors, the biggest one being BlackRock, and the remaining all being spread out across the general public. In terms of leadership, the current CEO is Murray Auchincloss was appointed after significant uncertainty regarding the leadership of the company, with the former Chief Executive Officer quitting after only 4 months on the job. Auchincloss came in as an internal hire, being promoted from CFO, and with the promise of maintaining the strategic goals of his predecessor.

[1] Taylor, M., & Watts, J. (2021, August 25). Revealed: the 20 firms behind a third of all carbon emissions. *The Guardian*. https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions
[2] Jacobs, J., & Wilson, T. (2022, September 29). BP faces growing scrutiny over latest fatal accident in US. *Financial Times*. https://www.ft.com/content/a64c0568-a76d-47b5-9d49-7dc2780d5adc

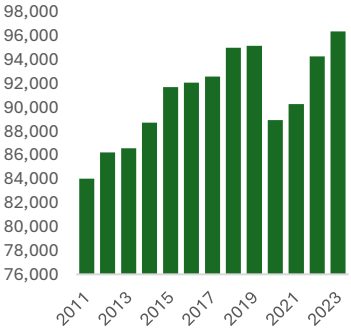
Industry Analysis

Global preferences are changing, causing global demand for low-carbon energy to be significantly on the rise as well as casting a shadow on high-carbon emitting companies. In the context of the Oil and Gas company markets, the pressure to change is unprecedented, and with the finite nature of global oil reserves, BP and its competitors know that change is becoming a necessity instead of an option.

Market Analysis

- Upstream

Figure 6: World Oil Production Level



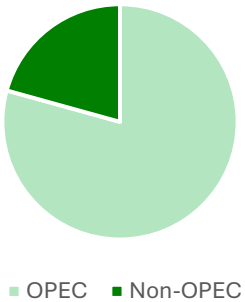
Source: Statista

Oil Market

The upstream segment of the oil business, which consists of the exploration, extraction and production of oil[3], has shown remarkable resilience despite resistance from geopolitical shifts, the pressure for countries and companies to become more clean energy dependent, like the Paris Agreement, and also when considering technology improvements, which continuously increase the alternative energy methods to oil, like the rise in biofuels, or hydrogen energy.

Regarding the overall market production trends, these are intrinsically related to the geopolitical aspects of the oil market, with global dynamics being heavily impacted by country relations and strategic political moves, making it essential to discuss OPEC dynamics.

Figure 7: Share of World Crude Oil Reserves



Source: OPEC Annual Statistical Bulletin 2024

Global economies were shaken by the steep rise in oil prices in the 1970s. The members of the Organization of the Petroleum Exporting Countries (OPEC), formed in 1960, together controlled a high proportion of global oil resources. They began to work together as a **cartel**, restricting access to Middle East oil and hence raising prices[4]. With OPEC being still in action today, now woth more member countries, and currently controls roughly 40% of the world's oil demand and more than 80% of proven oil reserves[5], it becomes therefore fundamental to analyze OPEC predictions to see the market as a whole.

[3] Energy Institute. (June 20, 2024). Oil production worldwide from 1998 to 2023 (in 1,000 barrels per day) [Graph]. In *Statista*. Retrieved December 15, 2024, from https://www.statista.com/statistics/265203/global-oil-production-in-barrels-per-day/

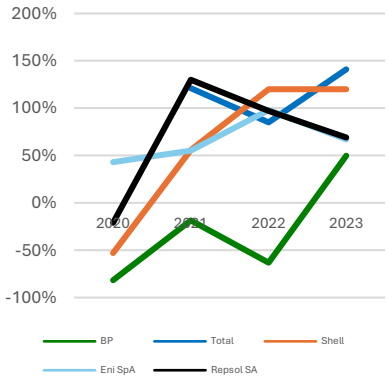
[4] The Economy 2.0 - *8.8* Application: Market dynamics in the oil market. (n.d.). https://www.core-econ.org/the-economy/microeconomics/08-supply-demand-08-market-dynamics.html

[5] World Economic Forum. *Explainer: What is OPEC?* (2024, September 10). https://www.weforum.org/stories/2022/11/oil-opec-energy-price/

Figure 8: Onshore/Offshore Oil production split (%)

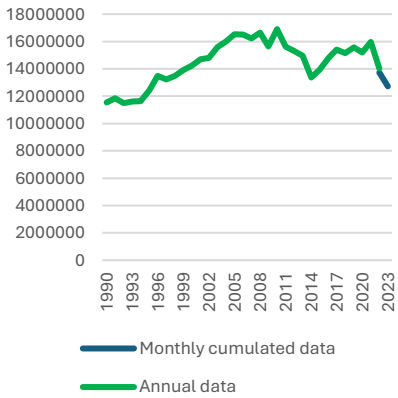
Source: Statista

Figure 9: Replacement Ratio of Reserves



Source: Annual Company Reports

Figure 10: Inland demand of natural gas, EU (terajoules)



Source: Eurostat

OPEC has been postponing their announced output hike repeatedly, with the latest news announcing that it will occur in April 2025. However, with world oil demand increasing and world oil production forecasted to rise slowly, and only mainly in the Asian-Pacific region, it cannot be taken for granted that this will indeed occur, since it implies a decrease in world prices.

Exploration-wise, a slow trend can be inferred in that offshore production is becoming increasingly scarce, indicating that onshore producers may be increasing their market share, perhaps due to the lower operating costs that come with that type of operation. Nevertheless, offshore production is crucial to meet market demand. In this context, BP inserts itself mostly in offshore market production, with oil rigs spread out across the globe. It takes advantage of its very efficient supply chain to transport value and achieve advantages that less globalized companies cannot, like a closer distance from production to the sale point.

Furthermore, the limited quantity of known fossil fuel reserves indicates that further investments must be carried out to find new wells and increase production streams, with countries like Guyana and Namibia being instrumental in increasing known reserves. Despite BP being heavily invested in both of these exploration markets, a concerning sign that arises is their replacement rate of reserves, which is very low, even negative in some years (which implies the sale of oil fields). This may be interpreted as a transitioning company, but it can also be seen as one losing a grasp of where its core strengths lie. To add on to the second argument, we can see how BP compares to its comparable companies and how different its behaviour is, whereas other companies mostly suffered in 2020, to replace their reserves, for the most part, they kept consistently high ratios in recent years, and in BPs case they seem to be falling short.

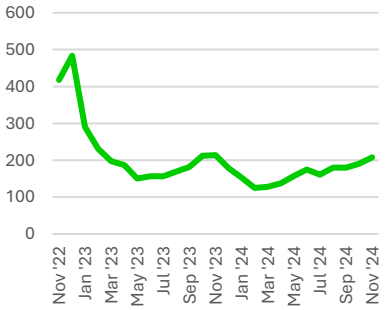
Gas Market

The global Natural Gas market is navigating a complex landscape with several trends and dynamics shaping its current state.

Global Natural Gas demand has been shifting quite significantly, with Europe's demand decreasing from 2022 levels, as the drastic measures of leaving Russian energy dependency cool down, and showing no signs of recovery. Asia-Pacific on the other hand is a driver for growth in this sector with growing demand trends.

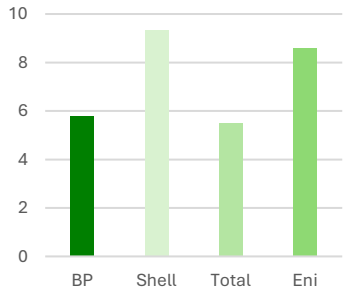
The gas market is becoming instrumental in the transition to decarbonization, making its potential for growth very interesting. However, it has still fallen victim to a very sharp increase in prices in 2022-23 as a result of the Russia-Ukraine conflict. This trend has been compensated for in 2024, which has led to a quite

Figure 11: Monthly natural gas price index worldwide



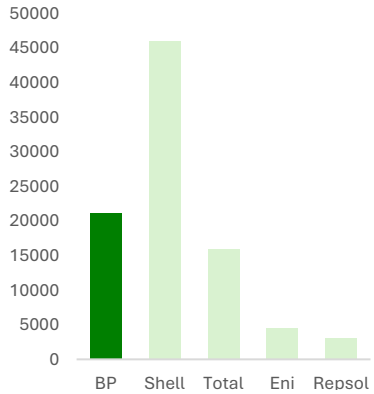
Source: Statista

Figure 12: Production Cost ($/boe)



Source: Company Annual Reports

Figure 13: Worldwide retail sites



Source: Company Annual Reports

drastic fall in quarterly revenues for the year for companies like BP, with high likelihood of maintaining this lower price trend to 2025. As a transitioning energy company, Gas takes a big part in BPs efforts to achieve carbon neutrality, and this has meant a big blow to a very important and value-driving sector.

Despite stabilizing somewhat from the shocks of 2022, the market remains vulnerable to policy changes and the geopolitical tensions mentioned in the Oil sector.

Sustained investment in infrastructure, coupled with strategies for demand management and diversification, will be key to addressing the evolving challenges in the global gas sector. However, in this segment, BP illustrates a similar trend to the Oil one, where the replacement rate is concerningly volatile, fundamenting our scepticism that reserves will keep ideal production levels and will instead steadily decrease.

In general, **BP's upstream** production, despite showing signs of efficiency, as one can see based on its cost $/boe, is struggling to keep up with the rest of the market when it comes to ensuring the future of its reserves. In an industry that suffers so much from the scarcity of resources, it will be integral for BP to attack this front in order to keep being competitive going forward. Also, controlling volatility exposure in its portfolio can be crucial to ensure revenue streams in a generally volatile environment

- Downstream

Customer and Products

The downstream segment consists of a plethora of offerings that range from the refining and selling of fuels to distinct markets, like aviation fuel and gas stations for example, to the sales in convenience stores, EV charging stations and lubricants.

The **Retail Fuels** market is intuitively one of reduced elasticity, with these types of fuels being essential for in general mobility, with uncertainty being associated mainly with the replacement potential of EV mobility (which will be discussed ahead). On the supply side, retail and convenience-associated businesses have been becoming more attractive, with the acquisition multiple for convenience businesses nearly doubling in recent years[6] as companies seek to capitalize on

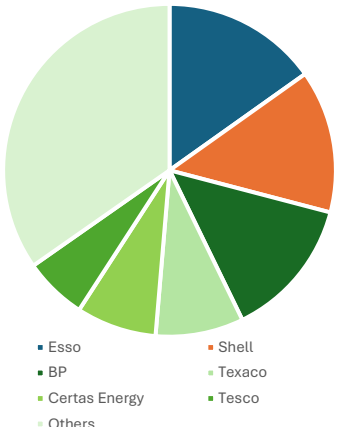
[6] *Fuel retail in the age of new mobility*. (2021, April 1). McKinsey & Company. https://www.mckinsey.com/industries/oil-and-gas/our-insights/fuel-retail-in-the-age-of-new-mobility

the potential for alternative offerings as well as the constant returns that come with an inelastic demand.

Important market dynamics involve governments' behaviour towards these types of goods, which has been one of increasing taxation in order for alternatives to become competitors in the mobility market.

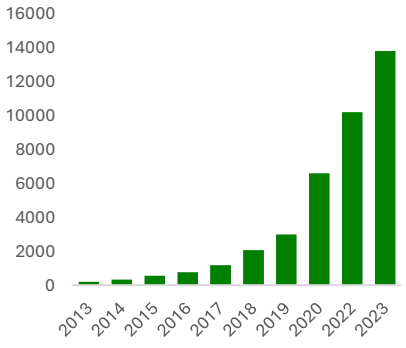
This sector is one of the main value drivers in BP's downstream segments, which takes advantage of the network of selling points available, the additional revenue that arises from complementary sales in the **Convenience** business, and the synergies with their **EV charging** business, which is also present in petrol stations. As we can see, in the UK, BP holds a very significant portion of the gas station market share with main rivals in this market Esso and Shell. World wide Shell is significantly ahead in BPs competitor group with BP still having very significant presence, with their 21,100 worlds wide retail stores.

Figure 14: Gas station ownership in the UK



Source: Statista

Figure 15: Plug in EV sales in thousands



Source: IEA

Convenience sales act as a way for BP to increase margins in this segment, as the competitive nature of retail fuels shrinks margins. EV charing, on the other hand, acts more as a competitive advantage, not only by increasing the number of offerings in a single location, but by investing in BP Pulse, BP is investing in the future of mobility, and having the necessary infrastructure in place will be crucial as EV keeps penetrating the mobility market. Already operating over 35,000 EV Charging stations, and planning to expand significantly. Even when adding the 11,000 charging points that will arise from the partnership with Iberdrola, BP still operates less charging points than both Total and Shell (both having more than 60,000), which is to be expected as these are considerably bigger companies.

Furthermore, incorporating these offerings into one buying experience has allowed for increased revenue per customer visit and an overall better customer experience. Not only this, but taking advantage of a rather inelastic demand results in a consistent stream of income for BP, crucial in a business that is, for the most part, plagued by market volatility. Nevertheless, fierce competition, small margins and significant volatility in fuel prices are still major factors when weighing pros and cons of retail fuel and associated streams.

Lubricants are inscribed in a market that has achieved significant maturity, with a forecasted CAGR of 2.3% expected for FY19 to FY32[7], making it low-growth but of significant value. With this growth mostly forecasted to be provenient from China and the Asia-Pacific region, to support their rapidly industrialising economy.

[7] *Lubricants market size, industry share, growth rate, 2032*. (n.d.). https://www.fortunebusinessinsights.com/industry-reports/lubricants-market-101771

Despite being a less representative revenue stream for BP, with the main vehicle for these types of revenue being Castrol, one the businesses responsible for the sale of high-performing lubricants, which has significant influence in important markets like India, where they have achieved 38,7% of market share in the automotive sector, as well a significant leadership in indias overall market[8].

Despite the small proportion in BPs overall business, Castrol still shows strong returns, with an EBIT of 730 million USD. Unfortunately, there are no reported results for the sales associated with Castrol's worldwide operations, but by the nature of the business, which typically has higher margins due to sales directly to consumers and less competitive market dynamics, one can deduct that this segment creates significant value for the company.

Through its aviation division Air bp, is also a player in the global **aviation fuel** market. It supplies both conventional jet fuel, which represents the vast majority of the portfolio, as well as sustainable aviation fuel (SAF). SAF is designed to provide up to an 80% reduction in the lifecycle carbon emissions when compared to traditional jet fuel and is produced using sustainable. However, SAF has only debuted in 2021, and the first transatlantic journey made solely using SAF was in November 2023. It is therefore an extremely recent product that is still yet to make a significant dent in the aviation fuelling market.

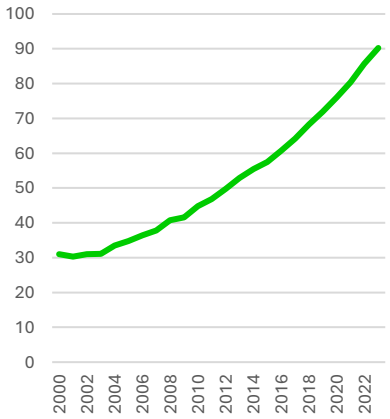
- Renewables

The renewable energy market is currently experiencing strong growth, driven by technological innovation, policy support, and increasing global demand for sustainable energy solutions. Solar and wind are the primary sources of renewable energy, with solar energy leading global expansion.

Key factors driving growth include the rising need for cleaner energy sources to combat climate change, the falling costs of renewable technologies, and the expansion of policies like tax incentives and government grants. This has made renewable energy more competitive with traditional energy sources. Countries such as India, the U.S., and those in the EU are seeing substantial investments in renewable infrastructure

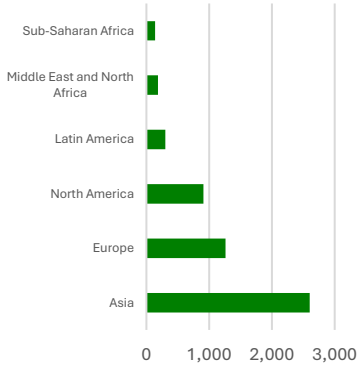
Additionally, the global push towards renewables has attracted significant investments, with major players in the market—like Siemens Gamesa and General Electric—focusing on advancing renewable energy technologies. The sector's

Figure 16: Global renewable energy consumption, in exajules



Source: Statista

Figure 17: Renewable power capacity targeted globally 2030, by region (GW)



Source: Statista

[8] Moneycontrol. (August 24, 2023). Leading lubricant companies in India as of August 2023, by market capitalization (in billion Indian rupees) [Graph]. In *Statista*. Retrieved December 16, 2024, from https://www.statista.com/statistics/1322699/india-leading-lubricant-companies-by-market-capitalization/

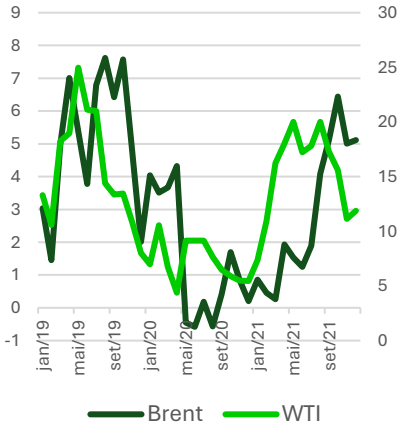
ability to attract competition is essential to its cost-effectiveness but does imply lower returns for companies entering the space.

BP's position in the market is not one of competitive advantage, as it is still falling behind some of its main competitors, having only 2,7 GW of installed capacity compared to TotalEnergies' 13 GW or Shell's 3,2 GW. Seeing a company who publicly claims to be heavily committed to increasing their renewable output one could say that the installed capacity is underwhelming. On a positive note, they do have over 6 GW that have been given a Final Investment Decision (FID) and BP has agreed with Lightsource (a BP renewables joint venture), the acquisition of the remaining 50% of the company, which holds 2,18 GW of installed capacity, and deep know how of the industry.

Main Market Risks

BP faces several key market risks that could influence its financial and operational stability:

Figure 18: WTI and Brent Refining Margins $/bbl



Source: IEA Monthly Oil Market Reports and OPEC MOMR

BP is subject to high **variations refining margins** due to stronger or weaker oil and gas prices, as has happened in 2024. Coupled with volatility and uncertainty related to global demand, these trends can lead to substantial financial setbacks. Refining adjustments, such as scaling back operations are very costly in such a machinery-heavy business, making adapting to changing trends a big challenge for companies, as was very noticeable during the pandemic, with oil price crashing and companies enduring heavy losses

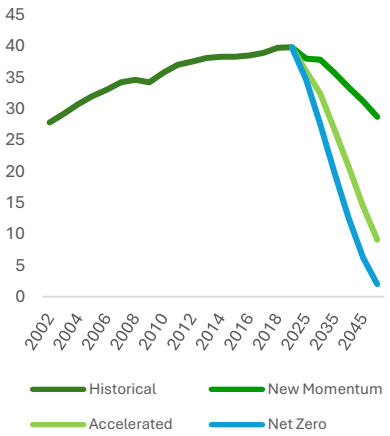
BP has modified its energy transition strategy under CEO Murray Auchincloss and his predecessor , investing in some renewable initiatives while divesting from some oil related activities, like the sale of part the gelsenkirchen plant to INEOS. Nevertheless, BPs main business has always been fossil fuel related and in making commitments like becoming net-zero implies that the company mus fundamentally change, leaving a lot of room for uncertainty.

Oil prices are currently impacted by factors such as uneven global demand recovery, geopolitical tensions, and OPEC production cuts countered by increased supply from other countries. These dynamics create price volatility that can affect BP's revenue streams

Global conflicts, regulatory changes, and potential disruptions in key regions like the Middle East or Europe pose risks to supply chains and operations. Environmental scrutiny could also increase compliance costs and operational restrictions

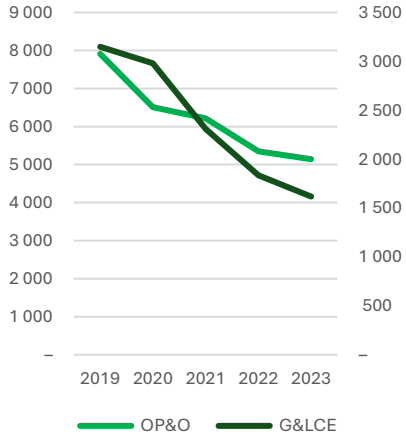
Energy transition

Figure 19: Current path of carbon emissions in the oil industry



Source: BP Energy Outlook 2023

Figure 20: BP hydrocarbon Reserves, in mmboe



Source: BP Annual Reports

As highlighted in the analysis, the energy transition remains a central and pivotal factor for BP and the broader industry, serving as a critical consideration when evaluating this sector.

BP's energy transition strategy, centered on its commitment to achieving net zero emissions by 2050, plays a defining role in its corporate identity and is an unavoidable consideration in this analysis. Despite aligning with global efforts to combat climate change, this highly ambitious goal poses significant challenges in terms of its execution. According to the International Energy Agency, Oil and Gas companies have only invested around 2.5% of their capital spending in clean energy[9], with BP being at the forefront with a 7.7% investment. Nevertheless, at the pace at which the market is transitioning toward low-carbon energy solutions, it seems too optimistic to believe BP's claim.

While there is growing momentum in renewable energy development and decarbonization initiatives, the market's overall speed remains far below expectations, and with significant variations across regions. This uneven progress will add to the complexity of meeting its targets within the proposed timeframe.

A critical factor influencing BP's transition is the rapid depletion of its traditional hydrocarbon reserves. As the company moves away from fossil fuels to align with its Net-Zero objectives, its capacity to generate revenue from these assets diminishes significantly as scale decreases. The difference in the declining rate of reserves to its peers is critical because it implies a much different approach in the quest of becoming an integrated energy company. On one side, it may pressure BP to accelerate investments in renewable energy and other low-carbon technologies to replace the revenue streams, but this shift might be too drastic as the development of the renewable sector will be effectively funded by the success of the Oil and Gas ones, not to mention the operational, financial, and market risks, particularly in ensuring that new ventures yield comparable returns.

In parallel, BP has faced accusations of greenwashing, a challenge that many companies in the energy sector encounter as try to navigate the transition towards clean energy. Critics argue that regardless of BP's efforts to publicly claim sustainability and decarbonization, its continued investments in fossil fuels and the scale of its green initiatives do not fully align with its stated goals. This scrutiny underscores the importance of transparency and results in shaking stakeholder trust and leads to struggles in maintaining credibility in the market.

[9] *Executive summary – The Oil and Gas Industry in Net Zero Transitions – Analysis - IEA*. (n.d.). IEA. https://www.iea.org/reports/the-oil-and-gas-industry-in-net-zero-transitions/executive-summary

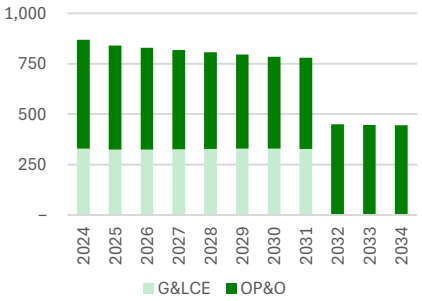
Moreover, BP's investor profile is evolving as a direct consequence of its energy transition strategy. Traditional investors focused on consistent returns from hydrocarbons are becoming increasingly wary of changes in the nature of Oil and Gas companies as these pivot towards sustainable energy streams, while a new wave of environmentally conscious investors and institutions, prioritizing ESG (Environmental, Social, and Governance) metrics, is gaining prominence. This shift is bound to influence BP's strategic priorities, as their current investor profile is heavily influenced by the previous strategy of the company, where investment yielded predictable returns, whereas new-wave investors may find the company's portfolio shy of what they pertain from their investment strategy. Finding the balance within the company's portfolio will be crucial to attract more types of investors.

In conclusion, BP's energy transition reflects a complex interplay of ambitious targets, market dynamics, operational challenges, and shifting stakeholder expectations. Successfully navigating these factors will determine the company's ability to establish itself as a leader in the low-carbon energy landscape while maintaining financial resilience.

Valuation

To fundament our investment recommendation on BP we valued the company using a sum of the parts valuation and a comparable companies multiples valuation. In the first, we valued each segment independently while in the second we applied our comparable group's multiples to forecast the Enterprise Value and Equity Value of BP as a whole. As BP's segments are complex and the company does not report all data on each, especially in terms of cost structure and some balance sheet items, assumptions were taken to enable the sum of the parts valuation, meaning some segment items may not represent the exact amounts allocable to the respective segment.

Figure 21: BP hydrocarbon production forecast (mboe/d)



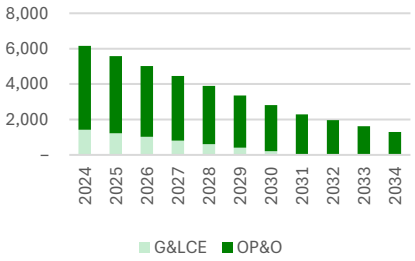
Source: Own Estimates

Production and Reserves Outlook

Upstream production is a core component of BP's operation. We forecasted production for the G&LCE and OP&O segments separately, considering some of the company's strategic objectives and our own opinions. For FY24 we used data available up to the 3rd quarter and assumed that total year production would be around the average of the past three quarters, which seems likely. For FY25 the company has shown interest in achieving 2,300 mboe/d of total hydrocarbon production as it starts to scale down its production in line with its strategic objectives. It is also set to achieve 2,000 mboe/d of total hydrocarbon production

by FY30, but we forecast them to scale it down only to 2,150 mboe/d as we do not expect them to transition that fast into lower carbon businesses, and global demand for hydrocarbons is expected to stay high at 105.4 mmboe/d in FY30 growing from the 103.2 mmboe/d in FY24 according to the IEA[10]. As part of the company's transition, we expect their production mix to shift slightly in favor of Natural Gas, reaching 42% of total production by FY30 compared with 38% in FY24. From FY31 to FY34, we set production for both segments to go down by 0.6% y-o-y as we expect Oil and Gas demand to slowly start declining worldwide.

Figure 22: BP total hydrocarbon reserves forecast (mmboe)



Source: Own Estimates

For us one of the biggest concerns about BP is its reserves. The company shows a low amount of proved reserves relative to its peers with only 8 years in reserves at current production levels and has dropped reserve-replacement-ratio as a key metric they monitor. This makes us highly uncertain of how fast the company is expecting to search for and explore new reserves. The replacement ratio has been very volatile in the last few years, especially due to sales of mature oil fields, but we are confident that BP will deploy capital to replace some of its reserves. We have assumed that BP will maintain a G&LCE replacement ratio of 38.2% meaning reserves will last until FY31 at the estimated production rate, and a replacement ratio of 26.8% for OP&O meaning reserves will last until FY38 at the estimated production rate. We expect higher replacement of lower emission hydrocarbons such as gas since BP is pressured to decarbonize its operations and we believe regulation will incentivize gas exploration over oil exploration.

Revenue Forecasting

The revenue of the three main operating segments was estimated from FY24 to FY34 based on relevant value drivers. For the multiple variable regressions, the models were made on data from Q1 2019 to Q3 2024. From FY31 to FY35 the FY30 trajectory was assumed to maintain itself.

Gas & Low carbon energy (G&LCE)

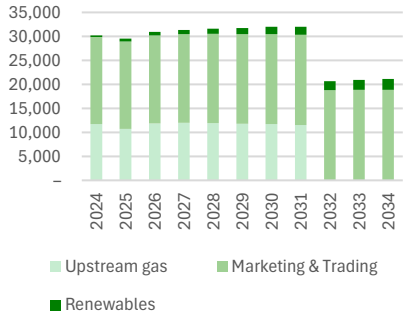
This segment includes multiple revenue streams which are hard to separate due to the lack of data reported by the company on this matter. We have identified three revenue sources: upstream gas production, gas marketing & trading, and renewables. For the upstream component, we use a multiple-regression model using quarterly average Henry Hub Natural Gas Prices[11] and total hydrocarbon production from G&LCE as independent variables. The model presented a R-

[10] IEA (2024), *Oil 2024*, IEA, Paris https://www.iea.org/reports/oil-2024, Licence: CC BY 4.0
[11] International Monetary Fund, Global price of Natural Gas, US Henry Hub Gas [PNGASUSUSDQ], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PNGASUSUSDQ

squared of 0.78 with both variables proving significant at the 95% confidence interval. The obtained model was the following:

$$Gas\ upstream\ revenue = -6054 + 440.9 * Henry\ Hub\ price + 8.28 * Production$$

Figure 23: G&LCE Revenue Forecast ($ million)



Source: Own Estimates

For Gas Marketing & Trading, we forecasted that revenue would normalize after turmoil periods with the COVID-19 Pandemic and the Ukraine War. Therefore, we based our revenue estimation for FY24 on the average revenue from FY19 and FY21 as they represent better the normal operating revenue from the company. We set revenue to increase by 0.6% y-o-y until FY29 and 0.2% y-o-y until FY34, this is, slightly down from McKinsey estimates for global gas demand growth[12], since it is expected to come especially from Asia, and this growth will more likely be captured by Chinese oil giants like Sinopec and CNPC while the European market is set to slow down.

For Renewables, revenue depends on total installed capacity, load factor, and price. We have not included hydrogen and CCS estimations as these are far from being operational in the next decade. We expect the total installed capacity for solar to reach around 10GW by FY30 through the acquisition of BP Lightsource and its ongoing project deployment. For wind we expect them to achieve 3 GW by FY30 through their German offshore concessions and plans on the North Sea. Currently, almost all renewable capacity is in the US market, but the Lightsource consolidation will bring renewables from Europe, Brazil, and Australia. Load factors for solar were assumed to stay constant at around 24.1%, the average of the last 5 years in the US, while for wind they were assumed to increase up to 40% in 2030 as BP intends to expand its offshore wind business which has higher load factors compared with onshore. Finally, BP has some Power Purchase Agreements (PPAs) but the agreed-upon price is not made public, therefore, we assumed that they will sell at market prices. Electricity prices are extremely volatile and are very different from region to region. From FY19 to FY23, BP's renewable activity was primarily in the US, therefore we used the average wholesale price of electricity in the US[13] to forecast BPs renewable revenue. Electricity prices are highly tied to Natural Gas since a relevant share of electricity production comes from Natural Gas, this relationship is expected to fade as renewable generation picks up. For FY24 the average assumed price was 40 $/MWh since the production is still majorly US-based, but from FY25 onward an average price of 50$/MWh was used to account for other geographies such as Europe, which historically has had higher

[12] McKinsey & Company. *Global Gas Outlook to 2050*. McKinsey & Company, 2021. https://www.mckinsey.com/~/media/mckinsey/industries/oil%20and%20gas/our%20insights/global%20gas%20outlook%20to%202050/global%20gas%20outlook%202050_final.pdf

[13] IEA (2024), *Electricity 2024*, IEA, Paris https://www.iea.org/reports/electricity-2024, Licence: CC BY 4.0

prices for electricity than the US due to the respective regions Natural Gas prices (5x higher on average in Europe the last year).

Oil production & Operations (OP&O)

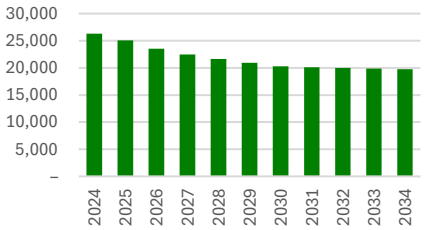
BP's OP&O revenue is especially dependent on oil prices. It is important to note that most of the revenue generated from this segment is from sales to other company segments, especially the C&P segment. Therefore, transfer pricing if used can distort the reality of the segment.

We performed a multiple linear regression model to estimate BP's OP&O revenue, with two independent variables: Average BP Oil Price, which considers a split for WTI and Brent crude prices based on where it is produced (US or Non-US), and BP hydrocarbon production attributable to this segment in mb/d. For the first, we used average quarterly data on Brent[14] and WTI[15] prices, while for the second we used BP's reported data. We experimented using the Henry Hub gas price, but this would most likely bring multicollinearity to our model. We tried with Global Oil Demand data, but the variable showed no statistical significance. The model presented an R-squared of 0.82, showing that most revenue can be explained by the used variables, which were significant at the 95% confidence interval. This resulted in the following model:

$$OP\&O\ quarterly\ revenue = -6005 + 4.55 * Production + 82.33 * Oil\ Price$$

To forecast revenue from Q4 2024 to Q4 2034 we used WTI and Brent crude futures prices[16] settled on December 3rd which are in backwardation since supply is currently low and there are expectations for OPEC countries to boost their supply in the future.

Figure 24: OP&O Revenue Forecast ($ million)

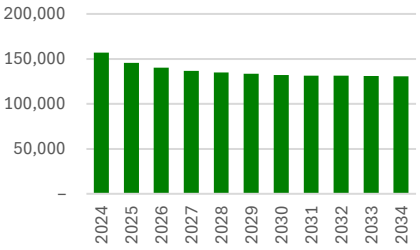


Source: Own Estimates

Customer and Products (C&P)

To estimate BP's C&P revenue we used again a linear regression model with Average BP Oil Price and total sales volume of refined products as the two independent variables. The first variable is the same used to forecast OP&O revenue, while the second represents the volume of refined throughputs sold which is an important value driver in the downstream industry. It mainly includes sales of retail fuels, aviation fuels, and supply of other refined products. BP retail sites, BP refining throughputs, and worldwide oil demand were all tested as possible variables for the model but failed to prove significant. For the 23 data points from

Figure 25: C&P Revenue Forecast ($ million)



Source: Own Estimates

[14] International Monetary Fund, Global price of Brent Crude [POILBREUSDQ], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/POILBREUSDQ
[15] International Monetary Fund, Global price of WTI Crude [POILWTIUSDQ], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/POILWTIUSDQ
[16] Source: Bloomberg

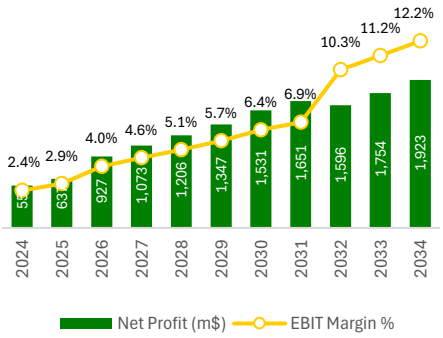
Q1 2019 to Q3 2024, we obtained a R-squared of 0.97, especially since average oil price explains the majority of the sector's revenue. The used variables were significant at the 95% confidence interval leading us to the following model:

$$C\&P\ quarterly\ revenue = -9496 + 413.71 * Oil\ Price + 5.29 * Sales\ Volume$$

The data used to forecast revenue from Q4 2024 to Q4 2034 was again the WTI and Brent crude futures, and the total sales volume of refined products which was assumed to go down at a constant CAGR of -1.5% as EV adoption keeps rising.

Operating Costs and Margins

Figure 26: G&LCE performance metrics

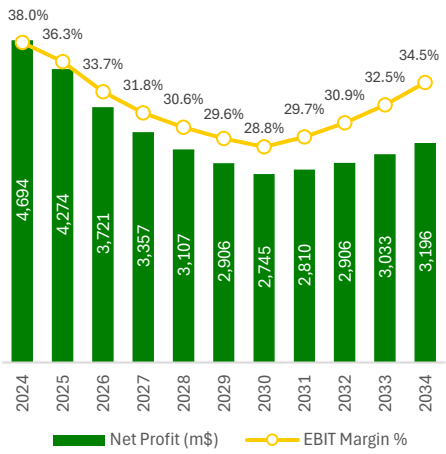


Source: Own Estimates

Gas & Low Carbon Energy (G&LCE)

Purchases represent most costs of this segment, which includes purchases of Natural Gas, and LNG for trading & marketing to fulfill their contractual obligations, and to physically settle derivative contracts. We estimated that BP would maintain its purchase level at around 72% of its gas revenue, the average from the observed period except for FY20, when the pandemic disrupted the normal level of purchases. For production and manufacturing expenses we assumed the company's 6 $/boe cost to be hard to maintain in the future, especially with lower volumes and labor inflation and therefore growing up to 7 $/boe by FY30 and stay at that level afterwards. Production taxes are expected to stay around 2.9% of gas production revenue for the forecasted period since we do not believe ad valorem and severance taxes to be increased for upstream gas as governments will try to accelerate the energy transition. We set exploration expenses to be stable, in line with our reserves' replacement expectations. We do not expect big changes in SG&A. The margins for G&LCE are expected to drop quite significantly compared to FY23 due to prices coming back to normality, and gas marketing & trading being a low-margin business in stable price environments. However, we expect margin improvements to be a common theme due to the increase of renewables in the revenue mix and its high margins due to low operating costs. EBIT margin is expected to grow from 2.4% in FY24 to 12.2% by FY34.

Figure 27: OP&O performance metrics

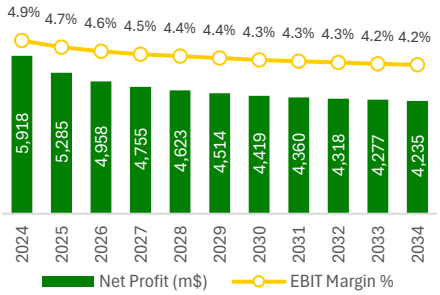


Source: Own Estimates

Oil Production & Operations (OP&O)

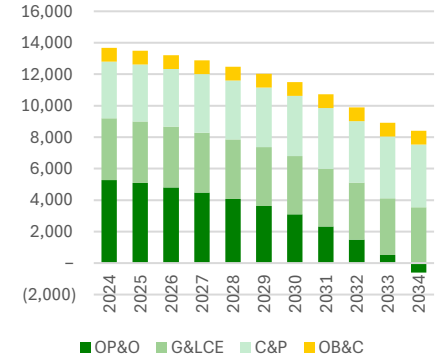
Most cost assumptions made for G&LCE also apply to the OP&O. To fulfill its contract obligations OP&O purchases much lower quantities relative to sales, only around 15.9%. It is also to note the higher average production tax of 4.4% driven primarily by operations in Asia. OP&O will maintain its status as the highest margin business unit, but EBIT margin is expected to decrease from 38.0% in FY24 to 28.8% in FY30 due to reduced economies of scale as production scales down and lower realizations.

Figure 28: C&P performance metrics



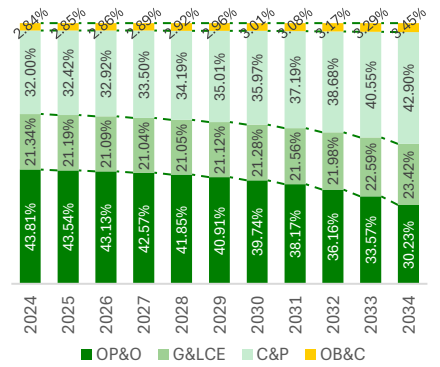
Source: Own Estimates

Figure 29: CAPEX Forecast per segment ($ million)



Source: Own Estimates

Figure 30: PP&E split forecasts



Source: Own Estimates

Customer & Products (C&P)

For C&P, the Cost of Goods Sold includes purchases of crude oil for refining operations, supplies for their convenience stores, and refining costs. We assumed the segment gross margin to stay at the average for the past five years (15.0%), assuming stable refining margins. Still, as we know, sudden supply changes by the OPEC cartel can highly affect market dynamics. The segment is expected to maintain EBIT margins between 4% and 5%.

CAPEX

BP has a framework for capital expenditures where it expects to spend $14 billion to $18 billion in all investment activities including inorganic growth, investments in joint ventures and associates, and investments in subsidiaries PP&E, intangible assets, and others. We will look closely into the Capital Investments made in PP&E for our segments which comprise inorganic growth and subsidiaries' investments. PP&E for upstream-only companies goes down and up as reserves are exploited and discovered. This happens because a big portion of PP&E is related to Oil and Gas Fields, valued at the fair economic value to be exploited. So, PP&E can be forecasted as a ratio to reserves. The only segment where this can be done is OP&O, due to the lack of data on the PP&E split for upstream in the G&LCE segment. The ratio has increased by 16% over the past five years, and we believe that it represents BP's CAPEX investment in new technology to reduce wells' emissions and improve safety, but also since some PP&E will not evolve directly with reserves such as equipment machinery. We expect this ratio to increase to around 15x by 2030 and 20x by 2034, especially with deepwater drilling activities as it involves complex and expensive equipment and as Oil and Gas fields will make for a lower percentage of total PP&E for the segment. Using this method, capital investments for OP&O will slowly decrease as the company starts liquidating obsolete material, resulting in negative CAPEX by 2034.

For G&LCE the company has increased capital expenditures directed to low-carbon energy, specially inorganically with the acquisition of Archaea Energy which focuses on the production of Renewable Natural Gas (RNG), and the announcement of the full acquisition of BP Lightsource. We therefore expect this behavior to be a common theme going forward. The company also has deployed some capital into the development of Blue and Green Hydrogen production plants, but these assets will take a long time to deliver returns. Investment in Upstream Gas, Gas pipelines, and LNG is expected to continue especially in Asia. We project that BP's PP&E will decline by approximately 1% annually, driven by the higher rate of depreciation on gas assets relative to future capital expenditures, which are

expected to range between $3.5 and $4.0 billion per year. It is important to highlight the shift from traditional Gas assets to Renewable alternatives will in our opinion result in a declining asset base during the transition period. We expect BP to expand its C&P PP&E by regularly acquiring existing players, following the move to buy TravelCenters of America, and investing intensively in their EV charging network and solutions for Corporations. Therefore, we expect PP&E to grow around 1% per year and capital expenditure to range between $3.5 and $4.0 billion yearly.

Corporate Income Taxes

BP, being an International Oil Company, navigates different tax environments in more than 70 countries. Group subsidiaries are also taxed differently in the same country due to their operational objective. Upstream activities are known for being heavily taxed in some countries, such as the Middle East due to high income tax rates established in Production Sharing Agreements (PSAs). Our approach to estimating income tax rates started by identifying the underlying operations of BP in each country. For those with upstream activities, we used applicable PSA rates as the tax rate, and if not disclosed we used the effective tax rate as a proxy. Finally, we computed the weighted average tax rate for each segment based on the profit before taxes for each country in 2023. This resulted in a marginal tax rate of 25.1% for G&LCE, 53.0% for OP&O, 22.6% for C&P, and 22.3% for OB&C.

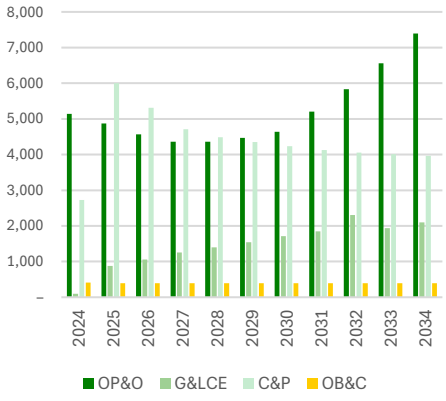
Unlevered Free Cash Flow (UFCF)

After following the previous framework and having estimated other income statement and balance sheet items we will be able to observe in G&LCE a steep decrease in cash flow in 2024 due to higher capital expenditure and lower realizations from gas marketing & trading but an increasing cash flow from there onwards as the company starts capitalizing on some of its renewable investments.

For OP&O cash flows are expected to go down in the short term due to lower EBIT margins as costs increase and Oil prices decrease but will ramp up again from 2028 onward due to lower capital investments.

C&P cash flows are expected to increase significantly in 2025 due to the NWC release as opposed to the net working capital investment in 2024. From there on it will slowly decrease every year due to the increasing capital investments expected for EV charging infrastructure.

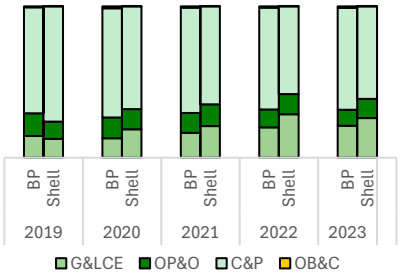
Figure 31: UFCF forecast per segment ($ million)



Source: Own Estimates

Cost of Capital

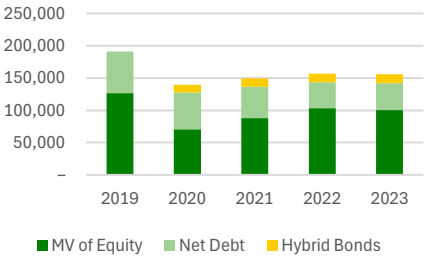
Figure 32: Segmental revenue split BP vs
Source: Own Estimates, annual reports



Although we valued BP as a sum of parts, we found it appropriate to discount all segments at the same discount rate. Although this does not allow for a precise valuation of each segment, it provides a clear picture of the overall company's value, considering all the inherent systematic risk. This decision was made having into account the lack of information on capital structures for each segment, and the fact that most of BP's comparables operate in the same segments, with small differences in the segment mix.

- Capital Structure

Figure 33: BP historical capital structure ($ million)



Source: Own Estimates, annual reports

BP has made use of debt, equity, and hybrid bonds to finance its operations. The company's debt is primarily finance debt from fixed-income markets in the US (66.1% of issued bonds), being the European market the second market of choice (27.8% of issued bonds). Debt also includes lease liabilities associated with drilling rigs, service stations, oil depots, and others. Finance debt is 65% fixed-rate debt which has definitively helped during high interest-rate environments observed after the pandemic. For equity, the company has 17.36 billion ordinary shares outstanding with an additional 390 million possible dilutive effect due to employee share-based payments as of FY23. Additionally, in FY20 BP issued hybrid bonds for the first time. The company issued around $13 billion in hybrid perpetual bonds and intends to maintain them as part of the company's long-term capital structure. We will treat this component as an equity instrument to be discounted at the cost of equity that is not part of the equity value attributable to shareholders. BP's Net Debt to Market Value of Equity has been unstable over the past five years being the highest in FY20 amid the pandemic and the lowest in FY22 after significant delevering, and operational recovery post-pandemic. We have assumed FY20 to be an abnormal year, and that the company will target a Net Debt to Market Value of Equity of 45.2%, the average of the past five years when excluding FY20. This is equivalent to a Net Debt to Enterprise Value of 31.1%. The interest coverage ratio (EBIT/ Interest Expense) is also an important metric when it comes to credit ratings and BP's has been healthy, always above 3x except for FY20.

- Cost of Debt

We computed the weighted average yield-to-maturity (YTM) of BP's corporate bonds with more than five years to maturity, to be able to capture different long-term yields from the American, European, Japanese, and Australian markets. We obtained a YTM of 4.43%, with a weighted average maturity of 13 years and 9 months. For the five-year probability of default (PD_{5y}), we computed it based on the survival function and the default intensity rate (hazard rate, $H(t)$)[17] approximation using the five-year market Credit Default Swaps (CDS) of 0.60% and the Recovery Rate (RR) of 40%, commonly used academically:

$$H(t) \approx \frac{CDS}{1-RR} \qquad PD_{5y} = 1 - e^{-H(t)}$$

We then got the annualized probability of default (PD) of 0.20% by applying the formula, $PD = 1 - (1 - PD_t)^{\frac{1}{t}}, t = 5$.

Finally, to obtain the group's cost of debt (rD) of 4.35% we used the following formula:

$$rD = YTM - PD * RR$$

Figure 34: Cost of Debt inputs

Cost of Debt	
Weighted avg. YTM	4.43%
5yr Market CDS	0.60%
5y PD	0.99%
Annualized PD	0.20%
Recovery rate	40%
Tax Rate	35.29%
Rd	**4.35%**

Source: Bloomberg, Own estimates

- Cost of Equity

BP cost of Equity (rE) was obtained using the Capital Asset Pricing Model (CAPM). For the risk-free rate (rf), we used the 10-year US treasury yield since most BP investors have access to the US capital market. For Market Risk Premium (MRP), we used NYU Stern's Equity Risk Premium[18] estimates for UK Equities which led us to an MRP of 5.48%.

To arrive at the equity beta (βe) of BP we regressed weekly returns of BP with the MSCI World Index for a five-year period. With a total of 260 observations, we arrived at a raw βe of 0.74 with a 95% confidence interval ranging from [0.53, 0.95]. With the presented confidence interval, we are confident about the value of BP's βe but to be fully confident we performed the previous regression model to our comparable group. Upon unlevering all βe with the appropriate tax rate and D/E we performed a weighted average of the BP's beta unlevered (βu) (60%) and comparables βu (40%) weighted based on how comparable we believe the companies are to BP. Then, we relevered the βu using our target D/E ratio of

Figure 35: Comparable companies adjustment to BP's βe

Company	Raw raw β	Unl. β	Weights
BP	0.740	0.582	60%
Shell	0.732	0.630	15%
TotalEnergies	0.821	0.739	10%
Eni	0.719	0.547	10%
Repsol	0.871	0.682	5%

Final Equity Beta	
βu	0.607
βe	**0.784**

Source: Bloomberg, Own estimates

[17] Hull, John C. and Predescu, Mirela and White, Alan, Bond Prices, Default Probabilities and Risk Premiums (March 9, 2005). Available at SSRN: https://ssrn.com/abstract=2173148 or http://dx.doi.org/10.2139/ssrn.2173148

[18] Damodaran, Aswath. "Country Risk Premiums." Stern School of Business, New York University. Accessed December 15, 2024. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html.

45.2%, arriving at a βe of 0.784 as the coefficient on how BP returns follow the MSCI World Index, used here as a proxy for the market BP's investors have available. Applying the CAPM formula $rE = rf + \beta e * \text{MRP}$ we arrive at a rE of 7.93%.

Figure 36: Cost of Equity inputs

Cost of Equity	
MRP	5.48%
Rf	3.63%
βe	0.784
Re	**7.93%**

Source: Bloomberg, Own estimates

- Weighted Average Cost of Capital (WACC)

To arrive at the final WACC we estimated a fair marginal tax rate for BP of 35.29%, as the weighted average of the applicable tax rate of the 10 countries with the highest profit before tax. The applicable tax rate is normally the statutory tax rate for most countries. However, in cases where higher tax rates arise due to Production Sharing Agreements (PSAs), we applied the PSA-specific tax rate when disclosed. If the PSA tax rate was not available, we used the company's effective tax rate for 2023 as a proxy. Finally, applying the formula:

$WACC = \frac{E}{E+D} * rE + \frac{D}{E+D} * rD * (1 - t)$ we arrived at a WACC of 6.34%.

Terminal Value

We experimented with different methods for terminal value forecasting and chose the one that seemed more appropriate in the end. The key estimating item for terminal value is the terminal growth (g) also known as the steady-state or long-term growth. For stable segments, a good way to forecast its terminal growth is by assuming the UFCF growth at the last estimated period as the product of Return on New Invested Capital (RONIC) and the Retention Rate (RR). RONIC represents how much the new investments in the segment's IC are returning while the RR represents how much of the current result is being reinvested into the segment. In BP's case, we only found this method to be applicable to the C&P segment due to its stable reinvestment rate (6%) from FY30 to FY34. For RONIC we expect it to stabilize around -15.4%, reflecting capital investments in the transition from a refining-based segment to including EV and biofuels (that are capital intensive), which are expected to have lower margins and eventually lead to a deteriorating ROIC. This led us to assume a -1.0% terminal growth for the C&P perpetuity.

The G&LCE segment, having a lot of changing dynamics up until FY34, does not provide a stable RR and RONIC. Therefore, we decided to go for an average of the expected long-term growth rates for renewable energy and natural gas. For renewables, we computed the CAGR from 2030 to 2050 for Renewable Capacity (4.86%) based on data from IEA's Net Zero by 2050 report[19] and adjusted it by -0.5% since this growth implies that Net Zero will be reached by 2050, something

[19] IEA (2021), Net Zero by 2050, IEA, Paris https://www.iea.org/reports/net-zero-by-2050, Licence: CC BY 4.0

we do not believe will happen. For Gas, we used McKinsey's forecast for total Worldwide Gas Demand[20], arriving at a CAGR from 2030 to 2050 of -0.25%. We considered an even split throughout and that these CAGRs represent the UFCF growth from FY34 onward, ending up in a 2.05% terminal growth rate for the segment to be used in perpetuity.

For OP&O, due to the running down of reserves is expected to end by 2038. Having this said, the growth rate used to forecast the annuity for the last 4 years is not material to the valuation. We assumed no growth for this segment's UFCF as we believe a big portion of the segment's assets cannot be liquidated and should not impact the final UFCFs. At the same time, Cash Flow from Operations is assumed to stay constant.

OB&C was assumed to maintain its operations and was valued, therefore, in perpetuity with no terminal growth.

Figure 37: DCF valuation results

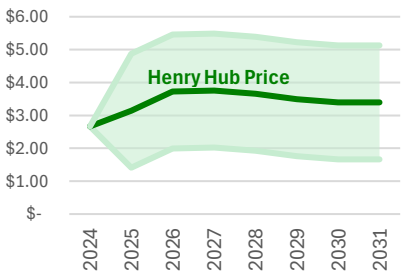
For 2025	million $
Enterprise Value	**159,126**
Net Debt	49,522
Non-controlling interest	15,863
Equity Value to shareholders	**93,741**
Diluted Shares outstanding	17,750
Share Price ($)	**$ 5.28**
Forward GBP/USD rate	0.7940384
Share Price (£)	**£ 4.19**

Source: Own estimates

Discounted Cash Flow (DCF)

To arrive at BP's Enterprise Value (EV) on the 31st of December 2025, we discounted all four segments' Cash Flows to December 2025 and added the value of non-core items from the Balance Sheet. This resulted in us valuing BP's EV at $159.1 billion in FY25. To derive the Equity Value attributable to shareholders of BP we simply deducted Net Debt, which was estimated to be 31.1% of EV, and the fair value (equal to book value in this case) of non-controlling interest which mainly represents convertible bonds explained in the *capital structure* section. We arrived at an Equity value to shareholders of $93.7 billion. Since BP's stock trades in the London Stock Exchange (LSE) and has the US Dollar as its reporting currency, to derive the share price of BP in FY25, we applied the one-year forward price for the currency pair GBP/USD of 0.794 US Dollars per British Pound to the Equity value to shareholders and divided it by the 17.75 billion diluted shares arriving at our DCF share price of £4.19.

Figure 38: Natural Gas scenario price per MMBtu range



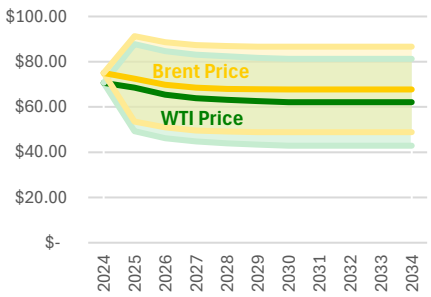
Source: Own estimates

Scenario Analysis

To support our DCF model, we conducted a scenario analysis to see how far BP's share price can go in a bullish and bearish scenario. The most important variables for this analysis are commodity prices for Brent, WTI, and Henry Hub prices since

[20] McKinsey & Company. *Global Gas Outlook to 2050*. McKinsey & Company, 2021. https://www.mckinsey.com/~/media/mckinsey/industries/oil%20and%20gas/our%20insights/global%20gas%20outlook%20to%202050/global%20gas%20outlook%202050_final.pdf

Figure 39: Crude Oil scenario price per barrel range



Source: Own estimates

Figure 40: High Price Scenario DCF results

For 2025		$ million
Enterprise Value		**228,379**
Net Debt		71,074
Non-controlling interest		15,863
Equity Value		**141,441**
Diluted Shares outstanding		17,750
Share Price ($)	**$**	**7.97**
Forward GPX/USD rate		0.7940
Share Price (£)	**£**	**6.33**

Source: Own estimates

Figure 41: Low Price Scenario DCF results

For 2025		$ million
Enterprise Value		**90,252**
Net Debt		28,087
Non-controlling interest		15,863
Equity Value		**46,301**
Diluted Shares outstanding		17,750
Share Price ($)	**$**	**2.61**
Forward GPX/USD rate		0.7940
Share Price (£)	**£**	**2.07**

Source: Own estimates

they dictate the profitability of the company. Electricity prices were also analyzed but they had little impact on the company's value. One of the main limitations of our scenario analysis is how gas prices are not directly affecting gas marketing & trading results, due to a lack of information and an appropriate methodology to do so. It is also important to note that we are using the same terminal growths and WACC for both scenarios, and this will be addressed in our sensitivity analysis.

- High Price Environment Scenario

For our best-case scenario, Brent, WTI, and Henry Hub prices were assumed to be one standard deviation higher than the base-case prices, reflecting the high demand to supply for these commodities. The standard deviation was based on the quarterly historical prices of these commodities from FY19 to FY23. For electricity prices we set a 50% increase, accounting for a geographic mix involving more European presence than we expect in our base case, but also the impact of higher gas prices on the final wholesale price of electricity (especially in the US). The higher demand for gas was also considered to boost gas marketing & trading activity and has therefore considered a one percentage point boost to its growth. Some operational improvements were also taken into account making upstream production costs 10% cheaper and having lower net working capital requirements (NWCR) due to a 10% lower inventory level, a collection period as the lowest in the past five years, and a payable period as the highest in the past five years, as the company improves its contractual terms with suppliers and customers. Under the proposed conditions and assuming unchanged gearing targets, we valued BP at £6.33 per share under a long-term high-price environment.

- Low Price Environment Scenario

The same reasoning as in the high-price environment scenario was used in our worst-case scenario. Brent, WTI, and Henry Hub prices were assumed to be one standard deviation lower than the base-case prices, reflecting oversupply relative to demand, similar to what succeeded during the COVID-19 pandemic. Electricity prices were set to be down 50% on the base case level. With a lower demand for gas, marketing & trading revenue is expected to slowly decline as we considered a one percentage point drop to its y-o-y growth relative to the base case. Upstream production costs were assumed to be 10% higher as efficiency worsened. Regarding NWCR inventories were expected to pile up and increase by 10%, while the payable period would be at the lowest level of the past five years, and the collection period at the highest. Assuming again the same gearing, in a long-term low-price environment, we valued BP at £2.07 per share.

Sensitivity Analysis

While using the DCF method, there is uncertainty over the discount rate to be used and the terminal growth rate of future cash flows. These two elements are crucial to determining the value of a company and are very sensible to small movements. For this reason, we conducted a sensitivity analysis to find BP's price range when tuning these variables.

For the WACC, we looked at the 95% confidence interval we got from our regression of the equity beta (βe) [0.526, 0.954] and got the WACCs for these limits [5.37%, 6.98%]. For terminal growth, since for most segments RONIC and RR could not be used, we decided simply to test for each terminal growth what would be the impact of 60 basis points (bps) higher or lower terminal growth for each step, making up for a range from -120 bps to up 120 bps for each segment's terminal growth. For our base case, our sensitivity resulted in a share price range from £3.51 up to £6.06, which seems reasonable to us.

The same approach was used to test the sensitivity of our high-price and low-price scenarios. For the high-price, we found the share price to be between £5.33 and £9.10, while in the low-price scenario, it was between £1.70 and £3.06. This shows how sensitive our model is to the cost of equity and the terminal growth rate for each segment.

We are aware that tax shields are not always recoverable if BP has losses in a subsidiary, and therefore want to evaluate what would be the impact on the WACC and subsequently the share price if we vary the fair marginal tax rate. Keeping everything else the same, in the extreme scenario where no tax shield exists the share price would be £3.89, but in a more reasonable example where the marginal tax rate for tax shields is 20%, the share price would be £4.06. That is a 3.2% difference relative to our expected DCF price with a marginal tax rate of 35.29%.

Figure 42: Sensitivity on WACC and terminal growth

WACC	Segment terminal growth adjustment				
	-1.20%	-0.60%	**0%**	0.60%	1.20%
5.37%	£4.40	£4.65	£4.98	£5.42	£6.06
5.85%	£4.09	£4.29	£4.55	£4.88	£5.34
6.34%	£3.82	£3.99	**£4.19**	£4.45	£4.79
6.66%	£3.66	£3.81	£3.99	£4.21	£4.50
6.98%	£3.51	£3.64	£3.80	£4.00	£4.24

Source: Own estimates

Figure 43: Marginal tax rate impact on WACC and share price

Tax rate	WACC	Share price
0.00%	6.82%	£ 3.89
10.00%	6.68%	£ 3.98
20.00%	6.55%	£ 4.06
30.00%	6.41%	£ 4.15
35.29%	6.34%	£ 4.19

Source: Own estimates

Relative Valuation

Our goal with this valuation is to understand how investors are pricing comparable companies to BP and why, rather than valuing BP at what the market thinks of its peers.

We selected a peer group to compare BP to its closest competitors. The oil & gas market has a lot of state-owned players, such as Aramco in Saudi Arabia, CNPC in China, NIOC in Iran, Equinor in Norway and the list goes on. Some of them have publicly available shares in stock exchange markets but are not comparable to public IOCs since government policy and interests will highly affect investment decisions and capital structure. The only exception made was Eni, the Italian IOC

Figure 44: Comparable group and market capitalization ($ billion)

Name	Mkt Cap
BP PLC	80.21
Shell PLC	195.23
TotalEnergies SE	135.25
Eni SpA	46.07
Repsol SA	14.09

Source: Bloomberg

Figure 45: Industry-specific ratios for the comparable group

year	2019	2020	2021	2022	2023
EV/Flowing Barrel					
BP	69.5	56.8	63.7	64.0	62.4
Shell	86.0	64.2	69.1	84.5	92.3
TotalEnergies	61.2	53.9	59.2	62.6	70.8
Eni	40.08	33.37	41.84	38.79	44.69
Repsol	54.34	46.58	52.11	52.51	45.61
Average	**62.2**	**51.0**	**57.2**	**60.5**	**63.2**
EV/Proved Reserves					
BP	16.6	14.2	16.6	20.1	21.4
Shell	28.9	24.2	24.3	25.7	26.8
TotalEnergies	14.5	12.6	13.8	17.0	16.7
Eni	10.3	8.4	10.6	9.4	11.5
Repsol	18.0	16.3	15.6	15.1	14.8
Average	**17.7**	**15.1**	**16.2**	**17.5**	**18.2**

Source: Own estimates

where the Italian Government has a 30% stake in, since it is comparable regarding the segments it operates, and it is managed as a publicly traded company where management decisions account for investor expectations, market forces, and returns to shareholders, similar to BP and all major public oil giants. To streamline our group, we focused on companies with similar size, and global operations.

The Oil and Gas industry has some important ratios to monitor that provide comparable information such as the EV/Flowing Barrel (EV/FB) and EV/Reserves (EV/R). The EV/FB ratio gives a broad view of the enterprise value against the company's upstream production rate. Shell is the clear winner when it comes to EV/FB which may sound surprising as its production cost for its upstream activity was 9.34 $/boe in FY23, around 61% higher when compared to BP's, and realizations were around 51.06 $/boe for BP and 40.65 $/boe for Shell. BP's upstream operating margin was 32.0% higher than Shell's in FY23. There are a couple of reasons for Shell's higher ratio despite lower production margins such as higher reserves, different finding and reserve replacement costs, the announced investments made by both companies outside Oil and Gas, and changes to their Oil and Gas operations. BP has been trying to establish itself in renewable energy for the past 3 years and with that pressure, has invested in renewable projects believed to yield lower returns on invested capital than standard upstream projects, and announced extreme production cuts of 40% by FY30. Shell has also invested in renewable energy but did not make such bold claims about its upstream operations. It is also important to note that Shell's upstream production volume is 20% up on BP's in FY23 which is not that much, but the company has more than double the retail sites of BP and operates a petrochemical segment while BP divested its chemicals business to INEOS in FY20. The last thing to consider is that BP still has some costs associated with the Deep Horizon oil spill of 2010, with approximately $8 billion payables relating to the catastrophe impacting the company's EV.

TotalEnergies' EV/FB surpassed BP's in FY23. One of the main reasons for this has been the company's consistent reserves replacement ratio above 100% except for FY2022, a feat very few in the industry have achieved in the last five years. Eni and Repsol consistently have had the lower EV/FB ratio in the peer group for different reasons. Eni showed the best operational margin out of the group due to higher realizations, but it has a larger share of upstream to its total business operations than BP, Shell, and TotalEnergies. Repsol, on the other hand, is considered to focus more on downstream operations than upstream, meaning EV/FB ratio is not the most insightful on the company, but it still being lower than

Figure 46: Sensitivity on EV to Flowing barrel valuation

EV/FB	Production (mboe/d) 2200	2250	2300	2350	2400
53.2x	£ 2.31	£ 2.43	£ 2.55	£ 2.67	£ 2.78
57.2x	£ 2.70	£ 2.83	£ 2.96	£ 3.09	£ 3.21
61.2x	£ 3.10	£ 3.23	£ 3.37	£ 3.51	£ 3.64
63.2x	£ 3.29	£ 3.43	£ 3.58	£ 3.72	£ 3.86
65.2x	£ 3.49	£ 3.64	£ 3.78	£ 3.93	£ 4.07
69.2x	£ 3.88	£ 4.04	£ 4.19	£ 4.35	£ 4.50
73.2x	£ 4.28	£ 4.44	£ 4.60	£ 4.77	£ 4.93

Source: Own estimates

Figure 47: Sensitivity on EV to Reserves valuation

EV/Reserves	Reserves (mmboe) 5184	5384	5584	5784	5984
18.2x	£ 1.30	£ 1.47	£ 1.63	£ 1.79	£ 1.96
22.2x	£ 2.23	£ 2.43	£ 2.63	£ 2.83	£ 3.03
24.2x	£ 2.69	£ 2.91	£ 3.13	£ 3.35	£ 3.56
26.2x	£ 3.16	£ 3.39	£ 3.63	£ 3.86	£ 4.10
30.2x	£ 4.09	£ 4.36	£ 4.63	£ 4.90	£ 5.17

Source: Own estimates

Figure 48: Comparable group P/E and EV/EBITDA ratios and BP's valuation on FY25 through this multiples

Name	P/E	EV/EBITDA
BP PLC	8.0x	3.5x
Shell PLC	8.5x	3.9x
TotalEnergies SE	7.2x	4.1x
Eni SpA	7.4x	3.6x
Repsol SA	4.8x	3.3x
Weighted Average	**7.8x**	**3.6x**
Share Price	**£3.35**	**£ 2.37**

Source: Bloomberg, Own estimates

the previously analyzed companies, shows that scale is very important in the Oil & Gas industry.

When looking into EV/Reserves for the peer group, they give similar results to the previously analyzed ratio which makes sense when all companies have similar years in reserves at their current production rate. It is important to note that BP is the one with the lowest years in reserves with only 8 years left, while TotalEnergies has the most with more than 11.5 years. It is clear to us that this ratio tends to be higher for the companies with lower reserves as the rest of their operations make for a greater share of EV. However, this would not be the case if companies operated only their upstream segments.

For reference, if we were to value BP based on the peer group's historical EV/FB and EV/R assuming the FY23 multiples will be the same in FY25, and apply our forecasted production rate and reserves we would arrive at a share price of £3.58 and £1.63, respectively. We are uncertain about the FY25 ratios, production level, and reserves and therefore conducted a small sensitivity analysis on these parameters. For EV/FB, we expect BP's share price to range from £2.31 in a pandemic-like scenario to £4.93 in a scenario with strong oil demand and high prices. For EV/R, we expect the peer group average to be on the low end of the spectrum, making for a wide range of possibilities. However, it still shows how concerning BP's reserves level is when even at a higher multiple of 24.2x (BP's FY23 multiple was 21.4x) at our estimated reserves for FY25 the valuation would result in a share price of £3.13.

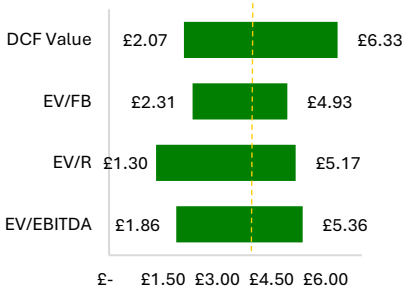
We now look at the traditional multiples such as EV to EBITDA and Price to Earnings (P/E) which are still relevant to the industry and closely monitored by investors. We applied WACC and cost of equity to forecast forward multiples, but due to energy price volatility, the market is too unstable to make reliable forecasts. The fluctuating prices disrupt the accuracy of forward multiples, limiting their predictive value. The peer group, in general, saw its EV/EBITDA decrease in FY22 and FY23 when compared to the pre-pandemic level especially due to the high-price environment of natural gas markets following the European geopolitical struggles. Almost all Oil giants boosted their EBITDA results in both these years due to a short-term shock to gas prices. With EBITDAs dropping as we arrive in FY24, we expect EV/EBITDA to grow again as EBITDA will normalize once again due to a normal gas price environment. If we assume the industry EV/EBITDA will stay at 3.6x, BP would be valued at £2.37 per share. For reference BP's EV/EBITDA in FY19 was 7.2x. Therefore, we do not believe this multiple represents the future value of the company as current EBITDAs have been distorted. We believe it is more probable that EV/EBITDA will be in the range of

Figure 49: Sensitivity on EV/EBITDA

EV/EBITDA \ EBITDA ($ millions)	29,755	31,321	32,970	34,618	36,349
3.6x	£ 1.86	£ 2.11	£ 2.38	£ 2.64	£ 2.92
3.9x	£ 2.26	£ 2.53	£ 2.82	£ 3.11	£ 3.41
4.2x	£ 2.66	£ 2.95	£ 3.26	£ 3.57	£ 3.90
4.5x	£ 3.06	£ 3.37	£ 3.70	£ 4.04	£ 4.38
4.8x	£ 3.46	£ 3.79	£ 4.15	£ 4.50	£ 4.87
5.1x	£ 3.86	£ 4.21	£ 4.59	£ 4.96	£ 5.36

Source: Own estimates

Figure 50: Football field chart



Source: Own estimates, Bloomberg

4.2x to 5.1x which at the FY25 EBITDA means a share price between £3.43 and £4.76. The ratio is not expected to improve to FY19 levels as the company has scaled down its upstream operations considerably since, with FY23 production down 12% compared with FY19 and reserves down almost 39% for the same period.

The current peer group P/E ratio is 7.8x and it being a metric that does not account for companies' capital structure we will not focus too much on it, especially since BP has a less common capital structure involving convertible bonds. We arrived at a share price of £4.03 using the P/E ratio.

Final Recommendation

Following our DCF valuation, the method we believe to be more accurate, we expect BP's share price to be £4.19 as of December 31st, 2025, appreciating 5.91% over the current share price of £3.96 on December 13th, 2024. On top of this, BP is well-known for its dividend policy and its average dividend yield for the past five years was 5.25%. With this, we assume BP will distribute annual dividends amounting to £0.21 during FY25. Therefore, we issue a **BUY** recommendation on BP's stock with a total expected shareholder return of 11.15%.

Appendix

Income Statement

For the year ended 31 December ($ million)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gas & low carbon energy (G&LCE)													
Sales and operating revenues	56,255	50,297	30,179	29,556	30,936	31,360	31,604	31,763	32,029	32,034	20,696	20,903	21,125
Revenue from Gas production	*19,695*	*13,643*	*11,744*	*10,708*	*11,850*	*12,007*	*11,948*	*11,761*	*11,705*	*11,530*			
Revenue from Renewables	*427*	*277*	*280*	*585*	*714*	*871*	*1,062*	*1,296*	*1,581*	*1,723*	*1,879*	*2,048*	*2,232*
Total gas marketing & trading revenue			*18,154*	*18,263*	*18,373*	*18,483*	*18,594*	*18,705*	*18,743*	*18,780*	*18,818*	*18,855*	*18,893*
COGS	37,879	31,040	23,728	23,053	24,041	24,299	24,397	24,403	24,455	24,337	13,476	13,503	13,530
Purchases from third parties and other segments	*35,128*	*28,733*	*21,411*	*20,747*	*21,643*	*21,834*	*21,872*	*21,818*	*21,804*	*21,706*	*13,476*	*13,503*	*13,530*
Production and manufacturing expenses	*2,120*	*1,960*	*1,973*	*1,992*	*2,051*	*2,112*	*2,175*	*2,240*	*2,307*	*2,294*	–	–	–
Production and similar taxes	*631*	*347*	*344*	*314*	*348*	*352*	*350*	*345*	*343*	*338*	–	–	–
Exploration expense	87	467	592	592	592	592	592	592	592	592	592	592	592
Depreciation, depletion and amortization	5,008	5,680	4,158	4,116	4,075	4,034	3,994	3,954	3,915	3,875	3,837	3,798	3,760
Distribution and administration expenses	1,072	1,337	966	946	990	1,004	1,012	1,017	1,025	1,025	662	669	676
EBIT	**12,208**	**11,772**	**735**	**850**	**1,238**	**1,432**	**1,610**	**1,798**	**2,043**	**2,204**	**2,130**	**2,342**	**2,567**
Taxes	3,062	2,953	184	213	311	359	404	451	513	553	534	587	644
Other Comprehensive Income	(612)	244	–	–	–	–	–	–	–	–	–	–	–
Total G&LCE result	**8,534**	**9,064**	**551**	**637**	**927**	**1,073**	**1,206**	**1,347**	**1,531**	**1,651**	**1,596**	**1,754**	**1,923**
Oil production & operations (OP&O)													
All Sales & operating revenue	33,193	24,904	26,312	25,065	23,521	22,444	21,636	20,916	20,254	20,121	19,988	19,857	19,726
COGS	10,132	8,902	8,579	8,267	7,957	7,742	7,580	7,434	7,300	7,254	7,208	7,163	7,118
Purchases from third parties and other segments	*5,565*	*4,552*	*4,179*	*3,981*	*3,736*	*3,565*	*3,437*	*3,322*	*3,217*	*3,196*	*3,175*	*3,154*	*3,133*
Production and manufacturing expenses	*2,874*	*2,918*	*3,235*	*3,176*	*3,180*	*3,183*	*3,185*	*3,186*	*3,186*	*3,167*	*3,149*	*3,130*	*3,112*
Production and similar taxes	*1,694*	*1,432*	*1,165*	*1,109*	*1,041*	*993*	*958*	*926*	*897*	*891*	*885*	*879*	*873*
Exploration expense	498	530	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058	2,058
Depreciation, depletion and amortization	5,564	5,692	5,558	5,523	5,472	5,392	5,282	5,138	4,956	4,731	4,440	4,083	3,653
Distribution and administration expenses	127	158	127	121	113	108	104	101	97	97	96	95	95
EBIT	**16,872**	**9,623**	**9,990**	**9,096**	**7,920**	**7,144**	**6,612**	**6,185**	**5,843**	**5,981**	**6,185**	**6,456**	**6,801**
Taxes	8,945	5,101	5,296	4,822	4,199	3,787	3,505	3,279	3,098	3,171	3,279	3,423	3,606
Other Comprehensive Income	(361)	121	–	–	–	–	–	–	–	–	–	–	–
Total OP&O result	**7,566**	**4,642**	**4,694**	**4,274**	**3,721**	**3,357**	**3,107**	**2,906**	**2,745**	**2,810**	**2,906**	**3,033**	**3,196**
Customers & products (C&P)													
Sales and operating revenues	188,623	160,215	157,004	145,715	140,102	136,816	134,857	133,319	132,049	131,441	131,176	130,912	130,649
COGS	162,860	134,074	133,424	123,831	119,061	116,269	114,604	113,296	112,217	111,701	111,475	111,251	111,028
Depreciation, depletion and amortization	2,870	3,548	3,272	3,305	3,338	3,371	3,405	3,439	3,473	3,508	3,543	3,579	3,614
Distribution and administration expenses	11,648	14,527	12,660	11,750	11,297	11,032	10,874	10,750	10,648	10,599	10,577	10,556	10,535
EBIT	**11,244**	**8,066**	**7,648**	**6,830**	**6,406**	**6,144**	**5,974**	**5,833**	**5,711**	**5,634**	**5,580**	**5,526**	**5,472**
Taxes	2,543	1,824	1,729	1,544	1,449	1,389	1,351	1,319	1,291	1,274	1,262	1,250	1,237
Other Comprehensive Income	(2,051)	779	–	–	–	–	–	–	–	–	–	–	–
Total C&P result	**6,651**	**7,021**	**5,918**	**5,285**	**4,958**	**4,755**	**4,623**	**4,514**	**4,419**	**4,360**	**4,318**	**4,277**	**4,235**
Other businesses & corporate (OB&C)													
Sales and operating revenues	2,299	2,657	1,953	1,953	1,953	1,953	1,953	1,953	1,953	1,953	1,953	1,953	1,953
Purchases from third parties and other segments	()	()											
Depreciation, depletion and amortization	876	1,008	872	872	872	872	872	872	872	872	872	872	872
Distribution and administration expenses	602	750	579	579	579	579	579	579	579	579	579	579	579
EBIT	**822**	**899**	**502**	**502**	**502**	**502**	**502**	**502**	**502**	**502**	**502**	**502**	**502**
Taxes	183	201	112	112	112	112	112	112	112	112	112	112	112
Total OB&C result	**638**	**698**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**
Total Core Result	**23,390**	**21,425**	**11,553**	**10,586**	**9,996**	**9,574**	**9,326**	**9,157**	**9,086**	**9,211**	**9,210**	**9,454**	**9,744**
Non-Core operations													
Rosneft earnings before interest, tax and impairments	528	–	–	–	–	–	–	–	–	–	–	–	–
Net impairment and losses on sale of businesses and fixed assets	24,561	–	–	–	–	–	–	–	–	–	–	–	–
Rosneft Taxes	(1,061)	–	–	–	–	–	–	–	–	–	–	–	–
Other Income	673	386	437	437	437	437	437	437	437	437	437	437	437
Earnings from JV and associates - after interest and tax	2,002	898	1,396	1,396	1,396	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534
Gains on sale of businesses and fixed assets	3,866	369	–	–	–	–	–	–	–	–	–	–	–
costs relating to the Gulf of Mexico oil spill	84	57											
Net impairment and losses on sale of businesses and fixed assets	5,961	5,857	–	–	–	–	–	–	–	–	–	–	–
Net finance (income) expense relating to pensions and other post-retirement benefits	(69)	(241)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)
Taxes	434	(1,372)	751	751	751	806	806	806	806	806	806	806	806
Tax adjustments	4,930	(237)	–	–	–	–	–	–	–	–	–	–	–
Reformulation tax adjustments	(528)	284	–	–	–	–	–	–	–	–	–	–	–
Total non-core profit (loss) for the year	**(27,243)**	**(2,694)**	**1,126**	**1,126**	**1,126**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**
Other Comprehensive Income	11,231	(1,655)	–	–	–	–	–	–	–	–	–	–	–
Total non-core result	**(16,012)**	**(4,349)**	**1,126**	**1,126**	**1,126**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**	**1,208**
Financing													
Interest income	430	1,249	513	513	513	513	513	513	513	513	513	513	513
Financial Income	**430**	**1,249**	**513**	**513**	**513**	**513**	**513**	**513**	**513**	**513**	**513**	**513**	**513**
Finance costs	2,703	3,840	3,266	3,231	3,208	3,195	3,181	3,163	3,135	3,101	3,042	2,972	2,877
Financial result before taxes	**(2,273)**	**(2,591)**	**(2,753)**	**(2,718)**	**(2,695)**	**(2,682)**	**(2,668)**	**(2,650)**	**(2,622)**	**(2,588)**	**(2,529)**	**(2,459)**	**(2,364)**
Tax shield	(1,746)	(884)	(1,101)	(1,087)	(1,078)	(1,073)	(1,067)	(1,060)	(1,049)	(1,035)	(1,012)	(984)	(946)
Total financial result	**(527)**	**(1,707)**	**(1,652)**	**(1,631)**	**(1,617)**	**(1,609)**	**(1,601)**	**(1,590)**	**(1,573)**	**(1,553)**	**(1,517)**	**(1,475)**	**(1,419)**
Non-controlling interests	1,069	667	485	448	420	403	391	382	377	382	384	394	406
Total result attributable to BP shareholders	**5,782**	**14,702**	**10,542**	**9,633**	**9,086**	**8,770**	**8,543**	**8,394**	**8,344**	**8,485**	**8,518**	**8,794**	**9,128**

Balance Sheet

For the year ended 31 December ($ million)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gas & low carbon energy													
NWC													
Operating Cash	2,813	2,515	1,509	1,478	1,547	1,568	1,580	1,588	1,601	1,602	1,035	1,045	1,056
Inventories	3,572	2,427	2,196	2,134	2,225	2,249	2,258	2,259	2,264	2,253	1,247	1,250	1,252
Trade and other receivables	6,820	6,450	4,086	4,015	4,172	4,220	4,248	4,265	4,296	4,296	3,011	3,034	3,059
Trade and other payables	10,790	10,027	7,513	7,347	7,579	7,636	7,655	7,652	7,660	7,628	5,041	5,044	5,046
Prepayments (current)	408	492	311	302	315	319	320	320	321	319	177	177	177
Accrual liabilities (current)	6,398	6,527	5,656	5,656	5,656	5,656	5,656	5,656	5,656	5,656	5,656	5,656	5,656
Current tax receivable	129	245	14	16	24	27	31	34	39	42	41	45	49
Current tax payable	845	800	52	60	87	101	113	127	144	155	150	165	181
Total NWC	**(4,291)**	**(5,226)**	**(5,104)**	**(5,117)**	**(5,039)**	**(5,009)**	**(4,987)**	**(4,967)**	**(4,939)**	**(4,927)**	**(5,337)**	**(5,313)**	**(5,288)**
Non Current													
PP&E	26,808	22,535	22,310	22,087	21,866	21,647	21,431	21,216	21,004	20,794	20,586	20,380	20,176
Goodwill	2,232	2,095	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166
Intangible Assets	5,451	4,892	4,997	4,997	4,997	4,997	4,997	4,997	4,997	4,997	4,997	4,997	4,997
Trade and other receivables	231	365	432	429	435	437	438	439	440	440	391	392	393
Other Payables	388	438	348	347	345	344	343	341	340	339	335	334	333
Prepayments (non-current)	112	122	105	102	107	108	108	108	109	108	60	60	60
Accrual liabilities (non-current)	1,233	1,310	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072
Total Non Current	**33,213**	**28,262**	**28,591**	**28,364**	**28,154**	**27,940**	**27,726**	**27,514**	**27,305**	**27,095**	**26,794**	**26,590**	**26,389**
Total G&LCE IC	**28,922**	**23,036**	**23,487**	**23,246**	**23,115**	**22,931**	**22,739**	**22,547**	**22,365**	**22,169**	**21,457**	**21,277**	**21,100**
Oil Production & Operations													
NWC													
Operating Cash	1,660	1,245	1,316	1,253	1,176	1,122	1,082	1,046	1,013	1,006	999	993	986
Inventories	4,427	3,903	3,938	3,795	3,653	3,554	3,479	3,413	3,351	3,330	3,309	3,288	3,268
Trade and other receivables	4,613	3,922	4,017	3,850	3,643	3,500	3,391	3,295	3,207	3,189	3,171	3,154	3,136
Trade and other payables	4,396	4,598	6,336	6,144	5,940	5,788	5,661	5,536	5,410	5,326	5,229	5,117	4,989
Prepayments (current)	65	78	58	56	54	52	51	50	49	49	49	48	48
Provisions (current)	900	590	649	714	785	801	817	833	850	867	884	902	920
Current tax receivable	377	424	403	367	319	288	267	249	236	241	249	260	274
Current tax payable	2,468	1,383	1,487	1,354	1,179	1,063	984	920	870	890	920	961	1,012
Total NWC	**3,379**	**3,001**	**1,260**	**1,110**	**941**	**864**	**809**	**764**	**726**	**732**	**744**	**763**	**791**
Non Current													
PP&E	46,850	46,091	45,800	45,374	44,717	43,804	42,607	41,094	39,233	36,820	33,862	30,295	26,045
Goodwill	4,925	4,925	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336
Intangible Assets	2,986	3,197	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278
Trade and other receivables	352	432	632	615	592	577	565	555	546	544	542	540	538
Other Payables	299	274	375	372	366	359	351	341	328	313	294	271	244
Prepayments (non-current)	18	19	19	18	17	17	17	16	16	16	16	16	16
Provisions (non-current)	81	46	50	55	61	62	63	65	66	67	69	70	71
Total Non Current	**54,750**	**54,345**	**55,640**	**55,194**	**54,514**	**53,591**	**52,389**	**50,874**	**49,014**	**46,613**	**43,672**	**40,124**	**35,898**
Total OP&O IC	**58,129**	**57,346**	**56,900**	**56,303**	**55,455**	**54,455**	**53,198**	**51,638**	**49,740**	**47,346**	**44,416**	**40,887**	**36,689**
Customer & products													
NWC													
Operating Cash	9,431	8,011	7,850	7,286	7,005	6,841	6,743	6,666	6,602	6,572	6,559	6,546	6,532
Inventories	20,082	16,490	17,494	16,236	15,611	15,245	15,027	14,855	14,714	14,646	14,616	14,587	14,558
Trade and other receivables	21,923	19,908	19,520	18,311	17,709	17,357	17,147	16,982	16,846	16,781	16,753	16,724	16,696
Trade and other payables	44,833	42,258	39,243	36,891	35,725	35,046	34,645	34,332	34,075	33,956	33,910	33,863	33,817
Prepayments (current)	1,619	1,950	1,604	1,489	1,431	1,398	1,378	1,362	1,349	1,343	1,340	1,337	1,335
Provisions (current)	3,743	2,217	2,439	2,683	2,951	3,010	3,070	3,132	3,194	3,258	3,323	3,390	3,458
Current tax receivable	107	151	132	117	110	106	103	100	98	97	96	95	94
Current tax payable	702	494	485	434	407	390	379	370	363	358	354	351	347
Total NWC	**3,884**	**1,540**	**4,433**	**3,432**	**2,784**	**2,500**	**2,302**	**2,132**	**1,978**	**1,867**	**1,777**	**1,686**	**1,593**
Non Current													
PP&E	29,441	33,123	33,454	33,789	34,127	34,468	34,813	35,161	35,512	35,867	36,226	36,588	36,954
Goodwill	4,740	5,431	4,686	4,686	4,686	4,686	4,686	4,686	4,686	4,686	4,686	4,686	4,686
Intangible Assets	1,742	1,870	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511
Trade and other receivables	430	943	1,360	1,360	1,360	1,360	1,360	1,360	1,360	1,360	1,360	1,360	1,360
Other Payables	1,336	1,752	1,145	1,142	1,142	1,142	1,144	1,145	1,147	1,149	1,151	1,153	1,156
Prepayments (non-current)	446	482	547	507	488	476	470	464	460	458	457	456	455
Provisions (non-current)	338	172	189	208	229	234	238	243	248	253	258	263	269
Total Non Current	**35,125**	**39,925**	**40,224**	**40,503**	**40,801**	**41,126**	**41,457**	**41,794**	**42,135**	**42,481**	**42,831**	**43,185**	**43,543**
Total C&P IC	**39,009**	**41,466**	**44,657**	**43,935**	**43,585**	**43,625**	**43,760**	**43,926**	**44,113**	**44,347**	**44,608**	**44,871**	**45,136**
Other Businesses & Corporate													
NWC													
Operating Cash	115	133	98	98	98	98	98	98	98	98	98	98	98
Other payables	93	108	121	121	121	121	121	121	121	121	121	121	121
Prepayments (current)	()	()	–	–	–	–	–	–	–	–	–	–	–
Current tax receivable	8	17	6	6	6	6	6	6	6	6	6	6	6
Current tax payable	51	54	20	20	20	20	20	20	20	20	20	20	20
Total NWC	**(20)**	**(13)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**	**(38)**
Non Current													
PP&E	2,945	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970
Goodwill	63	21	42	42	42	42	42	42	42	42	42	42	42
Intangible Assets	21	31	22	22	22	22	22	22	22	22	22	22	22
Other Payables	13	10	21	21	21	21	21	21	21	21	21	21	21
Prepayments (non-current)	()	()	–	–	–	–	–	–	–	–	–	–	–
Total Non Current	**3,016**	**3,012**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**	**3,013**
Total OB&C IC	**2,995**	**2,999**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**	**2,976**
Total core IC	**129,056**	**124,847**	**128,019**	**126,460**	**125,131**	**123,987**	**122,673**	**121,086**	**119,194**	**116,837**	**113,456**	**110,010**	**105,901**

NON CORE Business													
Investments in JVs	12,400	12,435	13,380	13,483	13,588	13,696	13,806	13,917	13,917	13,917	13,917	13,917	13,917
Investments in associates	8,201	7,814	7,447	7,447	7,447	7,447	7,447	7,447	7,447	7,447	7,447	7,447	7,447
Amounts receivable from joint ventures and associates (current)	654	843	504	506	509	512	514	517	517	517	517	517	517
Amounts receivable from joint ventures and associates (non-current)	79	26	35	35	35	36	36	36	36	36	36	36	36
Other investments (current)	578	843	441	441	441	441	441	441	441	441	441	441	441
Other Investments (non-current)	2,670	2,189	2,285	2,285	2,285	2,285	2,285	2,285	2,285	2,285	2,285	2,285	2,285
Loans (current)	315	240	341	341	341	341	341	341	341	341	341	341	341
Loans (non-current)	1,271	1,942	1,121	1,121	1,121	1,121	1,121	1,121	1,121	1,121	1,121	1,121	1,121
Defined benefit pension plan surpluses	9,269	7,948	8,829	8,829	8,829	8,829	8,829	8,829	8,829	8,829	8,829	8,829	8,829
Defined benefit pension plan and other post-retirement benefit plan deficits	5,244	5,456	7,273	7,273	7,273	7,273	7,273	7,273	7,273	7,273	7,273	7,273	7,273
Assets classified as held for sale	1,242	151	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093
Liabilities directly associated with assets classified as held for sale	321	62	197	197	197	197	197	197	197	197	197	197	197
Other payables (current)	3,873	4,164	3,653	3,565	3,485	3,411	3,344	3,282	3,226	3,174	3,127	3,084	3,044
Other payables (non-current)	8,350	7,602	6,953	6,360	5,817	5,320	4,866	4,451	4,071	3,723	3,405	3,115	2,849
Provisions (current)	1,689	1,611	2,141	2,174	2,207	2,242	2,279	2,316	2,356	2,356	2,356	2,356	2,356
Provisions (non-current)	14,573	14,503	15,053	15,358	15,670	15,991	16,321	16,659	17,007	17,007	17,007	17,007	17,007
Deferred tax assets	3,908	4,268	5,378	5,378	5,378	5,378	5,378	5,378	5,378	5,378	5,378	5,378	5,378
Deferred tax liabilities	10,526	9,617	9,101	9,101	9,101	9,101	9,101	9,101	9,101	9,101	9,101	9,101	9,101
Derivative financial assets	24,395	22,563	22,563	22,563	22,563	22,563	22,563	22,563	22,563	22,563	22,563	22,563	22,563
Derivative financial liabilities	26,155	15,652	15,652	15,652	15,652	15,652	15,652	15,652	15,652	15,652	15,652	15,652	15,652
Total Non Core	**(5,749)**	**2,595**	**3,393**	**3,844**	**4,229**	**4,553**	**4,821**	**5,037**	**5,087**	**5,486**	**5,851**	**6,185**	**6,490**
Total IC	**123,307**	**127,442**	**131,413**	**130,304**	**129,360**	**128,540**	**127,494**	**126,123**	**124,281**	**122,323**	**119,307**	**116,195**	**112,391**

Net financial assets													
Non Operating Cash	15,177	21,126											
Lease liabilities (current and non-current)	8,549	11,121											
Finance debt (current and non-current)	46,944	51,954											
Total net financial assets	**(40,317)**	**(41,949)**	**(50,056)**	**(49,522)**	**(49,180)**	**(48,979)**	**(48,766)**	**(48,485)**	**(48,058)**	**(47,528)**	**(46,627)**	**(45,556)**	**(44,105)**
bp shareholders' equity	67,553	70,283	65,807	64,919	64,023	63,122	62,016	60,659	58,979	57,284	54,901	52,584	49,947
Non-controlling interests	15,437	15,210	15,550	15,863	16,157	16,439	16,713	16,980	17,244	17,511	17,779	18,055	18,339
Total Equity	**82,990**	**85,493**	**81,357**	**80,782**	**80,180**	**79,561**	**78,728**	**77,638**	**76,223**	**74,795**	**72,680**	**70,639**	**68,286**

Cash Flow Statement

For the year ended 31 December ($ million)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
G&LCE													
Core EBIT	12,208	11,772	735	850	1,238	1,432	1,610	1,798	2,043	2,204	2,130	2,342	2,567
Taxes	3,062	2,953	184	213	311	359	404	451	513	553	534	587	644
Recurring NOPLAT	**9,146**	**8,819**	**551**	**637**	**927**	**1,073**	**1,206**	**1,347**	**1,531**	**1,651**	**1,596**	**1,754**	**1,923**
D&A	5,008	5,680	4,158	4,116	4,075	4,034	3,994	3,954	3,915	3,875	3,837	3,798	3,760
Other comprehensive income	(612)	244	–	–	–	–	–	–	–	–	–	–	–
Opearting cash flow	**13,542**	**14,744**	**4,708**	**4,753**	**5,002**	**5,107**	**5,200**	**5,301**	**5,445**	**5,527**	**5,432**	**5,552**	**5,684**
CAPEX	3,914	1,407	3,932	3,893	3,854	3,816	3,778	3,740	3,702	3,665	3,629	3,592	3,556
Investment in Intangibles	3,583	(558)	105	–	–	–	–	–	–	–	–	–	–
Investment in Goodwill	85	(137)	71	–	–	–	–	–	–	–	–	–	–
Δ in NWC	483	(935)	122	(13)	78	30	22	20	28	12	(410)	23	25
Δ in other operating net assets	(582)	17	378	(4)	11	4	3	2	3	1	(94)	2	2
Core Unlevered FCF	**6,060**	**14,950**	**99**	**877**	**1,058**	**1,257**	**1,397**	**1,539**	**1,712**	**1,848**	**2,307**	**1,934**	**2,100**
OP&O													
Core EBIT	16,872	9,623	9,990	9,096	7,920	7,144	6,612	6,185	5,843	5,981	6,185	6,456	6,801
Taxes	8,945	5,101	5,296	4,822	4,199	3,787	3,505	3,279	3,098	3,171	3,279	3,423	3,606
Recurring NOPLAT	**7,927**	**4,521**	**4,694**	**4,274**	**3,721**	**3,357**	**3,107**	**2,906**	**2,745**	**2,810**	**2,906**	**3,033**	**3,196**
D&A	5,564	5,692	5,558	5,523	5,472	5,392	5,282	5,138	4,956	4,731	4,440	4,083	3,653
Other comprehensive income	(361)	121	–	–	–	–	–	–	–	–	–	–	–
Opearting cash flow	**13,130**	**10,334**	**10,252**	**9,797**	**9,193**	**8,749**	**8,389**	**8,044**	**7,701**	**7,541**	**7,346**	**7,117**	**6,849**
CAPEX	1,163	4,933	5,268	5,096	4,815	4,480	4,085	3,625	3,094	2,318	1,483	516	(596)
Investment in Intangibles	(74)	211	1,081	–	–	–	–	–	–	–	–	–	–
Investment in Goodwill	(539)	–	411	–	–	–	–	–	–	–	–	–	–
Δ in NWC	(640)	(378)	(1,741)	(150)	(168)	(77)	(55)	(46)	(38)	6	12	19	28
Δ in other operating assets	(212)	142	94	(20)	(23)	(10)	(5)	(2)	1	12	16	20	24
Core Unlevered FCF	**13,433**	**5,425**	**5,140**	**4,870**	**4,569**	**4,357**	**4,364**	**4,466**	**4,643**	**5,205**	**5,836**	**6,562**	**7,394**
C&P													
Core EBIT	11,244	8,066	7,648	6,830	6,406	6,144	5,974	5,833	5,711	5,634	5,580	5,526	5,472
Taxes	2,543	1,824	1,729	1,544	1,449	1,389	1,351	1,319	1,291	1,274	1,262	1,250	1,237
Recurring NOPLAT	**8,701**	**6,242**	**5,918**	**5,285**	**4,958**	**4,755**	**4,623**	**4,514**	**4,419**	**4,360**	**4,318**	**4,277**	**4,235**
D&A	2,870	3,548	3,272	3,305	3,338	3,371	3,405	3,439	3,473	3,508	3,543	3,579	3,614
Other comprehensive income	(2,051)	779	–	–	–	–	–	–	–	–	–	–	–
Opearting cash flow	**9,521**	**10,569**	**9,190**	**8,590**	**8,295**	**8,126**	**8,028**	**7,953**	**7,893**	**7,868**	**7,861**	**7,855**	**7,849**
CAPEX	1,521	7,230	3,603	3,639	3,676	3,712	3,750	3,787	3,825	3,863	3,902	3,941	3,980
Investment in Intangibles	239	128	(359)	–	–	–	–	–	–	–	–	–	–
Investment in Goodwill	43	691	(745)	–	–	–	–	–	–	–	–	–	–
Δ in NWC	133	(2,344)	2,892	(1,001)	(648)	(284)	(197)	(171)	(154)	(111)	(90)	(91)	(92)
Δ in other operating assets	(1,743)	299	1,072	(56)	(40)	(17)	(13)	(12)	(11)	(9)	(8)	(8)	(8)
Core Unlevered FCF	**9,328**	**4,564**	**2,727**	**6,007**	**5,308**	**4,715**	**4,489**	**4,348**	**4,233**	**4,125**	**4,058**	**4,014**	**3,970**
OB&C													
Core EBIT	822	899	502	502	502	502	502	502	502	502	502	502	502
Taxes	183	201	112	112	112	112	112	112	112	112	112	112	112
Recurring NOPLAT	**638**	**698**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**
D&A	876	1,008	872	872	872	872	872	872	872	872	872	872	872
Opearting cash flow	**1,514**	**1,706**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**	**1,262**
CAPEX	862	1,033	872	872	872	872	872	872	872	872	872	872	872
Investment in Intangibles	1	10	(9)	–	–	–	–	–	–	–	–	–	–
Investment in Goodwill	(2)	(42)	21	–	–	–	–	–	–	–	–	–	–
Δ in NWC	(14)	8	(25)	–	–	–	–	–	–	–	–	–	–
Δ in other operating assets	7	4	(11)	–	–	–	–	–	–	–	–	–	–
Core Unlevered FCF	**660**	**694**	**414**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**	**390**
Total Core Unlevered FCF	**29,480**	**25,634**	**8,380**	**12,145**	**11,325**	**10,719**	**10,640**	**10,743**	**10,978**	**11,568**	**12,591**	**12,901**	**13,853**
NON-CORE Business													
Non-Core EBIT	(23,537)	(4,261)	1,833	1,833	1,833	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971
Net finance (income) expense relating to pensions and other benefits	(69)	(241)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)	(43)
Taxes	(627)	(1,372)	751	751	751	806	806	806	806	806	806	806	806
Tax Adjustments	4,930	(237)	–	–	–	–	–	–	–	–	–	–	–
Reformulation tax adjustments	(528)	284	–	–	–	–	–	–	–	–	–	–	–
Other comprehensive income	11,231	(1,655)	–	–	–	–	–	–	–	–	–	–	–
Changes in Non-Core IC	(9,507)	8,344	798	450	385	324	268	216	50	399	365	334	305
Non-Core Unlevered FCF	**(6,505)**	**(12,693)**	**328**	**675**	**741**	**884**	**940**	**993**	**1,159**	**809**	**843**	**875**	**903**
Total Unlevered FCF	**22,976**	**12,940**	**8,708**	**12,820**	**12,066**	**11,603**	**11,581**	**11,736**	**12,137**	**12,377**	**13,435**	**13,775**	**14,756**
Financial													
Financial result before taxes	(2,273)	(2,591)	(2,753)	(2,718)	(2,695)	(2,682)	(2,668)	(2,650)	(2,622)	(2,588)	(2,529)	(2,459)	(2,364)
Tax Shield	(1,746)	(884)	(1,101)	(1,087)	(1,078)	(1,073)	(1,067)	(1,060)	(1,049)	(1,035)	(1,012)	(984)	(946)
Change in Net Debt	(8,148)	1,632	8,107	(534)	(342)	(201)	(213)	(281)	(427)	(530)	(901)	(1,071)	(1,451)
Transactions with Shareholders	13,692	11,972	15,017	10,522	9,981	9,671	9,649	9,751	10,023	10,180	10,901	11,111	11,765
Transactions with Non-controlling interests	608	894	146	134	126	121	117	115	113	115	115	118	122
Financing Cash Flows	**(22,976)**	**(12,940)**	**(8,708)**	**(12,820)**	**(12,066)**	**(11,603)**	**(11,581)**	**(11,736)**	**(12,137)**	**(12,377)**	**(13,435)**	**(13,775)**	**(14,756)**

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Report Recommendations

Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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