UNIVERSIDADE CATÓLICA PORTUGUESA

Investment Case of GALP Energia SGPS, S.A.

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Católica Porto Business School
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GALP Energia SGPS, S.A.

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by

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Abstract

This thesis presents a comprehensive valuation analysis of GALP Energia SGPS, S.A., a leading energy company listed on the Euronext Lisbon Stock Exchange. Using Discounted Cash Flow (DCF) and Relative Valuation methodologies, the study estimates a target share price to determine whether GALP is overvalued or undervalued.

The structure of this thesis is designed to provide logical progression from valuation methodology to investment conclusion. The first chapter outlines the methodological framework, detailing the valuation techniques applied, namely the Discounted Cash Flow (DCF) model and Relative Valuation, as well as key financial concepts such as WACC, Cost of Equity, and Free Cash Flow (FCF). The second chapter provides an overview of GALP Energia, covering its business segments (Upstream, Industrial & Midstream, Commercial, and Renewables), its shareholder structure, and management remuneration policies, along with an industry analysis to contextualize the company within the broader energy sector. The third chapter presents the key forecasting assumptions and valuation results, incorporating macroeconomic trends, commodity price expectations, and company-specific drivers to project GALP's financial performance. Finally, the fourth chapter delivers the investment conclusion, synthesizing the valuation findings to assess whether GALP's current stock price accurately reflects its intrinsic value, ultimately guiding the investment recommendation.

The DCF model estimates a fair value of €20.86 per share at year-end 2025, suggesting an upside potential of 30.8% compared to GALP's market price of €15.95 as of December 31, 2024. In contrast, the Relative Valuation approach, using EV/EBITDA and P/E multiples, yields a more conservative estimate, with valuations of €11.01 per share (EV/EBITDA) and €8.03 per share (P/E), indicating a potential downside of 30.9% to 49.6% respectively of the market price.

Keywords:

DCF, Valuation, Free Cash Flow, Financial Forecasting, Cost of Capital, Capital Structure, Investment, WACC, Cost of Equity, Beta, Market Risk Premium, Risk-Free Rate, Cost of Debt, Terminal Value, Relative Valuation, P/E Ratio, EV/EBITDA, EBITDA, CAPEX, Depreciation and Amortization, Net Income, Working Capital, Corporate Governance, Shareholder Structure, Energy Industry, Upstream, Midstream, Refining, Renewables, Green Hydrogen, Biofuels, ESG, Brent Crude, Oil Prices, Euronext Lisbon, GALP Energia, Repsol, BP, TotalEnergies, Bloomberg Refinitiv Eikon.

Resumo

Esta tese apresenta uma análise de avaliação da GALP Energia SGPS, S.A., empresa líder em energia cotada na Bolsa de Valores Euronext Lisbon. Usando metodologias de Fluxo de Caixa Descontado (DCF) e Avaliação Relativa, o estudo estima um preço-alvo das ações para determinar se a GALP está sobrevalorizada ou subvalorizada.

A estrutura desta tese é projetada para fornecer progressão lógica da metodologia de avaliação para a conclusão do investimento. O primeiro capítulo descreve o quadro metodológico, detalhando as técnicas de avaliação aplicadas, bem como conceitos-chave financeiros. O segundo capítulo apresenta uma visão geral da GALP, abrangendo os seus segmentos de negócio, a sua estrutura acionista, políticas de remuneração da gestão e uma análise da indústria para contextualizar a empresa no setor energético. O terceiro capítulo apresenta os principais pressupostos de previsão e resultados de avaliação, expectativas de preços de commodities e drivers específicos da empresa para projetar o desempenho financeiro. Finalmente, o quarto capítulo apresenta a conclusão do investimento, para avaliar se o preço atual das ações da GALP reflete seu valor intrínseco, finalizando com a recomendação de investimento.

O modelo DCF estima um valor justo de €20,62 por ação no final do ano de 2025, sugerindo um potencial de alta de 29,3% em comparação com o preço de mercado da GALP de €15,95 em 31 de dezembro de 2024. Em contrapartida, a abordagem de Avaliação Relativa, utilizando múltiplos EV/EBITDA e P/E, produz uma estimativa mais conservadora, com avaliações de €11,01 por ação (EV/EBITDA) e €8,03 por ação (P/E), indicando um potencial downside de 30,9% a 49,6%, respetivamente, do preço de mercado.

Palavras-chave:

DCF, Valuation, Free Cash Flow, Financial Forecasting, Cost of Capital, Capital Structure, Investment, WACC, Cost of Equity, Beta, Market Risk Premium, Risk-Free Rate, Cost of Debt, Terminal Value, Relative Valuation, P/L Ratio, EV/EBITDA, EBITDA, CAPEX, Depreciação e Amortização, Lucro Líquido, Fundo de Maneio, Governança Corporativa, Estrutura Acionista, Indústria de Energia, Upstream, Midstream, Refino, Renováveis, Hidrogênio Verde, Biocombustíveis, ESG, Brent Crude, Preços do Petróleo, Euronext Lisbon, GALP Energia, Repsol, BP, TotalEnergies, Bloomberg Refinitiv Eikon.

Table of Contents

Table of Figures

Table of Tables

TOTAL WORDS: 7678

Introduction

My main goal with this thesis is to estimate a target price at year-end 2025 per share of GALP Energia SGPS, S.A. (ELI: GALP) listed on the Euronext Lisbon Stock Exchange, the Portuguese stock exchange. The company operates in the energy sector in Portugal and internationally and has four business segments: Upstream, Industrial & Midstream, Commercial, and Renewables. In the final part of this dissertation, I will give an investment recommendation about this company.

GALP was founded in 1999 following a restructuring in the Portuguese energy sector, with the name "GALP – Petróleos e Gás de Portugal SGPS, S.A.". Now named GALP Energia SGPS, S.A., the company is the result of a merger between two other important companies operating in Portugal: "Petrogal" and "Gás de Portugal".

This thesis aims to not only assess GALP's financial position and intrinsic value but also to contextualize its performance and strategy within the broader trends shaping the energy sector like ever increasing shift to renewable energy. By analyzing GALP's historical performance, competitive positioning, and projecting its growth potential, this research will present a comprehensive evaluation of the company and offer insights into the challenges and opportunities it faces in a rapidly changing market.

This thesis is structured as follows: Firstly, it presents a comprehensive literature review, explaining the theoretical framework and methodologies relevant to financial valuation and investment analysis. Next it provides an in-depth examination of GALP's history, business model, and competitive positioning within the energy sector. Following this, a detailed valuation analysis is conducted, utilizing methodologies such as Discounted Cash Flow (DCF) and Relative valuation. Finally, I conclude with an investment recommendation,

summarizing key findings and offering insights into GALP's potential as an investment opportunity

Literature Review

1. Valuation

Valuation is a fundamental concept in finance, economics, and investment decision-making, serving as the base for asset pricing and corporate strategy. Foundational works such as Fisher's *The Theory of Interest* (1930) introduced the concept of the time value of money, establishing a cornerstone for subsequent valuation models. The Modigliani-Miller theorem (1958) marked a change in corporate finance by challenging the traditional belief that a firm's capital structure—its mix of debt and equity financing—directly influences its overall value. Their work demonstrated that, under a set of idealized conditions, including perfect markets, no taxes, no transaction costs, and symmetric information, the value of a firm is irrelevant to its capital structure. This conclusion was based on the principle that the firm's value is determined by its ability to generate cash flows from its underlying assets alone and not by how those cash flows are distributed between equity and debt holders. This changed how firms view leverage and risk, emphasizing the role of underlying cash flows rather than financing decisions. However, as the field advanced, the relevance of the Modigliani-Miller theorem to real-world corporate finance was increasingly called into question as in practice, financial markets are far from perfect; taxes, transaction costs, bankruptcy risks, and asymmetry of information significantly influence capital structure decisions. In their follow-up paper titled *"Corporate Income Taxes and the Cost of Capital: A Correction."* in 1963, corporate taxes were introduced into the analysis. In the presence of taxes, debt financing creates a tax shield as interest payments are tax-deductible, effectively lowering the overall

cost of capital and increasing the value of levered firms compared to unlevered ones.

Books like *Investment Valuation* by Damodaran (2019) and *Valuation: Measuring and Managing the Value of Companies* by Koller et al. (2015) provide comprehensive and foundational perspectives on valuation methodologies, offering both theoretical insights and practical frameworks that have been widely adopted across industries. Damodaran emphasizes the versatility of discounted cash flow (DCF) analysis, stating it as one of the most rigorous methods for estimating intrinsic value. DCF's reliance on projected cash flows and discount rates makes it highly adaptable, but also introduces significant challenges, particularly regarding the accuracy of inputs. DCF analysis relies heavily on assumptions about growth rates, discount factors, and terminal values, arguing that small deviations in these inputs can lead to substantial variations in valuation outcomes.

Comparative valuation methods, which use relative measures such as price-to-earnings (P/E) and enterprise value-to-EBITDA (EV/EBITDA) multiples, both used in this thesis, offer a more practical and complementary approach to intrinsic valuation techniques.

Kaplan and Ruback (2017) concluded that DCF-based valuations, when properly executed, can yield reliable and accurate estimates of a firm's value. They found that when firms have predictable cash flows and there is confidence in future earnings, DCF is generally superior to multiples-based approaches in terms of providing an intrinsic value based on the underlying fundamentals of the company. In addition to these works, *The Right Role for Multiples in Valuation* (Goedhart et al., 2005) provides a valuable perspective on the proper application of multiples-based approaches. The authors argue that multiples should be seen as complementary tools rather than substitutes for more detailed intrinsic valuation techniques like DCF. They emphasize that while multiples offer a

useful way to benchmark a company's market value relative to comparable firms, they can be misleading if misapplied or over-relied upon.

After reviewing the literature above, I focused on two primary valuation models: Discounted Cash Flow (DCF) and relative valuation as DCF will provide a detailed and intrinsic view of a company's value based on its projected cash flows, allowing for a deeper understanding of a firm's long-term financial health and relative valuation because it will offer a market-based perspective, using multiples to compare a firm to its peers complementing the DCF model.

1.1 Discounted Cash Flow Model

Discounted Cash Flow Model is a method used in Valuation and Corporate Finance to determine the fair value of assets or firms by forecasting future cashflows and discounting them to the present with a discount rate called cost of capital. As the (real) economic life of the asset can be very high (or unlimited), cash flows are usually estimated for a limited period of time. After that, the residual value is estimated assuming that cash flows are in steady state at the end of the planning period.

There is a family of DCF models, that diverge between them based on their focus of valuation (enterprise or equity) and the way financing and investing decisions interact. The mostly used DCF model in corporate finance is the Free Cash Flow to the Firm (FCFF), which is focused on enterprise valuation and where financing decisions are exclusively considered in the estimated cost of capital (and not in the cash flow metric). In this dissertation we use the FCFF.

To select the appropriate DCF model, we have to look at the firm's characteristics. If were valuing a financial firm, the Free Cash Flow to Firm model (FCFE) using cost of equity (r_e) is appropriate. If it is a non-financial firm with a stable capital structure, the Free Cash Flow to Firm (FCFF) approach using WACC should be used. If the firm does not have a stable capital structure, the

selection depends on whether the asset beta (β_a) is known—if so, the Capital Cash Flow model (CCF) using expected asset return (r_a) is preferred; otherwise, the Adjusted Present Value (APV) model with unlevered cost of capital (r_u) should be applied, which is the Capital Cash Flow approach just with a different discount rate. The figure illustrates the decision-making framework that ensures that the valuation method aligns with the firm's financial structure and available information.

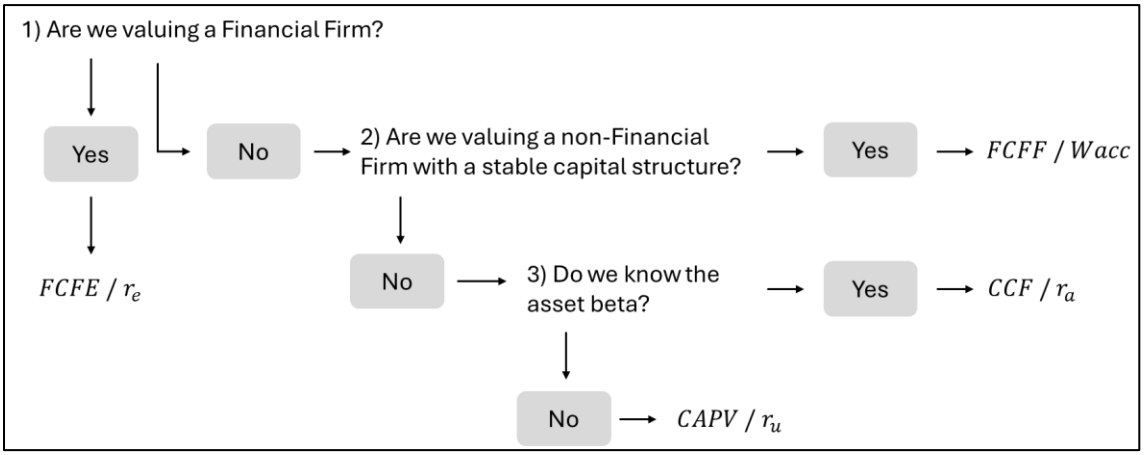

Figure 1 – Decision framework for selecting the appropriate Valuation Model

1.1.1 WACC

The Weighted Average Cost of Capital (WACC) is a fundamental concept in corporate finance and valuation, serving as an important measure of a company's cost of capital which is the average rate of return that a company is expected to provide its investors—both equity holders and debt holders—to compensate them for the risks associated with their investment. WACC is calculated as a weighted average of the cost of equity and the after-tax cost of debt, with the respective weights reflecting the proportion of equity and debt in the company's capital structure.

$$WACC = r_e \times w_e + r_d \times w_d \times (1 - T)$$

1.1.1.1 Cost of Equity

The Cost of Equity (*re*) represents the return that equity investors require to compensate for the risk of investing in a company. It reflects the opportunity cost of investing capital in a particular business versus alternative investments with similar risk profiles. The cost of equity is commonly estimated using models such as the Capital Asset Pricing Model (CAPM), which incorporates the expected return on equity by combining the risk-free rate of return (*rf*), the equity risk premium (*rm – rf*) which is the additional return required for investing in equities over risk-free assets, and the equity beta (βe) which represents a measure of its systematic risk relative to the market.

The formula expresses as:

$$r_e = r_f + (r_m - r_f) \times \beta$$

1.1.1.1.1 Beta

The beta coefficient (β) quantifies a security sensitivity to systematic risk, also referred to as market risk. It indicates the extent to which a company's stock price is expected to move relative to the overall market.

β = 1: The stock's price is expected to move in line with the market.

β > 1: The stock is more volatile than the market, meaning it amplifies market movements. It is considered riskier but may offer higher potential returns.

β < 1: The stock is less volatile than the market, often seen as less risky but with lower expected returns.

Beta serves as a proxy for systematic risk, which cannot be diversified away. It is a critical component of CAPM, as it links the expected return of an asset to its level of market risk. Beta is used by investors and analysts to evaluate a stock's contribution to portfolio risk, compare the risk-return profiles of different investments or estimate the cost of equity, which factors directly into valuation and investment decisions.

The formula expresses as:

$$\beta = \frac{Cov(Ri, Rm)}{Var(Rm)}$$

Where:

Ri: The return of the individual stock.

Rm: The return of the market portfolio.

$Cov(Ri, Rm)$: The covariance between stock and market returns.

$Var(Rm)$: The variance of the market returns.

To calculate the levered (equity) beta, we need to know the firm's debt-to-equity (D/E) ratio, as beta is influenced by the firm's capital structure. Specifically, we use the unlevered beta and adjust it based on the firm's Debt to Equity (D/E) ratio which is how much debt the firm have to equity to reflect leverage profile of the firm. The D/E ratio used is based on the firm's target capital structure, and so we use the values from the last year of the valuation forecast (in this work it's 2030) to ensure consistency with the estimated cash flows making the firm's capital structure very relevant to the beta and overall results of the model.

1.1.1.1.2 Market Risk Premium

The Market Risk Premium (MRP) is a critical concept in valuation, representing the additional return that investors expect to earn from investing in a diversified market portfolio over a risk-free asset. It captures the compensation required for assuming systematic risk, which cannot be diversified away.

In the context of the Capital Asset Pricing Model (CAPM), there is a single systematic risk factor which is represented by the market risk premium (MRP). The MRP reflects the additional return that investors require for choosing to invest in the stock market over a risk-free asset. In valuations, the choice of MRP

directly affects the calculated cost of equity and, consequently, the firm's intrinsic value. A higher MRP increases the discount rate, reducing the present value of future cash flows, and vice versa. Therefore, selecting an appropriate MRP is critical, as it has a direct impact on investment decisions, firm valuation, and perceived risk.

1.1.1.1.3 Risk-Free Rate

The risk-free rate (*rf*) represents return on an investment with a hypothetical investment with zero risk of default and no variability in expected returns. It serves as the baseline for all other rates of return.

In practice, the risk-free rate is typically proxied by the yield on government securities, such as long-term treasury bonds in the United States, due to their low default risk and high liquidity. The choice of the appropriate government bond depends on maturity as longer-term bonds, such as a 10-year or 30-year treasury, is often used for valuation as it aligns with the long-term nature of cash flows being discounted.

In Europe due to the low default risk and high liquidity, it is standard practice to use the German Bund 10-year bond for European equity valuation.

1.1.1.2 Cost of Debt

The cost of debt is a fundamental concept in corporate finance, representing the effective rate that a company pays on its borrowed funds. This component plays a crucial role in a firm's capital structure decisions, impacting financial performance, investment strategies, and overall valuation. When calculating the cost of debt, both the interest paid and the total debt already reflect the risk-free rate, so there is no need to add it again. However, it is important to consider the credit risk premium, which captures the additional return demanded by lenders for bearing the firm's default risk. This credit risk is intrinsically linked to the

firm's target capital structure, as higher leverage typically increases perceived credit risk and, consequently, the cost of debt.

The formula to calculate the cost of debt is:

$$r_d = \frac{Interest\ Paid}{Total\ Debt} * (1 - Tax\ rate)$$

1.1.2 Capital Structure

Capital structure is a fundamental concept in corporate finance, referring to the mix of debt and equity that a firm uses to finance its operations and growth. The selection of an optimal capital structure is crucial for a firm's financial stability, cost minimization, and value maximization. Theories such as the trade-off theory, the pecking order theory, and Modigliani and Miller's propositions provide different perspectives on how firms structure their finances and the implications of these choices on performance and risk exposure.

When valuing firms using the DCF model, capital structure is crucial as it directly influences the WACC as it depends on the firm's capital structure to determine both the cost of equity and the cost of debt. The cost of equity is impacted by the debt-to-equity (D/E) ratio, which reflects the firm's leverage and risk profile, while the cost of debt is influenced by the projected future value of debt and the interest payments made over time.

1.2 Relative Valuation

Relative valuation is a widely used approach in corporate finance and investment analysis that determines the value of an asset by comparing it to similar assets in the market. This method relies on financial multiples and market comparables to assess whether a company or an asset is fairly valued, overvalued, or undervalued relative to its peers. Unlike intrinsic valuation, which estimates value based on an entity's fundamental cash flows, relative

valuation provides a market-driven perspective that is often more practical in dynamic financial environments.

A fundamental aspect of relative valuation is the selection of appropriate valuation multiples. The most used multiples include the Price-to-Earnings (P/E) ratio, Enterprise Value to EBITDA (EV/EBITDA), Price-to-Book (P/B) ratio, and Price-to-Sales (P/S) ratio. Each of these multiples provides insights into different aspects of a company's financial performance and market perception. For instance, the P/E ratio is often used for valuing mature companies with stable earnings, whereas EV/EBITDA is preferred for capital-intensive industries with varying capital structures (Damodaran, 2012).

One of the key advantages of relative valuation is its simplicity and market relevance. Since it relies on actual market prices, it reflects investor sentiment and market conditions more accurately than purely theoretical models. The reliance on market prices does introduces limitations, such as the risk of mispricing due to temporary market inefficiencies, speculative bubbles, or distortions caused by external factors like economic downturns.

2. Company and Industry

Galp Energia, S.A., a prominent Portuguese energy company headquartered in Lisbon, has a rich history that reflects its evolution alongside Portugal's industrial development. The company's origins can be traced back to 1848 with the installation of Lisbon's first gas streetlamps.

Galp's foundation was shaped by the consolidation of key players in Portugal's energy sector such as CRGE, Sonap, Sacor, Cidla, SPP and Petrosul. One of its predecessors, SACOR, played a crucial role in the country's oil industry, expanding its operations internationally in 1954 to the country's

overseas territories, notably Angola and Mozambique. Following the Portuguese Revolution in 1974 and the independence of these African territories, SACOR was nationalized in 1975. In April 1976, Petróleos de Portugal (PETROGAL) was formed by merging SACOR with three other nationalized oil companies.

The entity known as Galp Energia was officially established on April 22, 1999, through the merger of Petrogal, Gás de Portugal, and Transgás.

2.1 Corporate Structure

2.1.1 Corporate Governance Model

Galp's corporate governance model is designed to guarantee levels of transparency and a clear definition and allocation of responsibilities. At the top, there's the Board of Directors, which oversees the company's strategic direction and supervises management. From this board, an Executive Committee is selected to handle the daily operations of the business. To ensure proper oversight, Galp has an Audit Board and a Statutory Auditor, responsible for checking financials, managing risks, and ensuring compliance. Since Galp is a publicly traded company, it follows strict governance rules, including having a Lead Independent Director and three specialized committees, Audit, Sustainability, and Risk Management, which are made up entirely of non-executive directors.

To strengthen supervision, the Board appointed a non-executive director to specifically monitor the Executive Committee's activities. The Chair of the Board of Directors is also responsible for managing relations with shareholders, ensuring the company stays on track with its long-term goals and sustainability efforts.

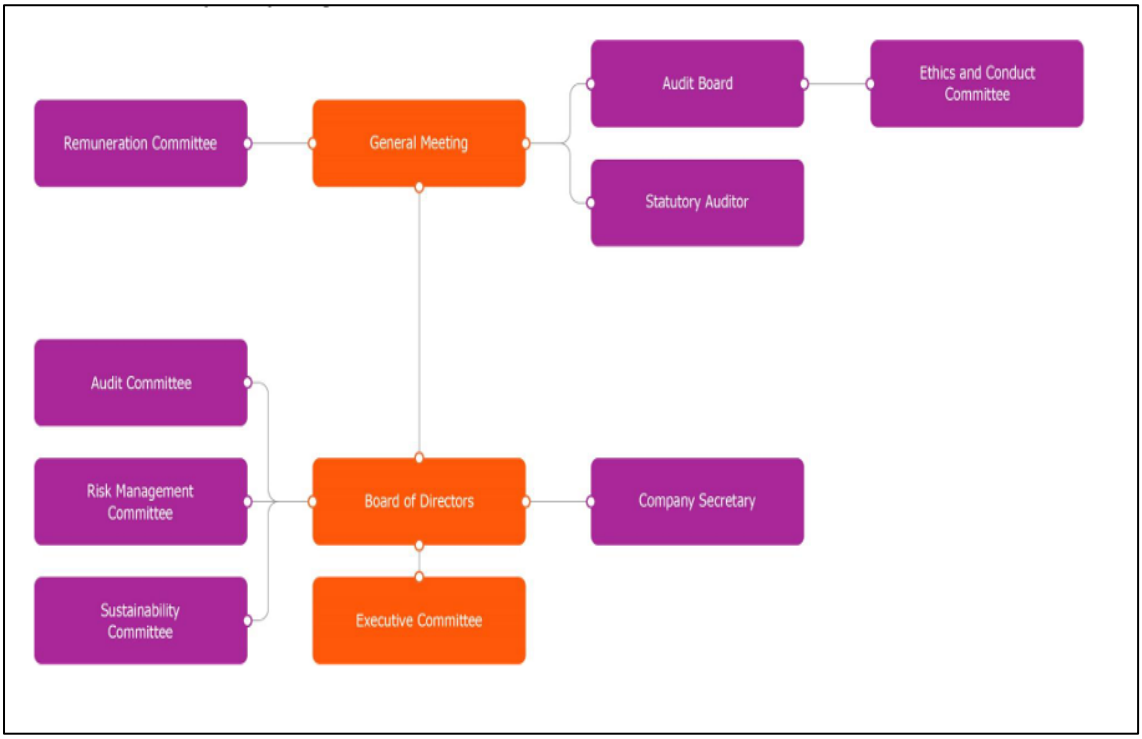

Figure 2 - Corporate Governance Structure

2.1.2 Management Remuneration

The management compensation structure is divided into fixed and variable compensation. In the case of executive directors, the fixed compensation corresponds to the base salary and complemented by a variable component, which breaks down into short- and long-term incentives. The short-term variable (STI) component is indexed to a set of metrics that include financial, operational and sustainability objectives, and its attribution and value depend on the achievement of these objectives within the established parameters. The Long-Term Incentive (LTI) component consists of the allocation of rights to the company's shares, which can only be exercised after a deferral period of four

years. The value of this component is proportional to the manager's hierarchical position within the Executive Committee, representing 60% of the gross annual fixed remuneration in the case of the CEO and 30% for the other executive members. The objective is to ensure that long-term variable remuneration is only achieved if the company's performance remains consistent over the stipulated period, avoiding the attribution of financial benefits based on one-off or volatile results.

In addition, there is a 'clawback' mechanism that allows the company to recover part, or all the variable remuneration already awarded, in case of errors in the performance evaluation, contractual breaches or other situations that justify the reversal of the payment.

On the other hand, non-executive directors and the Supervisory Board do not benefit from any type of variable remuneration, receiving only a fixed monthly remuneration.

2.1.3 Shareholder's Structure

Galp's shareholder structure is made up of several stakeholders, the main ones being: Amorim Energia B.V., which holds 36.7% of the share capital with voting rights. Institutional investors hold 55.1% of the shares, which are free-float shares traded on Euronext Lisbon. Among these institutional investors, Massachusetts Financial Services Company and T. Rowe Price Group Inc. are considered key shareholders, with each having 5%-10% of shares. The Portuguese State, through Parpública – Participações Públicas, SGPS, S.A., hold the remaining 8.02% of the share capital with voting rights and these are unlisted shares. All shares grant the same voting and economic rights, ensuring equity among shareholders.

2.2 Business Segments

Galp's business structure is organized into four key segments: Upstream, Industrial & Midstream, Commercial, and Renewables & New Businesses, each contributing to the company's integrated energy strategy.

2.2.1 Upstream

Galp has 19 upstream projects in different phases of exploration, development, and production. Galp's development projects include two of the largest oil and natural gas discoveries of the last decades, located in the pre-salt of the Santos basin in Bacalhau Brazil, and in the Rovuma basin in Mozambique. Other exploration assets are located in Namibia and São Tomé and Príncipe. The Bacalhau project is considered one of the most promising assets in the pre-salt of the Santos basin due to the high-pressure conditions of the reservoir and its high-quality resources.

Galp is restructuring its *Upstream* business through divestitures and expansion in other areas, demonstrating a commitment to optimizing its portfolio through the sale of assets and a focus on low-carbon projects. Galp divested its assets in Angola, resulting in a capital gain of €138 million, and signed an agreement to sell the *Upstream* assets in Mozambique to ADNOC (Abu Dhabi National Oil Company), completed in the end of 2024, to receive $650 million for its 10% stake in the *Upstream* asset with additional contingent payments of $100 million and $400 million dependent on the investment decisions of Coral Norte and Rovuma LNG (Liquid Natural Gas).

In 2023, Galp started an exploration campaign in Namibia, preparing and executing the drilling of two consecutive exploratory wells which showed the presence of light oil and positive characteristics in terms of porosity and permeability which translates to lower extraction costs, higher production efficiency, and better refining yields, leading to higher profitability and lower operational risk.

2.2.2 Industrial & Midstream

The Industrial segment includes the refining, logistics, biofuels, and cogeneration activities in Iberia, as well as the upcoming transformational green hydrogen project. The Midstream segment comprises the supply & trading activities of oil, gas and electricity focused on value maximization across the integration of the businesses and its value chains.

The Sines refinery is one of the largest in the Iberian Peninsula and the only refinery in Portugal. Its capacity and complexity, as well as its coastal location and deep-water port infrastructure, make it highly competitive. The company is reconfiguring its industrial segment, concentrating its refining activities in Sines and improving the energy efficiency of its operations. The company aims to progressively replace fossil fuels with renewable sources through the integration of green hydrogen and the development of low-carbon fuels. In 2023, Galp made a final investment decision on two large-scale projects to reduce the carbon footprint of the Sines refinery and its products. The projects include a 270 ktpa advanced biofuels unit and 100 MW of electrolyzers for the production of green hydrogen, both units are expected to start their activity at the end of 2025. It also approved, in 2023, an approximately €400 million investment in an advanced biofuels unit, with the aim of producing renewable diesel (HVO) and sustainable aviation fuel (SAF).

2.2.3 Commercial

Galp's commercial business provides a complete, integrated and client-centric offer, ranging from oil products, gas and electricity to companies and retail customers in different geographies. This division also includes electric mobility and decentralized solar businesses in Iberia.

At the end of 2023, Galp's retail network consisted of a total of 1,257 gas stations in the Iberian Peninsula, 697 of which were in Portugal and during the year it reached a market share of around 26% in Portugal and around 4% in Spain

Galp is is the leading supplier of electric vehicle charging points in Portugal and is rapidly expanding its network in the Iberian Peninsula. The company aims to have 10,000 installations by 2025 and is also positioned to tap into the rapidly growing decentralized energy market in the Iberian Peninsula.

2.2.4 Renewables & New Businesses

The Renewables & New Businesses unit includes under its renewable energy generation portfolio, which is currently focused on Iberia, and a lithium conversion project under its New Businesses segment. In parallel, the unit continuously identifies, assesses, and develops new value creation business opportunities in the energy space.

2.3 Energy Industry

The global energy industry is undergoing a significant transformation, shaped by evolving market dynamics, technological advancements, and regulatory pressures. Historically dominated by fossil fuels, the sector has been adapting to shifting geopolitical factors, environmental concerns, and the increasing role of renewable energy sources.

In recent years, oil price volatility has remained a defining characteristic of the industry, driven by fluctuations in global supply and demand, geopolitical instability, and production adjustments by major players such as OPEC+. Brent crude, which serves as a benchmark for global oil pricing, has seen significant swings due to macroeconomic uncertainties and policy shifts towards decarbonization. The ongoing energy transition has also led to a reassessment of

investment priorities among oil majors, with an increasing focus on diversification into low-carbon technologies and sustainable energy solutions.

In Europe, regulatory frameworks and sustainability policies have placed additional pressure on traditional energy firms. The "*European Green Deal*" and the "*Fit for 55*" regulations aim to achieve carbon neutrality by 2050, mandating strict emissions reductions and promoting investment in renewable energy, hydrogen, and carbon capture technologies. This regulatory push has led major oil and gas companies to reconsider their business models, investing in biofuels, green hydrogen, and electrification solutions to align with policy directives. Also, the EU Taxonomy for Sustainable Activities is redefining financial incentives, influencing capital allocation towards more environmentally sustainable projects.

Despite this shift, fossil fuels continue to play a crucial role in global energy security. Oil and natural gas remain primary energy sources, particularly in regions where energy demand continues to rise, such as Asia and Africa. Energy security concerns, particularly considering geopolitical conflicts in the Middle East and Eastern Europe, have shown the importance of a balanced transition strategy that ensures supply stability while advancing decarbonization goals. As a result, integrated energy companies are adopting a dual approach, optimizing traditional hydrocarbon production while expanding investments in renewable energy and emerging low-carbon technologies.

Looking ahead, the future of the energy industry will be shaped by several key trends. Firstly, the pace of electrification and the expansion of renewable energy sources, particularly wind and solar, will redefine global energy markets. Secondly, advancements in energy storage solutions and hydrogen technologies will play a major role in addressing the challenges associated with renewables. Lastly, the increasing emphasis on ESG compliance and carbon pricing

mechanisms will influence corporate strategies, requiring companies to adapt their portfolios to remain competitive in a low-carbon economy.

For GALP Energia, these industry dynamics present both risks and opportunities. While its traditional upstream and refining operations face pressures from emissions reduction targets, its growing renewables and biofuels portfolio positions the company to capitalize on Europe's energy transition policies.

3. Forecasting Assumptions and Valuation Results

In this section, I present the valuation results and the forecasting assumptions for Galp, with the aim of determining whether the company is overvalued or undervalued. The valuation reference period is year-end 2025 and the reference market price is €15,95 as of 31st of December 2024. The results are based on a detailed financial analysis that employs established methodologies to assess Galp's current market position. The forecasting assumptions are based on historical performance data, industry trends, the general macroeconomic landscape and my interpretation of management's plan. Also, the forecasted period in my analysis is 5 years which after that, I assume a constant growth of the firm till perpetuity using Gordon's Model to compute the terminal value.

3.1 Revenues

Over the period from 2020 to 2024, Galp's revenue composition reveals a significant dependence on the upstream segment, which on average contributes approximately 73% of total revenues. In contrast, the commercial segment accounts for about 7%, industrial and midstream activities represent 18%, and the renewables segment remains a minor contributor at just 1%. Given this

distribution, any decline in the upstream segment can significantly affect the firm's overall financial performance. In 2025, for instance, two factors are expected to impact revenues: first, the sale of matured upstream assets in Angola and Moçambique, which will reduce production output; and second, a projected decrease in average Brent crude prices—from an average of $81.2 per barrel in 2024 to around $71 per barrel. We can see in the graph the correlation between average brent prices and revenue growth.

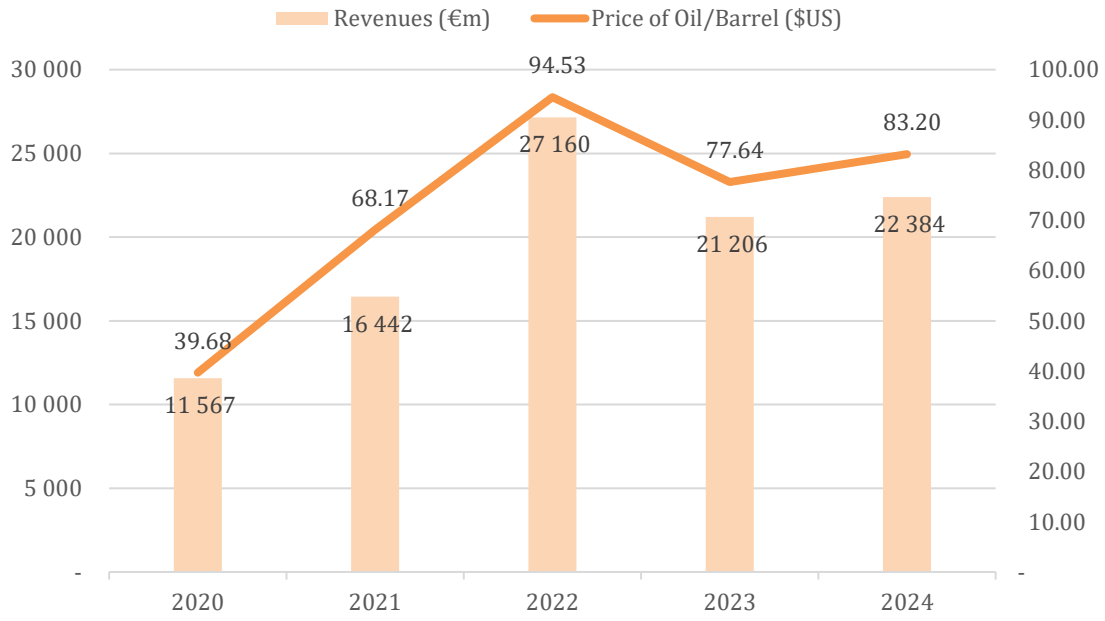

Figure 3 - Revenue perfectly follows Brent Price ($US)

Based on these considerations, I forecast a 10% drop in revenues for 2025, as the reduced production output will likely ripple through the supply chain, affecting both midstream and downstream segments. In 2026, I anticipate a modest year-over-year increase of 0.5%, driven by operational investments in the Bacalhau basin in Brazil that are expected to enhance output and efficiency, along with the impact of investments made in the Sines Refinery in 2023 coming to fruition at the end of 2025. For 2028 and 2029, I forecast revenue increases of 4% each year, followed by a 6% increase in 2030. This more robust growth is primarily attributed to the promising outlook of the Namibia basin, where Galp

holds an 80% stake and which is expected to consistently yield significant oil reserves, a key reason behind the optimistic analyst sentiment toward the stock. Overall, in the entire projected period I forecast on average a 1.35% year-over-year growth.

In the following graph I display the expected growth of revenues of the firm during the historical and projected period.

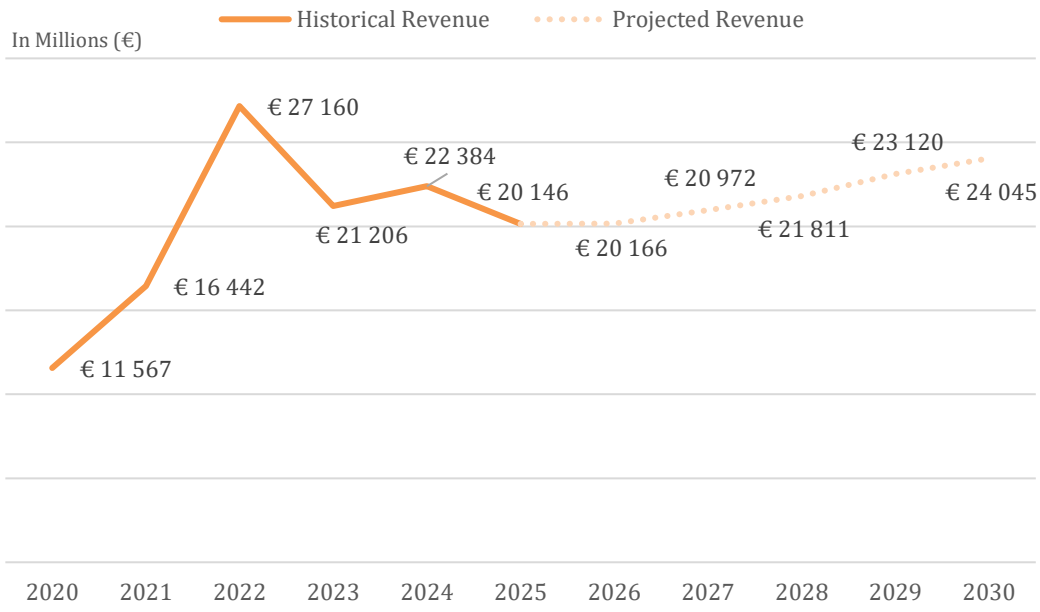

Figure 4 - Forecasted and Projected Revenue Growth

3.2 Cost of Sales

I examine Galp's Cost of Sales (COS), a key element in understanding the Company's overall profitability and operational efficiency. Under IFRS reporting, COS captures the direct expenses associated with producing, acquiring, and delivering goods to customers. These include raw and subsidiary materials, goods purchased for resale, relevant taxes, changes in production inventories, and certain derivative and exchange-rate effects. However, Galp does not provide a detailed breakdown of employee costs by role or function, so it is unclear how much of the Company's overall personnel expenses would be

categorized as part of COS. Consequently, the line item for employee costs appears separately, without distinguishing between production and non-production staff.

When projecting this item, the historical cost structure tends to evolve more consistently than its revenue streams, which can be influenced by commodity price fluctuations, macroeconomic shifts, and industry cycles. The cost of sales tends to follow more stable, predictable patterns. Although there may be year-to-year variations due to external factors these fluctuations typically do not mirror the same degree of volatility seen in revenues.

Therefore, by closely examining Galp's historical financials, I can reasonably assume that the Cost of Sales will maintain a relatively consistent trajectory over time.

In the graph we can see the correlation and consistency in growth between revenues and the cost of sales.

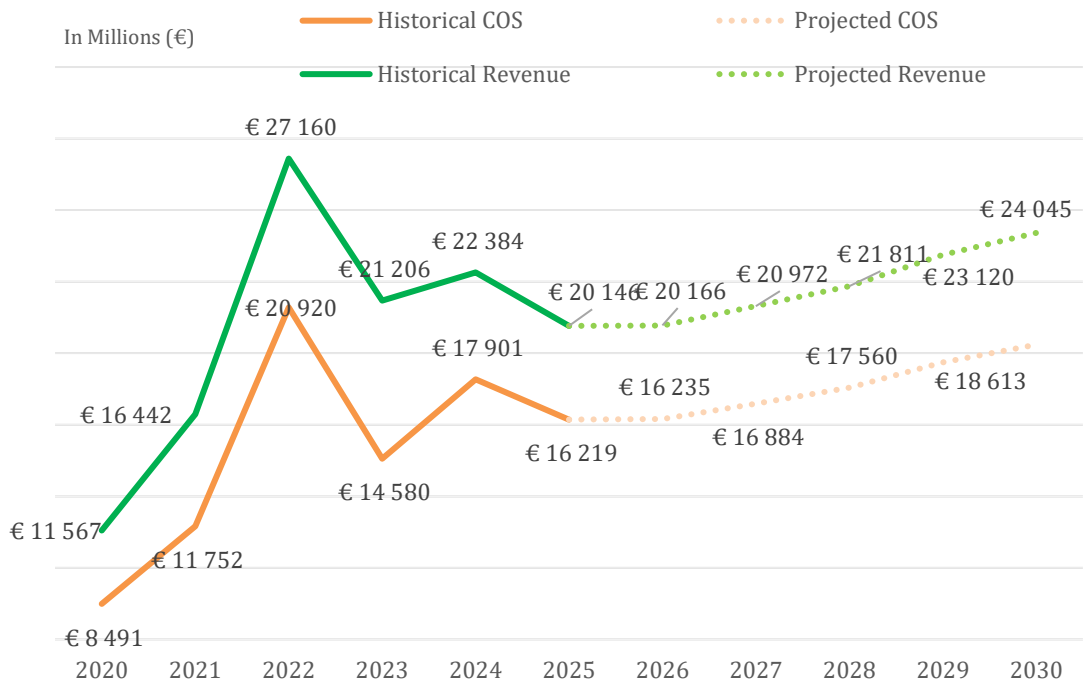

Figure 5 - Revenue and Cost of Sales Growth

As shown in the table and graph, Cost of Sales has historically ranged between 68% and 79% of Galp's revenues. While market dynamics and commodity prices can lead to deviations, the ratio itself tends to remain relatively stable over the long run. Since I previously noted that Galp does not include personnel costs under COS, it becomes challenging to precisely match every expense in the income statement to the Cost of Sales category.

Given these reporting constraints, I have adopted a simplified projection for the 2025–2030 period by setting Cost of Sales constant at 71.3% of revenues. This figure is based on Galp's average historical period and even with year-to-year variations, the Company's cost structure has shown relative consistency over time.

I am aware this approach may not capture every nuance of COS, but it provides a reliable foundation for forecasting, based on the financial disclosures currently available.

	2020	**2021**	**2022**	**2023**	**2024**
Revenues	€11,567	€16,442	€27,160	€21,206	€22,384
Cost of sales	€8,491	€11,752	€20,920	€14,580	€17,901
% of Revenues	73.4%	71.5%	77.0%	68.8%	78,8%

Table 1 - Percentage of Cost of Sales over Revenues; figures in millions of euros

3.3 EBITDA

The Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) is a widely used metric that measures a company's operating

performance by focusing on the income generated from core business activities, excluding the effects of financing decisions, taxes and non-cash expenses related to depreciation and amortization – essentially is the measure to assess a company's ability to generate operating cash flow.

	2020	**2021**	**2022**	**2023**	**2024**
Revenues	100%	100%	100%	100%	100%
Inventories consumed and sold	73,1%	71,5%	77,0%	68,8%	70,6%
Materials and services consumed	12,7%	9,5%	7,0%	10,5%	9,3%
Personnel costs	3,1%	1,9%	1,4%	2,1%	2,0%
Other operating costs	1,4%	0,7%	0,4%	1,2%	1,3%
EBITDA	**9,6%**	**16,4%**	**14,3%**	**17,5%**	**14,8%**

Table 2 - Revenue breakdown to EBITDA. (in %)

Historically, EBITDA has fluctuated around 14.5% of revenues, as shown in the table above, reflecting Galp's generally stable cost structure. In developing my forecast, I considered this historical consistency but also, and mentioned before, the investments in advanced biofuels and green hydrogen at the Sines refinery, which are scheduled to come online at the end of 2025. These projects are expected to boost efficiency and lower carbon-related costs, leading to

gradual improvements in the EBITDA margin over the projection period, as illustrated in the table below.

	2025e	2026e	2027e	2028e	2029e	2030e
Revenues	100%	100%	100%	100%	100%	100%
Inventories consumed and sold	73,0%	72,9%	72,8%	72,8%	72,7%	72,7%
Materials and services consumed	9,2%	9,2%	8,9%	8,7%	8,6%	8,5%
Personnel costs	2,0%	2,0%	2,0%	2,0%	2,0%	2,0%
Other operating costs	1,1%	1,1%	1,1%	1,1%	1,1%	1,1%
EBITDA	**14,8%**	**14,9%**	**15,2%**	**15,4%**	**15,6%**	**15,7%**

Table 3 - Projected Revenue breakdown to EBITDA (in %)

3.4 Depreciations and Amortizations

Depreciation and Amortization (D&A) are non-cash expenses that allocate the cost of tangible and intangible assets over their useful lives, capturing the consumption of the assets' economic value during business operations. Galp, due to the nature of the business they operate in, has capital intensive activities such as upstream exploration, production and refining which is reflected in the high D&A rates as shown on the table below.

	2020	2021	2022	2023	2024
Revenues	€11,567	€16,442	€27,160	€21,206	€22,384
EBITDA	€1,113	€2,698	€3,885	€3,709	€3,738
Tangible Fixed Assets	€4,878	€5,169	€5,700	€6,029	€5,818
Depreciations and Amortizations	(€1,289)	(€961)	(€1,380)	(€987)	(€820)
D&A percentage of Revenues	**11,1%**	**5,8%**	**5,1%**	**4,7%**	**3,7%**
D&A percentage of EBITDA	**115,8%**	**35,6%**	**35,5%**	**26,6%**	**22,0%**
D&A percentage of Fixed Assets	**26,4%**	**18,6%**	**24,2%**	**16,4%**	**14,1%**

Table 4 - D&A and Key Ratios (2020–2024); figures in millions of euros

We can observe that 2020 stands out because the COVID-19 pandemic severely impacted the industry, causing sharp drops in revenues and, by extension, a more pronounced effect on EBITDA. So, D&A-to-Revenues and D&A-to-EBITDA ratios appear significantly higher in 2020 compared to the next years. This effect, however, is not observed in the D&A-to-Fixed-Assets ratio, since fixed assets themselves are not directly influenced by short-term macroeconomic events.

What I project of the following years is a small but steady rise in D&A, in line with Galp's extensive capital investments, notably in Namibia and Bacalhau upstreams, Sines refinery upgrades, retail expansion, and renewables projects. Still all percentages are around the historical average observed as we see in the table below.

	2025e	**2026e**	**2027e**	**2028e**	**2029e**	**2030e**
Revenues	€20,146	€20,166	€20,972	€21,811	€23,120	€24,045
EBITDA	€2,976	€2,999	€3,192	€3,363	€3,611	€3,780
Tangible Fixed Assets	€6,051	€6,354	€6,735	€7,206	€7,495	€7,869
Depreciations and Amortizations	(€1,007)	(€1,109)	(€1,195)	(€1,265)	(€1,364)	(€1,443)
D&A percentage of Revenues	**5,0%**	**5,5%**	**5,7%**	**5,8%**	**5,9%**	**6,0%**
D&A percentage of EBITDA	**33,8%**	**37,0%**	**37,5%**	**37,6%**	**37,8%**	**38,2%**
D&A percentage of Fixed Assets	**16,6%**	**17,5%**	**17,7%**	**17,6%**	**18,2%**	**18,3%**

Table 5 - Projection of D&A and Key Ratios (2025–2030); figures in millions of euros

3.5 Working Capital

Working capital is calculated by adding current assets - accounts receivables, other receivables, inventories, and cash and equivalents, then subtracting current liabilities - accounts payables and other payables. This reflects how well the company can finance its day-to-day operations and meet short-term obligations with the most liquid assets.

Changes in working capital are influenced not only by operational needs but also by the company's commercial policies and relationships. On the client's side, the payment terms offered play an important role. If the company allows clients more time to pay, accounts receivable will increase, which means more capital is tied up. Stricter payment terms can reduce receivables but may affect customer satisfaction or competitiveness. Regarding suppliers, the company's ability to negotiate payment conditions affects the accounts payable. Longer payment terms reduce the need for immediate cash outflows, improving liquidity. However, shorter terms may be necessary to maintain good supplier relationships or if the company has lower bargaining power. Since I don't have any information on the firm's side that states a big shift on both client and supplier side, the forecasting of the items follows the historical year-over-year growth of the historical development with an average growth of 5% / year. Overall, my intention in forecasting these items was to maintain the strong liquidity the firm showed in the past. The Changes in Working Capital were computed by the simple yearly variation of the account from one year to the other.

	2025e	2026e	2027e	2028e	2029e	2030e
Accounts receivables	1,722	1,723	1,792	1,864	1,976	2055
Other receivables	777	778	809	842	892	928
Accounts payables	940	941	979	1,018	1,079	1,122
Other payables	1,582	1,584	1,647	1,713	€1,816	€1,888
Inventories	€1,097	€1,098	€1,142	€1,188	€1,259	€1,309
Cash and equivalents	€1,980	€1,982	€2,061	€2,144	€2,273	€2,363
Working Capital, Cash, and Cash Equivalents	**€3,054**	**€3,057**	**€3,179**	**€3,307**	**€3,505**	**€3,645**
Changes in WC	**(€182)**	**€3**	**€122**	**€127**	**€198**	**€140**

Table 6 - Forecasting of Working Capital (2025-2030); figures in millions of euros

3.6 Capital Expenditure

CAPEX refers to the funds a company invests in acquiring, maintaining, or upgrading long-term assets, such as property, equipment, and technology. These expenditures are crucial for expanding production capacity, enhancing operational efficiency, and driving innovation. CAPEX decisions affect the firm's profitability and ability to generate cash flows due to the capital-intensive nature of the oil industry. Companies disclose capital expenditure in the investing activities section of the cash flow statement, reflecting the actual cash spent on tangible and intangible assets. But to forecast this item it is necessary to use a

proxy CAPEX calculated as the year-over-year change in tangible and intangible assets and adding back Depreciations & Amortizations.

Using this proxy approach, and in line with management's upstream expansion plans in Namibia and Bacalhau, I have forecasted an average year-over-year growth of 5.17% in Fixed Assets, compared to the historical 4.63%. This slight increase reflects the additional investments, which in turn raise D&A and push overall capital expenditure to a 10.94% average year-over-year growth rate, up from the historical 6.20%. The figure and table below illustrate these CAPEX developments.

	2025e	**2026e**	**2027e**	**2028e**	**2029e**	**2030e**
Dif. in Fixed Tangible Assets	€233	€303	€381	€471	€288	€375
Dif. in Intangible Assets	€112	€119	€126	€133	€141	€150
D&A	€345	€421	€507	€605	€430	€525
CAPEX	**€1,352**	**€1,530**	**€1,703**	**€1,870**	**€1,794**	**€1,967**

Table 7 - Forecasting of CAPEX; figures in millions of euros

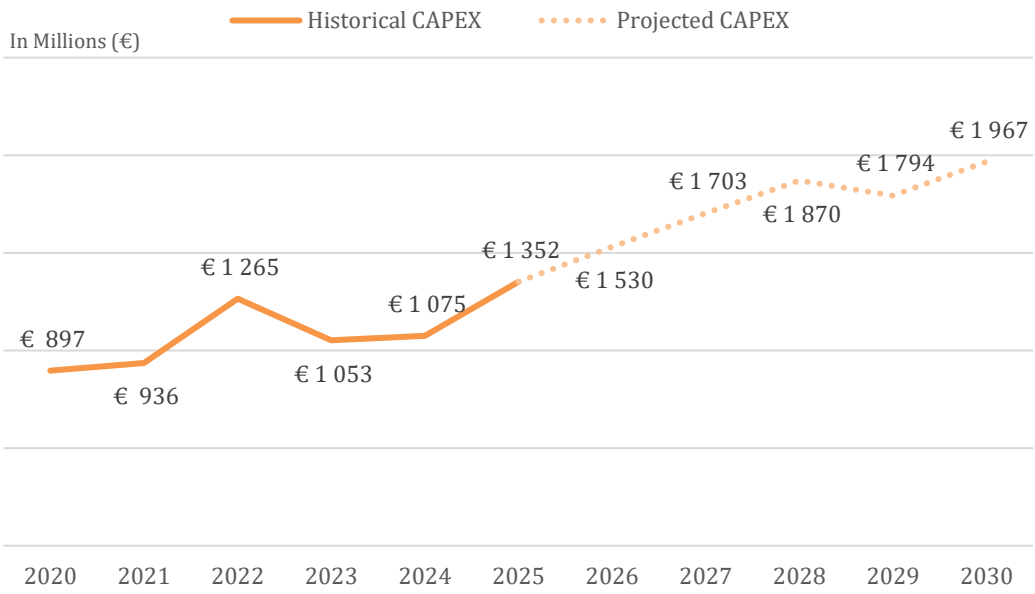

Figure 6 - CAPEX growth

3.7 WACC

Following the methodology outlined in Section 1 of this thesis, the Weighted Average Cost of Capital (WACC) is broken down into two components: the Cost of Equity and the Cost of Debt. While these components involve complex calculations, which will be discussed in the following subchapters, this section presents the final WACC result before explaining how the discount rate was derived. Note that tax shields are already calculated in the cost of debt so they are not displayed in the formula but are included in the calculation of the WACC.

The WACC was calculated using the following formula:

$$WACC = 71{,}6\% * 7{,}55\% + 28{,}4\% * 3{,}65\% = 6{,}44\%$$

3.7.1 Tax Rate

Tax rates are something very important to understand to value Galp because they affect the profitability of the firm but also it impacts on the premium required by shareholders and debtholders as it influences the rates of returns.

Taxes are especially high for Galp as they have upstream operations in countries like Namibia, Angola, and Brazil, each imposing distinct fiscal regimes (royalties, production levies, and special petroleum taxes). Also refining in Portugal faces industrial taxes and ESG-driven taxes aimed as the European Union has the goal to cut carbon emissions and sanction industries that actively contribute to the emissions. The commercial segment also faces fuel taxes and sales taxes respectively so after reviewing all this and company notes and financials on taxes, I determined that a constant 38.5% corporate tax rate is what I'll use to consider both taxes paid by the company in the forecasted period but also on Cost of Capital calculations.

3.7.2 Cost of Equity

I calculated the cost of equity by first determining the average beta of comparable firms used in the Relative Valuation model, which yielded an asset beta of 0.63. I then re-levered this beta using the debt-to-equity ratio from the final forecasted year (2030) as this model is forward looking which results in a D/E of 0,92. With a 38.5% tax rate, the resulting levered beta is 0.99.

For the risk-free rate, I selected the German 30-year Bund, commonly regarded as the most liquid and stable bond in Europe with a yield of 2,39%. To approximate the market return, I used the PSI-20's five-year annualized return of 7.58%. Applying the CAPM formula under these assumptions, the cost of equity comes out to 7.55% as seen in the formulas below.

$$\beta = 0{,}63 * [1 + (1 - 38{,}5\%) * 0{,}92] = 0{,}99$$

$$r_e = 2{,}39\% + (7{,}58\% - 2{,}39\%) \times 0{,}99 = 7{,}55\%$$

3.7.3 Cost of Debt

I estimated the cost of debt by first calculating the average debt balance and the average interest expense over the forecast horizon. Dividing the total interest by the total debt yielded a gross cost of debt. To incorporate the tax shield effect, I then multiplied this gross cost by (1 – 38,5%), resulting in a final cost of debt of 3.65%.

3.8 Terminal Value

I determined the terminal value, the point in the valuation at which the firm is assumed to enter a steady-state or "cruising speed". Using the Gordon Growth Model I took the final forecast year as the basis for perpetual cash flow, which I then divided by the difference between the WACC and a 1.8% perpetual growth rate. This 1.8% figure is my conservative take of the Euro zone inflation target which historically is 2% as well as it his Portugal's historical inflation rate. The resulting gross terminal value is subsequently discounted back to the present, contributing 81% of the firm's total value, while the explicit forecast period accounts for the remaining 19%. All computations seen in Table 8 show the forecasted periods FCF discounted to year-end 2025, Table 9 shows Terminal Value calculations and Enterprise Value. Table 10 shows all computations used to derive the price per share of Galp according to the model.

	2025e	2026e	2027e	2028e	2029e	2030e
Free Cash Flows	€658	€719	€817	€785	€1,122	€1,022
WACC	-	6,4%	6,4%	6,4%	6,4%	6,4%
Discount Factor	100%	93,9%	88,3%	82,9%	77,9%	73,2%
Present Value of FCF	**€658**	**€675**	**€721**	**€651**	**€874**	**€748**

Table 8 – Free Cash Flow Forecasting

Perpetual Growth Rate	1.8%
WACC	6.4%
Value of Perpetuity	€22,033
Discount Factor	69%
Value of Operations (Perpetual + 5-year valuation)	**€18,819**
Value of Excess Cash (2025)	€1,980
Value of Financial Investments (2025)	€472
Enterprise Value	**€21,271**

Table 9 - Enterprise Value Calculations

Debt Value	€4,760
Non-Controlling Interests	€794
Galp Energia, SGPS, S.A. Shareholders Value	**€15,716**
Number of Outstanding shares	753,49M
Equity value per share	**€ 20,86**
Current value per share (31st December 2024)	€ 15,95
Upside/downside	**30,8%**

Table 10 - Share Value computation

3.9 Relative Valuation

In my relative valuation approach, I focused on EV/EBITDA and P/E ratios, as these are among the most used multiples in practice and tend to capture market sentiment around both operational performance (through EBITDA) and earnings potential (through net income).

I began by identifying the set of comparable companies for Galp, focusing on European oil and gas firms with upstream, midstream, commercial, and renewables operations. Although some peers, such as BP and TotalEnergies, are much larger than Galp, they share similar value drivers. After selecting the firms BP, Repsol, TotalEnergies, and Eni, I obtained forward-looking estimates for EBITDA, EPS, Net Income, and share prices from Thomson Reuters Refinitiv Eikon, targeting December 31, 2024, for the share price. With other metrics I used the estimations of analysts regarding 2025 and 2026 outlook. For Galp, I used EBITDA and Net Income from my DCF model for those same years, ensuring a forward-looking multiples model.

Next, I computed each firm's EV/EBITDA and P/E ratios for 2025 and 2026, then took the average of these metrics across the peer group. This yielded an average EV/EBITDA multiple of 3.45 and an average P/E ratio of 9.45. Applying these multiples to Galp's 2030 figures resulted in a €11,01 per-share valuation via EV/EBITDA and €8,03 per-share valuation via P/E which was a surprisingly low estimate that indicates a more conservative outlook compared to the DCF results.

On the table below all computations are shown.

	EV/EBITDA	PE Ratio
Average of benchmark assets	**3,45**	**9,45**
EBITDA	€3,780	
Net Income		€640
Enterprise Value	**€13,053**	**€10,808**
Debt Value	€4,760	€4,760
Equity Value	**€8,293**	**€6,047**
Number of Shares (millions)	753	753
Price per Share	**€11,01**	**8,03€**
Current price per Share	€15,95	€15,95
Upside/Downside	**-31%**	**-49,7%**

Table 11 - Multiples Valuation

4. Investment Conclusion

In this section, I present the Final Valuation Decision regarding GALP Energia SGPS, S.A., based on the analysis conducted throughout this thesis.

After comparing Galp's intrinsic value from the DCF model with market indicators, I estimate a fair value of €20.86 per share, while its market price at 31 December 2024 was €15.95, implying a 30.8% upside potential. This suggests that Galp's stock is currently trading below its estimated intrinsic value and so my recommendation for the stock is BUY.

To further validate this result, I examined Refinitiv Eikon 18 analysts' coverage of Galp and a median price target of €20.00 and an average target of €20.44 were what they aimed which are figures aligned with my DCF conclusion. These findings indicate that my outlook for Galp's future performance is consistent with the broader market consensus.

The relative valuation using EV/EBITDA and P/E multiples yielded presents a more negative outlook but this discrepancy may be from short-term market

sentiment not fully capturing Galp's long-term growth drivers. As the Company's upstream expansions (Namibia, Bacalhau) and ongoing investments in refining and renewables begin to show results, I anticipate stronger operating results that may bridge the current gap between the market price and DCF-based fair value.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of my thesis, "Investment Case of GALP Energia SPGS, S.A.", The tool "Chat GPT" was used for the following tasks: Text Restructuring, Proof Reading and Data Analysis as a way to write a more professional and clearer way my thoughts throughout the thesis and to understand on deeper level all implications regarding forecasting of financial statements items. The prompts used are listed at the end of the document in the Prompts List section of the Abstract. After using this tool, I reviewed and edited the content as necessary, and I take full responsibility for the content of the work presented.

I also declare that I am aware of and respect the Artificial Intelligence Rules of Conduct of Católica Porto Business School.

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Appendices

Projected Balance Sheet

Table 4 - Pro-forma Balance Sheet		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Year	2024	2025	2026	2027	2028	2029	2030
Assets							
Financial assets	263	270	277	284	291	298	306
Tangible fixed assets	5 818	6 051	6 354	6 735	7 206	7 495	7 869
Total Intangible Assets	1 867	1 979	2 098	2 224	2 357	2 498	2 648
Other Non-Current Assets (Current Income tax recoverable)	852	887	923	961	1 001	1 042	1 085
Other Non-current Liabilities (other than debt)	3 014	3 422	3 885	4 412	5 009	5 688	6 458
Net Fixed Assets	**5 787**	**5 765**	**5 766**	**5 792**	**5 846**	**5 646**	**5 450**
Accounts receivables	1 961	1 722	1 723	1 792	1 864	1 976	2 055
Other receivables	803	777	778	809	842	892	928
Accounts payables	1 024	940	941	979	1 018	1 079	1 122
Other payables	1 777	1 582	1 584	1 647	1 713	1 816	1 888
Inventories[1]	1 146	1 097	1 098	1 142	1 188	1 259	1 309
Cash and equivalents	2 126	1 980	1 982	2 061	2 144	2 273	2 363
Working Capital, Cash, and Cash Equivalents	**3 236**	**3 054**	**3 057**	**3 179**	**3 307**	**3 505**	**3 645**
Non-current assets held for sale	1 510	201	202	210	218	231	240
Adjusted Assets	**10 533**	**9 021**	**9 025**	**9 181**	**9 371**	**9 382**	**9 336**
Equity and Debt							
Share capital	773	753	753	753	753	753	753
Treasury Shares and Buybacks	(267)	-	-	-	-	-	-
Share premium	-	-	-	-	-	-	-
Reserves	1 583	-	-	-	-	-	-
Retained earnings	1 636	2 133	2 403	2 608	2 827	3 032	3 302
Net income	835	580	531	558	581	644	640
Galp Energia, SGPS, S.A. Shareholders	4 560	3 466	3 687	3 920	4 161	4 429	4 695
Non-controlling interests	919	794	795	808	825	826	822
Total equity	**5 480**	**4 261**	**4 482**	**4 728**	**4 986**	**5 255**	**5 518**
Long-Term Debt	4 234	3 988	3 806	3 731	3 673	3 457	3 199
Short-Term Debt	819	772	737	722	711	669	619
Total Debt	**5 053**	**4 760**	**4 543**	**4 453**	**4 384**	**4 127**	**3 818**
Invested Capital	**10 533**	**9 021**	**9 025**	**9 181**	**9 371**	**9 382**	**9 336**

Projected Income Statement

	Revenues	**20 146**	**20 166**	**20 972**	**21 811**	**23 120**	**24 045**
Inventories consumed and sold		14 706	14 701	15 268	15 879	16 808	17 481
Materials and services consumed		1 852	1 854	1 867	1 898	1 988	2 044
Personnel costs		393	394	419	436	462	481
Other operating costs		218	218	227	236	250	260
	EBITDA	**2 976**	**2 999**	**3 192**	**3 363**	**3 611**	**3 780**
Depreciation, Amortisation and Impairments		1 007	1 109	1 195	1 265	1 364	1 443
Provisions		41	41	43	45	48	49
	EBIT	**1 927**	**1 848**	**1 953**	**2 053**	**2 200**	**2 288**
Interest Income		20	20	21	22	23	24
Interest expenses		705	706	755	807	832	914
	Income Before Taxes	**1 242**	**1 163**	**1 219**	**1 268**	**1 390**	**1 398**
Total Taxes		478	448	469	488	535	538
	Income before non-controlling interests	**764**	**715**	**750**	**780**	**855**	**860**
Income attributable to non-controlling interests		184	184	192	199	211	220
	Net income	**580**	**531**	**558**	**581**	**644**	**640**

Projected Cash Flow Statement

Table 6 - Free Cash Flows Map for the explicit forecast period	0	1	2	3	4	5
Item	2025	2026	2027	2028	2029	2030
Operating Income (EBIT)	**1 927**	**1 848**	**1 953**	**2 053**	**2 200**	**2 288**
Tax on EBIT	742	712	752	791	847	881
Amortisation, depreciation and impairments	1 007	1 109	1 195	1 265	1 364	1 443
Gross Cash Flow	**2 193**	**2 246**	**2 397**	**2 528**	**2 717**	**2 850**
Change in inventories	(49)	1	44	46	71	50
Change in accounts receivable	(266)	2	100	104	162	115
Change in accouts payable	(279)	3	101	105	164	116
Change in cash and cash equivalents	(146)	2	79	82	129	91
Change in Working Capital and Cash	**(182)**	**3**	**122**	**127**	**198**	**140**
CAPEX	1 352	1 530	1 703	1 870	1 794	1 967
FREE CASH FLOW	**658**	**719**	**817**	**785**	**1 122**	**1 022**
FREE CASH FLOW TOTAL	**658**	**719**	**817**	**785**	**1 122**	**1 022**
WACC		6,4%	6,4%	6,4%	6,4%	6,4%
Discount factor		93,9%	88,3%	82,9%	77,9%	73,2%
Present value of FCF (next 5 years)	**3 669**	**675**	**721**	**651**	**874**	**748**

Projected Multiples Valuation

Relative valuation - Data	Next 12 Months												
Country	PT		IT		GB		ES		FR				
Multiples	GALP		Eni		BP		Repsol		TotalEnergies		Average		
Year	EV/EBITDA	PE Ratio	EV/EBITDA	PE Ratio	EV/EBITDA	PE Ratio	EV/EBITDA	PE Ratio	EV/EBITDA	PE Ratio	EV/EBITDA	PE Ratio	**Year**
2025	3,54	20,73	3,51	7,27	3,37	7,20	2,92	5,17	4,10	6,65	3,49	9,40	2025
2026	3,51	22,64	3,52	6,78	3,27	6,78	2,73	4,57	4,06	6,70	3,42	9,50	2026
	GALP		Eni		BP		Repsol		TotalEnergies		**3,45**	**9,45**	
Year	**2 025**	**2 026**	**2 025**	**2 026**	**2 025**	**2 026**	**2 025**	**2 026**	**2 025**	**2 026**			
EPS	0,77	0,70	1,80	1,93	0,66	0,70	2,26	2,56	8,03	7,96	**Source: Refinitiv Eikon**		
EV	10 533	10 533	65 690	65 690	126 030	126 030	22 360	22 360	166 750	166 750	**Source: Refinitiv Eikon**		
EBITDA	2 976	2 999	18 740	18 670	37 370	38 510	7 670	8 180	40 650	41 050	**Source: Refinitiv Eikon**		
Price (31st December, 2024)	€ 15,95	€ 15,95	€ 13,09	€ 13,09	€ 4,75	€ 4,75	€ 11,69	€ 11,69	€ 53,37	€ 53,37	**Source: Refinitiv Eikon**		

Relative valuation		
	EV/EBITDA	**P/E Ratio**
Average of benchmark assets	**3,45**	**9,45**
EBITDA	3 780	
Net Income		640
Value of operations €m	**EV/EBITDA**	**P/E Ratio**
Enterprise value	13 053	10 808
Debt value	4 760	4 760
Equity value	**8 293**	**6 047**
Number of shares (millions)	753	753
Price per Share	€ 11,01	€ 8,03
Current value per share (Date)	€ 15,95	€ 15,95
Upside/downside	-31,0%	-49,7%

Prompt List:

i have this text and want you to proofread and suggest a more clean and understandable flow: "Following the methodology mentioned in section 1 of the thesis, the WACC breakdown into the two components: Cost of Equity and Cost of Debt. These components are more complex and are the subject of the following subchapters but here I want to display the result and after discusse how I derived the WACC discount rate The wacc was computed by the following form"
Proofread this text and rate it based on understandability and if it has a clear rationelle, grammar: "Depreciation and Amortization (D&A) are non-cash expenses that allocate the cost of tangible and intangible assets over their useful lives, capturing the consumption of the assets' economic value during business operations. Galp, due to the nature of the business they operate in, has capital intensive activities such as upstream exploration, production and refining which is reflected in the high D&A rates as shown on the table below"
Is this right in terms of current grammar and if not suggest a correction and also is the content correct academically speaking or could I add something that makes it more clear? "I examine Galp's Cost of Sales a key element in understanding the firms profitability and efficiency. Under IFRS reporting, COS captures the direct expenses associated with producing, acquiring, and delivering goods to customers and they are reported by

galp as raw and subsidiary materials, goods purchased for resale, relevant taxes, changes in production inventories, and certain derivative and exchange-rate effects.”
Can I assume in a DCF, a stable and consistent projection of COS if historically it has been so.
Correct this grammar and suggest a cleaner alternative: “Over the period from 2020 to 2024, Galp's revenue is dependent on the upstream segment, which contributes approximately 73% of total revenuesand the commercial segment accounts for about 7%, industrial and midstream activities represent 18%, and the renewables segment remains a minor contributor at just 1%.”
Is this a good intro to a section of a thesis: “In this section, I present the valuation results and the forecasting assumptions for Galp, with the aim of determining whether the company is overvalued or undervalued. The valuation reference period is year-end 2025 and the reference market price is €15,95 as of 31st of December 2024. The results are based on a detailed financial analysis that employs established methodologies to assess Galp's current market position. The forecasting assumptions are based on historical performance data, industry trends, the general macroeconomic landscape and my interpretation of management’s plan. Also, the forecasted period in my analysis is 5 years which after that, I assume a constant growth of the firm till perpetuity using Gordon’s Model to compute the terminal value.”
How can I improve this text: “Valuation is a fundamental concept in finance, economics, and investment decision-making, serving as the base for asset pricing

and corporate strategy. Foundational works such as Fisher's The Theory of Interest (1930) introduced the concept of the time value of money, establishing a cornerstone for subsequent valuation models. The Modigliani-Miller theorem (1958) marked a change in corporate finance by challenging the traditional belief that a firm's capital structure—its mix of debt and equity financing—directly influences its overall value. Their work demonstrated that, under a set of idealized conditions, including perfect markets, no taxes, no transaction costs, and symmetric information, the value of a firm is irrelevant to its capital structure."
Rate this and suggest changes in the text: "The Weighted Average Cost of Capital (WACC) is a fundamental concept in corporate finance and valuation, serving as an important measure of a company's cost of capital which is the average rate of return that a company is expected to provide its investors—both equity holders and debt holders—to compensate them for the risks associated with their investment. WACC is calculated as a weighted average of the cost of equity and the after-tax cost of debt, with the respective weights reflecting the proportion of equity and debt in the company's capital structure. "
Proofread the annexed document and suggest changes
What are the regulatory frameworks that impact an oil company.
What is the "Fit for 55" deal?
Is this a concise and clear paragraph and suggest what I can add to make a better argument "In Europe, regulatory frameworks and sustainability policies have placed additional pressure on traditional energy firms. The

“European Green Deal” and the “Fit for 55” regulations aim to achieve carbon neutrality by 2050, mandating strict emissions reductions and promoting investment in renewable energy, hydrogen, and carbon capture technologies.”
Here is the sustainability report of GALP, what are the major talking points and how can I incorporate this in an ESG chapter for my thesis about the firm
i am writing a thesis for investment decision in an oil company, write a small phrase explain the concept so people in finance can understand about topics such as oil porosity and in general an idea of how oil wells work
wells which the presence of light oil and positive characteristics of the reservoir in terms of porosity and permeability mske better extration and processing?
"When valuing firms using the DCF model, capital structure is very important as it serves as the base line for " what i want to say above is that the wacc which is very important in the overall value of the firm is reliant in the capital structure of the firm because it is used in the cost of equity to determine the D/E ratio of the firm and cost of debt because it uses the future value of the debt and interest paid. When i say future is the last year of valuation
I have this text below and i want you to help me add a verse explaining briefly the different DCF models like FCFE, CAPV, APV and CCF. like ones are usefull to see the equity value. and use this selecion model in the text if appropriate: Discounted Cash Flow Model is a method used in Valuation and Corporate Finance to determine the fair value of assets or firms by forecasting future cashflows and discounting them to the present with a discount rate called cost of capital. As the (real) economic life of the asset can be very high (or unlimited), cash flows are usually estimated for a limited period of time. After that, the residual value is

estimated assuming that cash flows are in steady state at the end of the planning period. There is a family of DCF models, that diverge between them based on their focus of valuation (enterprise or equity) and the way financing and investing decisions interact. The mostly used DCF model in corporate finance is the Free Cash Flow to the Firm (FCFF), which is focused on enterprise valuation and where financing decisions are exclusively considered in the estimated cost of capital (and not in the cash flow metric). In this dissertation we use the FCFF.
to compute the wacc on a dcf i should use the mkt value of equity?
what does it mean to use in wacc, the projected values of debt and interest?
Are TotalEnergie, BP, Repsol, Eni good comparable firms what are theire value drivers. Do they have up, mid and downstream segments like galp?
How to check on refinitv eikon the projected EBITDA, Net Income of firms by analysts
What can you tell me abou this report from galp? name if you can the pages where youre getting info
i have this comment on the part about working capital. can you deconstruct it for me? Can you explore a but the underlying rational is terms of commercial policy with clients and expected relation with suppliers…?
i have this comment on the part about working cpaital. can you deconstruct it for me? Can you explore a but the underlying rational is terms of commercial policy with clients and expected relation with suppliers…?

what description would you give this figure in a thesis
Need to elaborate on how you estimate equity beta, considering the target capital structure.