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Analyst Coverage Report for
GALP ENERGIA, SGPS, S.A.

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Abstract

The present report aims to facilitate investment decisions into Galps Energia SGPS, S.A., a major international oil and gas company, based out of Portugal and listed in the Lisbon Euronext Lisbon stock exchange. This report provides a position recommendation on the company's shares.

This report is part of the Galp Energia SGPS, S.A. report (annexed), developed by Roberto Igrejas Lopes Martins Costa and Alexandre Costa Melo and should be read has an integral part of it.

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Introduction

Galp Energia SGPS, S.A. (hereinafter referred to as "**Galp**" or the "**Company**") is a large Portuguese company operating heavily in oil and gas exploration, production, refining and distribution. The Company is very active in Brazil with participation in multiple oil fields across several basins, including at the pre-salt level. In addition to its operations in traditional oil and gas, Galp has been taking a proactive approach to setting the benchmark for sustainability in the energy sector through commitments towards initiatives aimed at reducing its own carbon footprint, renewable energy and the advancement of new technologies. This endeavor in promoting green energy is part of Galp's long term strategy, especially with regards to green hydrogen production and commercialization – a relatively new space with huge market potential, but for which the market is at its technological frontier.

In light of the changing global landscape in the energy sector and the differing strategies employed by Galp, this report aim to elaborate a financial model which had the necessary and adequate information with regards to the company's performance, objectives and focus. It also provides the reader with a recommendation on whether to further invest into the Company through share purchases, after providing a detailed forecast and offering a variety of valuation methods to validate its recommendation to **BUY** the Company's stock to take advantage of a substantial return on investment in one year's time.

The report is structured in four main parts: an overview of Galp's activities and business segments; a short literary review on the market and the Company's insertion into it; a description of the main assumptions and drivers of the forecast and the financial model; and a conclusion which summarizes the findings of the model and explains the **BUY** recommendation in more detail.

This individual report will cover the last two topics, apart from the Multiples Valuation – which was left to my colleague to balance out the lengths of the reports. My colleague's individual report will cover more macroeconomic topics and broad overviews of the market and the company whereas this report will rather focus on the thought process behind the financial model prepared and provided in annex for review. This part of the joint report will serve at the same time as support to navigate through the model, by providing the explanations behind every assumption made, and as a translator of the conclusions of the model, such that the information contained herein can be understood by the layman.

Report analysis

Overview

The final purpose of this report being to offer an investment recommendation for current and prospective Galp shareholders, the preparation of a financial model is mandatory to price the stock, based on the Company's past performance and its investment focus for the years to come. Therefore, the model takes into strong consideration the information contained in the Company's published annual reports – financial data as well as comments and clarifications on managers' perspective.

For the sake of completeness, in addition to the annual reports, quarterly data were also extracted and used to compensate for the lack of available data for the year 2022. This reduces the margin of error since it reduces the extent speculation by shortening the gap between the reported data and the projections – the valuation is taking place at year-end 2022 and the only missing information pertains to the fourth quarter and speculating on the past three quarters is counter-productive. As a result, this increases the accuracy of the model and the trustworthiness of the results.

Reformulation

This report will base most of its decisions on valuation methods based on cash flow discounting. In order to estimate useable Free Cash Flow ("**FCF**") predictions that are appropriate to prepare for the Company's valuation, it is important to first establish a distinction between its core and non-core businesses, which will have different effects on the Company's activities in the futures. Therefore, the income statement and balance sheet were re-organized to group line items according to their importance to Galp's main business segments.

In this stage, it is crucial to properly separate all that refers to the Company's external sources of funding – i.e., debt and equity financing. This will uncover the Company's capacity to generate cash without having to resort to debt and ignore the negative impact of interest payments on the income statement. Then, for the reasons above, removing the non-core business activities from the Company's main core focus is beneficial for a more in-depth analysis of its operations.

For instance, results deriving from Galp's activity in financial assets and instruments are not directly linked to its capacity to explore and sell energy from fossil or renewable sources, and the Company's performance in such markets should be valued separately. Thus, this valuation can easily be adjusted in case the Company decides to change its strategies with regards to these non-core activities.

Forecasting Assumptions

▪ General assumptions

As previously mentioned, the fiscal year in which the valuation takes place is ongoing, and special assumptions must be made for 2022. The authors have opted to project the trend from past three or four quarters into the last trimester of the year, which should provide an accurate prediction of the Company's performance.

Upon a first look at the model, the length of the forecasting period becomes quite noticeable. This is due to the importance of the targets that were set to meet the UN's Sustainable Development Goals for 2030 and the European Green Deal for 2050, and Galp's proactivity in implementing new businesses to adjust to the expectations of a net-zero economy. Since this approach from the Company will require substantial investments, which will, in turn, take time to turn operational, this delay in the start of the perpetuity becomes necessary.

Also, it is noteworthy that each line item has its own set of assumptions (further detailed below), most of which are based on a ratio such as percentage of revenues, for instance. This is helpful since many line items are sensitive to revenue or costs.

In the preparation of this report, the most common way of keeping line items constant is by taking the rolling averages from the previous three or four years, depending on the availability of data. This has a stabilizing effect on the values in the long term, while keeping a certain natural (minimal) volatility in the short term. Taking this approach is more realistic than using a fixed average, which would eliminate unpredictability in the cash flows completely.

- Market indicators

Some market indicators are made available from the Company through the quarterly reports, which aid in accurately matching exogenous market factors with the data. This is important since Galp's activities are reliant on those external factors.

Therefore, this data must be forecasted using readily available data, like the current futures quotes, or by assuming they will maintain a certain level. The former is used for exchange rate and commodity price predictions, and the latter for all the remaining predictors and value drivers.

In addition to the market indicators included by the Company in its reports, another factor with considerable and increasingly important prediction capacity was extracted from another source – the expected average electricity prices in the EU. This information was taken from the EU Reference Scenario 2020, published July 2021 by the European Union Publications Office, which offers a broad estimate of the evolution of electricity price every ten years from 2020 to 2050. To report this trend in a yearly basis, the Compounded Annual Growth Rate ("**CAGR**") was calculated.

- Commodity price expectations

Given the industry in which Galp operates, the model uses Brent and Dutch TTF as price indicators for oil and gas, respectively. Due to the inherent volatility of those markets, this report assumes the current Brent and Dutch TTF futures quotes (extracted from CME Group website) to be adequate predictors for future spot rates for oil and natural gas. This assumption allows the use of those figures to predict movements in the value drivers of the Company's business segments.

- Currency expectations

Similarly, the future values of USD:EUR and USD:BRL exchange rates are based on the current Euro FX Futures quotes (also extracted from CME Group website) – as an adequate predictor for future spot rates. These figures are used to adjust the convert Brent prices from USD to EUR, which is the currency used in the model. Thus, the model uses the adjusted expected prices of Brent oil as a variable for the main value drivers of growth.

- Value drivers for revenues

In order to most accurately predict fluctuations in total revenues, the revenues from each business segment were analysed separately. Only then can the most relevant operational data and market indicators be identified, such that they become reliable predictors, or value drivers. Each value driver takes into account internal operational factors as well as exogenous market-driven effects, such as market price of oil and gas as well as the expected fluctuation of currency.

These value drivers incorporate several more intricate and precisely tuned assumptions that have a direct effect on the top line of the operational model. Each segment then provides what is referred to in the model as an an **Equalization Factor**, which is essentially a multiplier used to bridge the gap between the value drivers and its respective segment's revenue.

- Upstream

The Upstream activity refers to the production of oil and gas through the exploration oil and gas assets and fields. Thus, the overall production of the commodities is forecasted using appropriate yearly growth rates and used as a measure of activity. Overall, the revenues from Upstream activity can be taken as a product of the production, market prices and the Equalization Factor.

- Industrial & Energy Management

This business segment refers to refining, gaseous and liquified natural gas trading, and electricity cogeneration activities engaged by the Company. The refining business is expected to evolve in tandem with the oil production, while trading is projected to maintain a constant level. A strong initial increase followed by a progressive tapering of growth in the sale of electricity are expected, due to high expectations for the electricity market.

- Commercial

Revenues in the commercial business derive from sales point for oil products, natural gas, and electricity. Like the refining business, oil products sold can be expected to track the production of oil. On the other hand, natural gas has become a crucial market since the Russia-Ukraine war, and a strong shift toward European producers and sellers can be expected – which is why a consistently strong growth can be foreseen in the next few years. Electricity sale also has a substantial potential for growth, especially when considering the positive market sentiment towards alternatives to oil and natural gas derivatives.

- Renewables & New Businesses

The renewables business is critical to the Company's revenue forecast, given the strong push towards clean energy. Considering Galp's focus in exploiting this change in market preferences, especially the Company's ambitions to lead the green hydrogen space in Iberia, one can expect for a very steep increase in activity, and for a persistent strong growth for a few years.

- Consolidation Adjustments

The sole purpose of this item is to adjust for redundancies during consolidation. Therefore, the three-year rolling average will suffice for stabilizing it for the forecasted period.

- Other assumptions

Accurately forecasting the cash flows requires many assumptions which are specific to each line item in the financial statements.

- Operating Cash

Operating cash is estimated to be 5% of Capital Assets, which, for Galp, serve as a better proxy operating cash than revenues because the latter is more susceptible to commodity market volatility, while the business is very capital intensive. Thus, one can assume that the cash necessary for operations will increase jointly with the increase in PPE.

- Capital Assets

The capital assets are separated by type: tangible assets, intangible assets, and leases. Since the Company's activities are highly capital-intensive, most of the movements will occur within tangible assets, while the other two are held constant for the forecast.

The forecast is based on a value-driven investment case, which relies on a clear capital allocation framework – the Company will be allocating around 50% of its net investments in the 2021-25 period towards low-to-no-carbon activities. This means special attention must be given to the additions to tangible assets, which can be expected to increase substantially from 2023 until 2030 to meet the EU's targets, before stabilizing. Level of capex investments were not considerable in 2022 because of a focus on accumulating cash. It is also noteworthy that the level of depreciation must also accompany this strong capex.

Another important factor is the "currency exchange differences and other adjustments" line. There is positive relationship between this line item and the increase in revenue from the previous year. This is due to the expectations made during budgeting, which must be revised downwards in case of a decrease in revenue and upwards if revenues increase more than expected. The observed relationship was kept on a constant level during forecasting.

Also, it is noticeable that "lease liabilities", a line item from the statement of financial position, are kept as a function of right-of-use assets.

- Associates and Joint Ventures

Associates and joint ventures are investments Galp has made in other companies within the sector – either holding a minority or majority stake and with varied control over their respective activities.

The companies contained within this specific line item operate in the same sectors as Galp, and one could assume the value of those investments would vary somewhat closely to the variations in revenue, which is why total revenues are used to gauge the evolution of those figures throughout the forecast.

Given the availability of information regarding net debt and the cash balance by the end of the third quarter, one line item had to be adjusted such that the predicted cash flows do not generate an excess of cash, which would be conflicting with the expected net debt balance. This responsibility would befall on the book value of Associates and Joint Ventures, which, consequently, has a particularly important role for the last quarter of 2022.

- Working Capital

The cash conversion cycle is central to predicting movements in working capital. Keeping the average holding, collection and payable periods constant allow for a natural adjustment of the inventories, accounts receivables and accounts payable, based on revenues and cost of goods sold.

Adjustments must also be made with regards to other receivables and other payables, which relate to non-core activities.

- Financial

Financial assets and liabilities all refer to non-core activities and, as such, were kept consistent. The same goes for all financial income and expenses, excluding interest on debt and results from derivative financial instruments.

The interest is calculated by using the cost of debt (see Discount rate) as the interest rate. Since derivatives are widely used for hedging purposes, one can assume that the movements in derivative instruments will, on average, cancel each other out, resulting in a net zero effect on the income statement.

- Debt

Due to the high capital intensity of the business, loans and bonds are predicted to track movements in PPE, while origination fees and bank overdrafts are disregarded.

- Taxes

The statutory tax rate for Galp is 31.5%, as per its annual statements. However, due to its operations in Brazil and Angola, it must pay other taxes. Among these are: the 50% charge on the Angolan projects' "profit oil" (IRP); the Special Participation Tax (SPT) for its activities in oil exploration in Brazil; and the Energy Sector Extraordinary Contribution (CESE). The "profit oil" and SPT track the revenues from upstream activity, while CESE, other adjustments and deferred taxes can be considered constant.

Income tax receivable and payable balances are removed completely for the model, due to their minor importance and to the impracticality in estimating such figures.

- Provisions and Derivative Instruments

The provisions are the set of expected liabilities that the business will owe and need to cover in the future. All provisions are estimated to maintain a relatively constant level throughout the forecasting period.

Derivative instruments are useful for O&G companies since they allow continual hedging and provide support for the businesses' main activities. Given their stabilizing effect, these are also expected to remain constant.

- Share Capital and Non-Controlling Interest

According to Galps' 2021 annual report, base dividend payments to its shareholders are expected to increase 4% annually from 2022 onwards. Notwithstanding, the maximum amount paid out to shareholders is the equivalent of one third of its Operational Cash Flows ("**OCF**"), and the Company expects those levels to be achieved in the following years.

Dividends paid out to non-controlling interest are projected in the model to maintain consistency and are expected to be fully paid and without deferral.

Currency translation reserves and share capital decrease are not forecasted in the model, since they are not deemed to materially affect the Company, based on its plans for the conceivable future.

- Revenues, Costs and Expenses

In addition to revenues from the business segments detailed above, there is another portion of the total revenues that relates to other, non-core revenues. These include Galp's revenues from a reinsurance business and a provider of shared services at a corporate level.

Regardless of having forecasted the total revenues from each business segment, it can be useful to acknowledge the proportion of revenues from services and sales, which have consistently been between 3 and 5 percent.

Also, in addition to total revenues, there are other operating incomes, which tend to follow the trend of sales and services.

With regards to the earnings from Associates and Joint Ventures, which registered in the income statement, the rolling 3-year average was used for the forecasting period, since no direct relation could be found between this income statement item with the values registered for associates and joint ventures in the balance sheet and there is no clear utility in predicting any drastic movement in this line item for the future.

Employee costs depend heavily on the previous year's activity, which is why it was estimated as a percentage of the previous year's total revenues.

Valuation

After having reformulated the financial statements and estimated the cash flows for the forecasting period, all that's left is applying different valuation methods to reach an admissible share price, upon which the recommendations can be made.

An important consideration to make is that Galp's Enterprise Value ("**EV**") does not include the Company's net debt. Therefore, it is crucial to subtract the debt or cash balance, when applicable, to attain the value of equity.

Adjusted Present Value

The Adjusted Present Value ("**APV**") method values each component of the Company individually and aggregates those to reach a final value for the business. This method is especially useful when the debt levels are pre-defined because the present value of the interest tax shields can easily be estimated.

▪ Discount Rate

Using the appropriate rate to calculate the Terminal Value (TV) – which encapsules all future cash flows in perpetuity for the Company – and to discount the cash flows during the forecasting period is essential to the accuracy of the model.

The APV method will only require the use of the unlevered cost of capital and the cost of debt to calculate a reliable equity value, which is why it is central in the valuation process – it allows for a more accurate estimation of the other discount factors.

The above-mentioned cost of debt was found by looking at the yield to maturity of Galp's 6-year bonds maturing 2026 paying 2% coupons and estimating the Company's risk of default. On the other hand, the calculating the unlevered cost of capital is a more complex and will require calculating the Company's unlevered beta, obtained indirectly through the Bloomberg Terminal, and the risk-free rate. The latter must be the rate on a developed large country's sovereign debt,

since it must bear very low risk while maintaining high liquidity. The rate commonly applied to European companies with cash flows in Euros is the German Bund 10-year yield since it satisfies those requirements.

Also, given how the unlevered beta is a weighted average of the Company's debt and levered betas. the current market capitalization of the stock was the measure for equity used in the calculations. The Market Risk Premium ("**MRP**") was established such that the current WACC (using readily available market data) equates to the median level for global integrated O&G companies of 7.95%.

- Methodology

The APV valuation method is based on identifying and separating the individual components to be valued. In addition to the core and non-core FCFs, interest tax shields were also included as a supplemental element.

The unlevered FCF for both the core and non-core business assume a perpetual growth rate equal to the expected inflation in the European Union for 2027. This value is in line with the previous growth rates expected for the end of the forecasting period in the case of the core business activities and is close to the CAGR for the non-core FCFs. The discount rate used is the unlevered cost of equity.

The only component of the APV that will use a different discount rate is the valuation of the present value of tax shields. These will be discounted at cost of debt and will grow at the same rate as the core business FCFs, since it assumes a constant debt-to-equity ratio for the perpetuity. It is worthwhile to note that the discount rate for the terminal value increases due to the higher risk associated to fixing the debt to the equity and will therefore move closer to the unlevered cost of capital.

Also, for the purpose of this valuation, it is assumed that the book value of debt is registered at fair value since it inherently incorporates risk.

- Result

The APV method values Galp's equity at EUR 10.5 billion and its stock at **12.66 €** per share.

- Sensitivity analysis

A sensitivity analysis was done to assess the effects on the per share price of the stock of the MRP and the core FCF perpetual growth rate. For the former, the range studied was from 6.50% to 8.50%, with increments of 0.25%, and latter spans from 1.00% to 3.00%.

Rather than assessing the sensitivity of the price to the discount rate, this analysis takes uses the MRP, which is an important variable in the estimation of the unlevered cost of capital. However, to evaluate the appropriateness of the use of this particular range of MRP, each input value was translated into the costs of debt, equity and capital. This validated the sensitivity above since the implied discount rates fit within an acceptable interval.

For comparison purposes, the rates used in the main model were illustrated alongside the values calculated.

Table 1 - Sensitivity Analysis

Sensitivity of Share Price to MRP and perpetual core FCF growth

		MRP						
		6.50%	7.00%	7.25%	7.50%	7.75%	8.00%	8.50%
FCF g	1.00%	12.27 €	11.46 €	11.09 €	10.74 €	10.40 €	10.09 €	9.50 €
	1.50%	12.90 €	12.02 €	11.61 €	11.23 €	10.87 €	10.53 €	9.90 €
	1.67%	13.13 €	12.22 €	11.81 €	11.41 €	11.04 €	10.69 €	10.05 €
	1.83%	13.38 €	12.44 €	12.01 €	11.60 €	11.22 €	10.87 €	10.20 €
	2.00%	13.64 €	12.66 €	12.22 €	11.81 €	11.41 €	11.04 €	10.36 €
	2.50%	14.52 €	13.43 €	12.94 €	12.48 €	12.05 €	11.64 €	10.90 €
	3.00%	15.59 €	14.34 €	13.79 €	13.27 €	12.79 €	12.34 €	11.52 €

Table 2 - Conversion Table

Conversion table

MRP	7.27%	6.50%	7.00%	7.25%	7.50%	7.75%	8.00%	8.50%
R_f	1.91%	1.91%	1.91%	1.91%	1.91%	1.91%	1.91%	1.91%
Beta debt	0.31	0.35	0.33	0.31	0.30	0.29	0.28	0.27
Beta levered	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Beta unlevered	0.89	0.90	0.89	0.89	0.88	0.88	0.88	0.87
R_d	4.19%	4.19%	4.19%	4.19%	4.19%	4.19%	4.19%	4.19%
R_e	10.12%	9.26%	9.82%	10.10%	10.39%	10.67%	10.95%	11.52%
R_u	8.34%	7.74%	8.13%	8.33%	8.53%	8.73%	8.93%	9.32%

Source II: Own Valuation Model

Flow to Equity

The Flow to Equity ("**FTE**") method values to equity cash flows – i.e. the transactions between the Company and its shareholders.

- Discount Rate

For the FTE method, the cost of equity will be the appropriate rate to discount the cash flows paid out and received from equity holders – this rate will be implied from the APV calculations. The Terminal Value assumes a constant debt-to-equity ratio in perpetuity, hence the cost of equity $r_E = r_U + \frac{D}{E} * (r_U - r_D)$. On the other hand, the forecasting period predicts movements in debt balance and the effect of tax advantages from contracting debt will vary based on the leverage ratio, hence the cost of equity used is $r_E = r_U + \frac{D-PVTS}{E} * (r_U - r_D)$, where PVTS refers to the present value of tax shields – which, in turn, were discounted at the cost of debt.

- Methodology

Due to the clear policy and the guidelines provided by Galp regarding dividend distribution strategy, the present model assumes Galp will adhere to the growth expectations for the base dividend perpetually.

Since it is expected that Galp distribute up to one third of the OCF, for which core EBITDA is used as an acceptable proxy after deducting the Company's total tax expenses. The present model assumes Galp will be able to successfully deleverage while investing in accordance with its growth strategy and assumes the managers' priorities lie first and foremost with its focus on expanding renewables and hydrogen in time for the 2030 targets, but its activities are solid enough to avoid sacrificing the expected dividend payments.

The perpetual growth rate of these flows is expected to steady at the predicted growth rate for the base dividends.

- Result

The FTE method values Galp's equity at EUR 10.4 billion and its stock at **12.51 €** per share. It is noteworthy that the FTE method does not require any consideration towards debt, but cash is still an asset that add value to equity holders and must be included.

Discounted Cash Flow

The Discounted Cash Flow ("**DCF**") method is a very common way of conducting the valuation of a company or project, due to its simplicity in incorporating the effects of leverage into its discount rate.

- Discount Rate

The DCF requires the use of the Weighted Average Cost of Capital (WACC) to discount the unlevered FCF, and $WACC = r_D * \frac{D}{D+E} * (1 - t_C) + r_E * \frac{E}{D+E}$ – where r_D is the cost of debt estimated in the unlevered cost of capital calculations, r_E is the cost of equity calculated for the ECF, t_C is the statutory tax rate, and D and E are the fair values for debt and equity, respectively.

The book value of equity does not behave in the same manner as debt, which is why it's necessary to use a proxy. The proxy used for the fair value of equity value was the current market of Galp equity value calculated using the APV method. This is necessary because the APV will

allow for the calculation of the equity cost of capital, based on the leverage ratio attained from having calculated the fair value of equity. It is also preferrable to taking the current market capitalization of the Company because the leverage ratio is not fixed throughout the forecasting period and, since the debt-to-equity must be recalculated each year, it is necessary to have an up-to-date fair value of equity – which is not reflected in the current market capitalization.

- ▪ Methodology

A DCF valuation is convenient when assuming a constant debt-to-equity ratio, since the method does not require the added trouble of valuing the interest tax shields explicitly. Instead, this tax advantage is incorporated in the WACC, so the Company's EV is calculated directly from the unlevered FCF.

- ▪ Result

The DCF method values Galp's equity at EUR 10.5 billion and its stock at **12.66 €** per share.

Conclusions

Table – Valuation

Financials	2022	2023
Cash Flow-based Valuations		
APV Valuation	12.66 €	12.73 €
	7.4%	*8.0%*
FTE Valuation	12.51 €	12.53 €
	6.1%	*6.3%*
DCF Valuation	12.66 €	11.24 €
	7.4%	*-4.7%*
Multiples Valuations (Median)		
EV/EBITDA	15.90 €	14.39 €
	34.9%	*22.1%*
EV/EBIT	16.15 €	13.10 €
	37.0%	*11.1%*
P/E	15.15 €	8.41 €
	28.5%	*-28.6%*
Multiples Valuations (Mean)		
EV/EBITDA	19.46 €	17.84 €
	65.0%	*51.3%*
EV/EBIT	22.92 €	19.09 €
	94.4%	*61.9%*
P/E	16.79 €	9.32 €
	42.4%	*-20.9%*

Financials	2022E	2023F
Current Price	11.79 €	
Valuation	12.66 €	12.73 €
Dividends per share	- €	0.74 €
ROI	7.4%	14.3%
ROE	51%	27%
Core ROIC	28.78%	14.19%

The APV and DCF methods value Galp's share at **12.66 €** as of year-end 2022 – i.e., at a 7.4% premium in comparison to the current market price of the stock, which is trading at **11.79 €** per share, as of the 16th of December 2022. The FTE method also values it at a small premium, at a per share price of **12.51 €**. To validate those values, a valuation using multiples from the Company's peers in the energy and oil & gas sector was done, which also consistently valued the stock at a premium.

However, those prices are not dictated by the stock market and the focus of this report is rather on the return current and prospective shareholders can make from an investment in the Company. Therefore, this report must present the expected stock price one year from now, meaning the end of 2023.

For this purpose, the APV method is most likely the method of choice since it is the one that best reflect the effects of interest tax shields on the valuation. The expected share price by year-end 2023 using APV is **12.73 €**. This means that if an investor decides to purchase Galp shares today, he can expect to see his shares appreciate by 8.0% in one year's time. This level of capital appreciation is somewhat confirmed by the FTE method, which estimates a 6.3% increase in share price, which is backed by the P/E multiple, that predicts an even sharper decline in stock price, albeit due to the expenses with the debt used to finance the Company's growth. For this reason, P/E multiple may not be the most useful metric to assess the equity value of Galp during this period.

However, considering the Company distributes 0.74 € in dividends per share, this means the investor gets a **14.3% return on investment** throughout the year. This is a considerable return for one year.

Alternatively, a stand-alone analysis of the valuations estimated using EBIT and EBITDA multiples would predict an overwhelming increase in stock value due to a solid increase in operational profits resulting from the strong tailwind from the commodities market on revenues. Although this may be true, the current situation of the sector may invalidate to some extent the

amplitude of this capital gain expectation, which will raise questions about the validity of the valuation methos.

In sum, the net effect of these valuations, which serve as a means of verifying the more robust cash flow-based methods, cancel each other out to some extent, such that the conclusions of this report maintain the expectations for growth and price appreciation in Galp's stock. Additionally, the intensity and scale of this growth are accentuated when consideration the dividend yield of the shares.

Consequently, although the one-year increase in share price is expected to be less than 10%, the total return investors can be expected to see is around 14% during this period, which is considerable enough for this report to recommend investors and prospective investors alike to **Buy** Galp shares at the current market price of 11.79 €.

This recommendation may be revised and altered upon release of the annual report for the fiscal year 2022, wherein certain crucial assumptions will have to be revised and/or confirmed. Also, upon release of additional information regarding productivity and expected returns from newly launched or soon-to-be launched projects. Which is a factor not considered in this model given the lack of available public figures and information. This would have a strong impact on Galp's Enterprise Value and share price. The common volatility factor in energy market securities and the speculation and uncertainty that involve turbulent periods were also not accounted for, since they can be heavily influenced by unpredictable market sentiment. All in all, there are countless external and internal factors that may influence the valuation of Galp and that cannot be modelled properly, since the added complexity from their inclusion would be purely speculative and may do more harm than good.

In conclusion, the final recommendation of this model for the time being is to **Buy** on trading Galp's share, despite not having analysed the undisclosed data pertaining to the fourth quarter, which should confirm important assumptions.