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When Oil Meets Sovereign Risk: YPF on the NYSE During Argentina's Turbulent Years

Quando o Petróleo Encontra o Risco Soberano: A YPF na Bolsa de Nova York Durante os Anos Turbulentos da Argentina

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Abstract

This study investigates the stock performance of YPF S.A., Argentina's largest oil and gas company listed on the New York Stock Exchange (NYSE), during the turbulent years between 2020 and 2024. Using a transparent methodology based on verified annual adjusted closing prices, the analysis reveals four distinct phases: a sharp decline in 2021, stagnation in 2022, and strong rebounds in 2023 and 2024, including a remarkable surge of over 180 percent between 2022 and 2023. Interestingly, these movements show a clear decoupling from Brent crude oil prices, suggesting that YPF's valuation was shaped more by domestic factors such as sovereign risk, inflation, political uncertainty, and legal developments. One such development was the 2023 U.S. court ruling against Argentina in the expropriation case of YPF. The study highlights how institutional fragility and macroeconomic instability in emerging markets can significantly influence investor sentiment, particularly for partially state-owned firms. By connecting stock price changes with broader economic and political conditions, the paper provides insight into the multifaceted risks affecting emerging-market equities. Although the dataset is intentionally limited to annual observations, the descriptive results are consistent with existing literature on sovereign credit risk and oil price volatility. The findings emphasize the need to move beyond commodity-

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driven narratives and account for institutional and country-specific dynamics. This research lays a foundational reference for future studies seeking to conduct more granular, data-rich analyses of market behavior in emerging economies such as Argentina.

Keywords: YPF, stock performance, sovereign risk, Brent oil, Argentina, emerging markets, institutional quality

Resumo

Este estudo investiga o desempenho das ações da YPF S.A., a maior empresa de petróleo e gás da Argentina listada na Bolsa de Valores de Nova York (NYSE), durante os anos turbulentos entre 2020 e 2024. Utilizando uma metodologia transparente baseada em preços anuais de fechamento ajustados e verificados, a análise revela quatro fases distintas: uma queda acentuada em 2021, estagnação em 2022 e fortes recuperações em 2023 e 2024, incluindo um aumento notável de mais de 180 por cento entre 2022 e 2023. Curiosamente, esses movimentos mostram um claro desacoplamento dos preços do petróleo Brent, sugerindo que a valorização da YPF foi moldada mais por fatores domésticos, como risco soberano, inflação, incerteza política e desdobramentos jurídicos. Um desses desdobramentos foi a decisão judicial nos Estados Unidos em 2023 contra a Argentina no caso de expropriação da YPF. O estudo destaca como a fragilidade institucional e a instabilidade macroeconômica em mercados emergentes podem influenciar significativamente o sentimento dos investidores, particularmente em empresas parcialmente estatais. Ao conectar as variações nos preços das ações com condições econômicas e políticas mais amplas, o artigo oferece uma visão sobre os riscos multifacetados que afetam os ativos de mercados emergentes. Embora o conjunto de dados seja intencionalmente limitado a observações anuais, os resultados descritivos são consistentes com a literatura existente sobre risco de crédito soberano e volatilidade dos preços do petróleo. As conclusões enfatizam a necessidade de ir além das narrativas centradas em commodities e considerar dinâmicas institucionais e específicas de cada país. Esta pesquisa estabelece uma referência fundamental para estudos futuros que busquem realizar análises mais granulares e ricas em dados sobre o comportamento do mercado em economias emergentes como a Argentina.

Palavras-chave: ypf; desempenho das ações; risco soberano; petróleo brent; argentina; mercados emergentes; qualidade institucional

1.Introduction

YPF S.A. is Argentina's largest oil and gas company and has been listed on the New York Stock Exchange (NYSE) since 1993. As a firm with significant state ownership, its stock valuation is influenced by global commodity prices as well as Argentina's macroeconomic and political environment.

Between 2020 and 2023, YPF's share price was affected by both external shocks and domestic instability. The COVID-19 pandemic triggered a historic decline in global oil demand, which led to extreme volatility in crude prices. Gil-Alana and Monge (2020) established that oil prices during that period exhibited strong persistence in volatility, influencing firm valuation dynamics. While global oil prices began to recover in 2021, Argentina's economy continued to face high inflation, exchange rate instability, and political uncertainty. These conditions dampened international investors' appetite for Argentine equities.

Furthermore, empirical literature shows that sovereign risk has tangible effects on equity prices. Hébert and Schreger (2017) found that a 10 percent increase in the probability of default led to a 6 percent decline in the value of Argentine equities. This relationship highlights how investor perceptions around sovereign risk can impact equity valuation, especially for state-linked firms.

This paper investigates YPF's stock performance on the NYSE from January 2020 to January 2024. It uses the adjusted closing price on January 31 of each year, and connects these market trends to a sequence of key economic and political events in Argentina. The goal is to understand how global commodity cycle exposure and domestic institutional risk together influence investor behavior in emerging-market energy firms.

2. Literature review

Emerging market equity behavior has long been associated with macroeconomic instability and institutional risk. Reinhart and Rogoff (2011) document the historical frequency of debt crises in developing economies, emphasizing the role of weak fiscal institutions and unpredictable policy frameworks in generating financial volatility. These factors often lead to capital flight and deteriorating investor sentiment toward publicly listed firms.

Equity markets in countries with inflationary pressures and exchange rate instability show increased sensitivity to political uncertainty. Aggarwal et al. (2012) find that institutional investors systematically reduce their exposure to firms located in countries with high corruption and low regulatory quality. In the context of Argentina, this suggests that international investors may discount state-linked firms due to concerns over policy discretion and lack of transparency.

The structure of corporate ownership also affects firm valuation in emerging economies. La Porta et al. (1999) show that concentrated ownership and state control are associated with weaker investor protection and lower firm performance. These characteristics are particularly relevant in the case of partially state-owned enterprises, where political interference and soft budget constraints may distort investment decisions and operational efficiency.

In addition, oil-related firms operating in financially constrained countries face dual risk channels: volatility from commodity markets and local macro-financial fragility. Basher, Haug, and Sadorsky (2012) provide evidence that oil price fluctuations negatively affect emerging stock markets and exchange rates. For a firm like YPF, this interaction likely contributes to its elevated risk profile in international markets.

This body of research suggests that YPF's performance on the NYSE cannot be explained by commodity prices alone. Institutional quality, investor protection, and macroeconomic policy credibility must be taken into account to understand the valuation dynamics of Argentine equities during the period 2020 to 2023.

3. Methodology

3.1 Data

The dataset used in this study consists of five adjusted closing prices for YPF S.A. (NYSE: YPF), recorded on January 31 of each year from 2020 to 2024. All values were manually verified and represent actual observed market prices, adjusted for splits and dividends. These data points serve as fixed reference positions for year-over-year price comparison and reflect the company's market valuation at a consistent point in time across five consecutive years.

The use of January 31 as a common cut-off allows for standardized temporal intervals without requiring interpolation or the use of monthly averages. This limited-scope dataset enables a descriptive analysis of the company's performance during a period of high volatility in both global energy markets and Argentina's domestic economy. No simulated values or estimated series are included at any stage.

Table 1 Prices of the YPF Stock from 2020-2024

| Date | Adjusted Closing Price (USD) |
|--------------|------------------------------|
| Jan 31, 2020 | 7.990 |
| Jan 31, 2021 | 4.330 |
| Jan 31, 2022 | 4.200 |
| Jan 31, 2023 | 11.770 |
| Jan 31, 2024 | 17.300 |

Source: Elaborated by the authors based on data retrieved from *Investing.com*.

Figure 1 presents the evolution of YPF S.A.'s adjusted closing stock prices as recorded on the New York Stock Exchange (NYSE) on January 31 of each year from 2020 to 2024. This snapshot-based approach allows for a clear visualization of annual price fluctuations without the influence of intra-year volatility. The data reveals significant variation in the stock's market valuation over the observed period, reflecting potential shifts in investor sentiment, corporate performance, and broader macroeconomic conditions.

Figure 1. Evolution of YPF Adjusted Closing Prices on the NYSE (January 31, 2020–2024)



Source: Own elaboration based on historical YPF stock price data from the NYSE.

To contextualize the evolution of YPF's stock price, it is essential to consider the trajectory of international oil prices during the same period. Table 2 presents the closing prices of Brent crude oil as of the end of January for each year from 2020 to 2024. Brent is one of the world's primary oil benchmarks and serves as a key reference for global energy markets. These values provide a macroeconomic backdrop against which fluctuations in YPF's market valuation can be better understood, especially given the firm's dependence on hydrocarbon exports and the sensitivity of its revenue to commodity price cycles. Data for January 31 was unavailable and was therefore replaced with the data from January 29. At the same time, data for January 29 for the YPF stock was not available from the source used.

Table 2 Brent Crude Oil Prices (End of January, 2020–2024)

| Date | Brent Price (USD) |
|-----------------|-------------------|
| 31 January 2020 | 56.41 |
| 29 January 2021 | 55.89 |
| 31 January 2022 | 91.29 |
| 31 January 2023 | 84.47 |
| 31 January 2024 | 81.71 |

Source: Elaborated by the authors based on data retrieved from Business Insider Markets.

3.2 Comparison

This study adopts a descriptive approach based exclusively on a short panel of five verified stock prices for YPF S.A., recorded on January 31 of each year from 2020 to 2024. These adjusted closing prices serve as a fixed benchmark for analyzing annual price variations using only real, observed market data. A comparison with Brent values was added to provide additional context.

The methodology involves calculating the year-over-year percentage change in adjusted closing price to assess the evolution of the stock's market value over time. This well-established metric allows for a clear measurement of annual variation without requiring further statistical modeling.

This simple approach captures directional shifts in valuation without relying on assumptions, projections, or interpolated data. All values are derived directly from confirmed historical prices. The analysis does not attempt to infer causality or estimate the effect of external factors such as oil prices or political events, as this would require broader datasets and modeling techniques not compatible with the current data scope.

The use of this methodology ensures full transparency and replicability while remaining consistent with the limited but accurate nature of the available data.

4. Results

Table 3 presents the year-over-year percentage change in adjusted closing prices for YPF's stock on the NYSE, calculated from the verified values corresponding to January 31 of each year between 2020 and 2024. The results indicate a sharp decline between 2020 and 2021, relative stability in 2022, and significant appreciation in 2023 and 2024.

Table 3 Year-over-year price changes for YPF (Jan 2020–Jan 2024)

| Period | Price at Start (USD) | Price at End (USD) | YoY Change (%) |
|---------------------|----------------------|--------------------|----------------|
| Jan 2020 → Jan 2021 | 7.990 | 4.330 | –45.80% |
| Jan 2021 → Jan 2022 | 4.330 | 4.200 | –3.00% |
| Jan 2022 → Jan 2023 | 4.200 | 11.770 | +180.24% |
| Jan 2023 → Jan 2024 | 11.770 | 17.300 | +46.99% |

Source: Elaborated by the authors based on data retrieved from *Investing.com*.

The largest increase occurred between January 2022 and January 2023, with a return of over 180 percent. This surge followed a relatively stagnant period during which the price hovered around four dollars per share. The weakest performance was observed in the first year of the sample, reflecting a 45 percent decline between 2020 and 2021.

These results illustrate the volatility of YPF's valuation over a five-year period, even without accounting for external explanatory factors. The next section discusses how these movements may relate to broader macroeconomic conditions and investor expectations during the observed timeframe.

This table presents the annual percentage change in the adjusted closing price of YPF stock (listed on the NYSE) and the international Brent crude oil price, calculated on a year-over-year basis from January 2020 to January 2024. While oil prices are typically expected to influence the performance of oil companies, the observed trends reveal notable divergences between the evolution of Brent prices and the market valuation of YPF. These discrepancies suggest that YPF's stock price has been influenced by additional factors beyond global oil benchmarks, such as domestic economic conditions, political developments, or company-specific events.

Table 4 Annual Percentage Change Table: YPF Stock and Brent Oil Prices

| Period | YPF (% YoY) | Brent (% YoY) |
|--------------|-------------|---------------|
| 2021 vs 2020 | −45.8% | −0.92% |
| 2022 vs 2021 | −3.0% | +63.4% |
| 2023 vs 2022 | +180.2% | −7.5% |
| 2024 vs 2023 | +46.99% | −3.3% |

Source: Elaborated by the authors based on historical adjusted closing prices of YPF from Investing.com and Brent oil prices (Business Insider Markets).

5. Discussion

The year-over-year price fluctuations in YPF's stock, as documented in Section 4, are consistent with broader patterns observed in emerging market equities, particularly in the presence of oil price volatility and sovereign risk.

Asteriou (2013) provides empirical evidence that oil price risk significantly affects stock market returns in emerging economies. His international multi-factor model shows that increased oil price uncertainty is associated with declining equity returns across 22 emerging markets. This result aligns with the observed 45.8 percent decline in YPF's adjusted price between January 2020 and January 2021, a period characterized by the collapse of global oil demand during the COVID-19 pandemic.

Sovereign credit risk also plays a key role in the valuation of Argentine equities. Hébert and Schreger (2017) estimate that a 10 percent increase in the probability of sovereign default leads to an approximate 6 percent decline in the value of Argentine stocks. This relationship is relevant when interpreting the continued stagnation in YPF's stock price between January 2021 and January 2022, despite a partial recovery in oil markets.

The strong rebound observed from January 2022 to January 2023, with a 180.2 percent price increase, may reflect a convergence of recovering oil prices and a temporary decline in perceived sovereign risk. However, this paper does not attempt to isolate causal mechanisms. The dataset is limited to annual price points, and no external variables have been included in the analysis.

In regards to the relationship between YPF and Brent oil prices, the stock price of YPF does not exhibit a consistent or linear correlation with the price of Brent crude. For instance, during periods when Brent prices declined, YPF stock experienced significant gains. This decoupling suggests that YPF's market valuation is influenced by a broader set of dynamics beyond global oil benchmarks, including local market perceptions, investor sentiment, and Argentina's macroeconomic environment.

Nevertheless, the descriptive results are consistent with established findings in the literature. They suggest that YPF's market valuation during the 2020–2024 period was influenced by a combination of global and domestic factors, even though these drivers are not formally modeled in this study.

6. Conclusion

This study examined the performance of YPF's stock on the New York Stock Exchange between January 2020 and January 2024 using a simple, transparent dataset of adjusted closing prices recorded on the last trading day of January each year. Without resorting to assumptions or interpolated data, the analysis focused exclusively on observed annual price changes.

The results revealed four distinct periods: a sharp decline between 2020 and 2021, marginal negative variation in 2022, followed by strong rebounds in 2023 and 2024. The most significant gain was an increase of more than 180 percent that

occurred between January 2022 and January 2023. These trends highlight the volatility and sensitivity of YPF's valuation over the period analyzed.

Another key institutional development occurred on March 31, 2023, when a U.S. judge issued a ruling in favor of Burford Capital in the expropriation case against Argentina related to the 2012 nationalization of YPF. Although the amount of damages was yet to be determined, the legal defeat increased concerns over the country's exposure to international litigation and its potential fiscal consequences. This event may have introduced additional uncertainty for investors, even amid the broader rebound in YPF's stock price during that period. The market's reaction, however, suggests that positive momentum in commodity prices and local political dynamics may have temporarily outweighed the impact of adverse legal rulings (Reuters, 2023).

Although the scope of the study was intentionally narrow, the findings are consistent with broader academic literature on emerging market equities, particularly in relation to oil price risk and sovereign default probabilities. Previous research has shown that these external factors have measurable effects on the valuation of Argentine ADRs.

This limited-scope, data-grounded approach provides a useful reference point for future research. Expanding the dataset to include monthly or daily observations, as well as incorporating macroeconomic variables, would allow for more detailed econometric analysis and hypothesis testing regarding the underlying drivers of YPF's market behavior.

Conflict of interest: Authors declare no conflict of interest

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