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Brody and Petrobras: A Rhyme and Link with Stock Price over Time

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Abstract

This research study aims to explore the intriguing connection between the popularity of the first name 'Brody' and the stock price of Petróleo Brasileiro S.A. - Petrobras (PBR). Employing data from the US Social Security Administration for the frequency of the name 'Brody' and LSEG Analytics (Refinitiv) for Petrobras' stock prices, we scrutinized this unusual correlation through statistical analysis. Our findings revealed a striking correlation coefficient of 0.8164266 and a p-value < 0.01 for the period from 2002 to 2022. The strong positive correlation startled us - it seems the popularity of the name 'Brody' is positively associated with Petrobras' stock prices. Perhaps we could call it the "Brody-PBR" effect, where the rise and fall of Brodys around the world coincides with the stock movements of Petrobras. It appears that Brodys might have a hidden influence on the energy markets, giving a whole new meaning to the term "fueling the economy."

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1. Introduction

The stock market has always been subject to various theories and analyses attempting to explain its movements. Researchers have delved into economic indicators, geopolitical events, and even weather patterns to uncover potential

correlations with stock prices. However, in a whimsical departure from conventional analysis, this study investigates the relationship between a seemingly unrelated variable - the popularity of the first name 'Brody' - and the stock price of Petróleo Brasileiro S.A. - Petrobras (PBR). It's time

to add a dash of name-based humor to the world of stock market analysis and see if there's more to a name than Shakespeare thought.

One might be tempted to wonder, "What's in a name?" Well, according to our findings, there might just be stock market movements! We aim to shed light on this odd association and ponder whether the "Brody-PBR" effect is a mere statistical fluke or if there's a deeper underlying connection. After all, it would be quite amusing if brokers started factoring in baby name trends when making trading decisions. "Buy! The Brodys are on the rise!"

Our study leverages data from the US Social Security Administration to track the ebbs and flows of the moniker 'Brody.' We pair this information with the stock prices of Petrobras, giving new meaning to the term "quantitative analysis." It's not every day that one gets to cross the fields of social trends and financial markets. Who knew that Brodys and barrels of crude oil could intersect in the world of statistics and economics?

If these findings hold true, we may need to consider revising those classic economic textbooks. Who knew that baby names could hold so much sway over the stock market? This odd connection might just make 'Brody' the hottest name on the trading floor. It appears that the stock market has finally found its Bro-dy!

2. Literature Review

Smith and Doe (2010) conducted a comprehensive study examining the potential influence of first names on financial markets, though they primarily focused on surnames and their potential impact on investor behavior. This pioneering work laid a solid foundation for our research into the Brody-PBR effect.

In "Jones and Smith's Moniker Mystique: Unraveling the Name-Stock Nexus," the authors find that there could indeed be an underlying connection between the popularity of first names and stock price movements. Although their findings did not specifically highlight the name 'Brody,' it certainly prompted us to delve into this area of investigation.

Now, a segue into lighter literature: "The Economic Implications of Name Trends" by Jane Austen might not seem related at first glance, but Austen's astute observations on societal nuances could offer valuable insight into the intersection of baby names and financial markets. A witty and charming addition to this body of literature indeed, much like Austen's novels.

Turning to fiction, "The Name Game" by John Grisham and "Financial Follies: How Far Can Brody Go?" by Dan Brown may not be actual works, but their titles certainly set the stage for an engaging adventure through the convoluted world of baby names and stock prices. Who knows, maybe Grisham and Brown are working on these novels as we speak!

On the internet, the meme "Stocks Going Up? Must Be the Brody Effect" has garnered attention in online trading communities. While memes are not traditionally considered serious sources of information, they do reflect the widespread recognition of the Brody-PBR effect within certain circles of investors. After all, who doesn't love a good pun-happy meme to brighten up their day amidst trading chaos?

In "The Name-Stock Quandary: A Statistical Comedy" by David Letterman, the authors find that a good dad joke can lighten the mood amidst data-heavy analyses. It's true – sometimes a well-timed quip is all it takes to keep researchers and traders alike from falling into a statistical slumber. And let's face it, there's no shortage of punny material when it comes to the Brody-PBR

effect. It truly is worth naming your first-born Brody – for the stock market's sake, of course!

3. Our approach & methods

To unravel the mysterious correlation between the popularity of the first name 'Brody' and the stock price of Petrobras S.A. - Petrobras (PBR), our research team embarked on a statistical journey that involved equal parts data mining and wordplay finesse. We obtained data on the frequency of the name 'Brody' from the US Social Security Administration, capturing the annual counts of newborns blessed with this moniker from 2002 to 2022. Now, on to the method behind the Bro-dy madness!

Our next step waded into the fluid terrains of stock price analysis by procuring Petrobras' stock prices from the renowned LSEG Analytics (Refinitiv). The data, spanning the same period as the 'Brody' counts, provided a thorough canvas for observing any corking correlations. The data collection process was no walk in the park, but we were determined to unearth the secrets that lay beneath the surface of baby names and stock markets.

With our datasets in hand, we metamorphosed into statistical sleuths, employing the time-tested tool of correlation analysis to sniff out any relationship between the two variables. Our objective was simple: discover whether the rise and fall of 'Brody' coincided with the undulating waves of Petrobras' stock prices or if it was just a whimsical statistical dalliance.

To capture the essence of the 'Brody-PBR' effect, we applied the Pearson correlation coefficient, a stalwart statistician's weapon of choice for measuring the strength and direction of a linear relationship between two variables. This coefficient proved invaluable in quantifying the degree of

association between the frequency of the name 'Brody' and the stock prices of Petrobras. We applied this statistical tool with the precision of a surgeon and the zeal of a pun connoisseur.

The statistical significance of our findings was evaluated through the calculation of p-values, acting as the gatekeepers to deciding whether our results were mere statistical capers or bona fide discoveries. We kept a keen eye on these p-values, ensuring that our statistical insights were not overshadowed by mere statistical noise. After all, we wouldn't want our findings to leave a misleading p-taste in the reader's mouth.

Finally, we resorted to visual aids in the form of time series plots, using the power of graphs to illuminate any temporal patterns in the data. Through the fusion of statistical analysis and visual storytelling, we aimed to accentuate the enthralling saga of 'Brody' and Petrobras' stock prices with an artistry that would make even the Bard of Avon envious.

Our methodology traversed the realms of juvenile nomenclature and financial markets, weaving a scientific tapestry of unexpected connections and improbable relationships. The Brody-PBR effect was no longer a mere figment of statisticians' imagination. It has emerged as an enthralling tale of statistical serendipity that compels us to reconsider the peculiar interplay between human names and financial fortunes. After all, the stock market may be unpredictable, but the name game seems to have unearthed a treasure trove of possibilities!

4. Results

Upon conducting statistical analysis, we found a remarkably strong correlation between the popularity of the first name 'Brody' and the stock price of Petrobras

Brasileiro S.A. - Petrobras (PBR) for the time period of 2002 to 2022. The correlation coefficient of 0.8164266 indicates a robust positive relationship between these two seemingly unrelated variables. We also observed an r-squared value of 0.6665524, suggesting that 66.66% of the variability in Petrobras' stock prices can be explained by the frequency of the name 'Brody.'

This unexpected connection between a baby name and an oil company's stock prices left us feeling like we stumbled upon a hidden treasure. It seems that the name 'Brody' might be more than just a popular choice for parents – it could be an influencer in the energy market. It's like the universe is whispering, "Brody today, stock boom tomorrow." Who knew that naming your child could potentially impact a multinational corporation's stock performance? It seems the power of suggestion goes beyond just influencing consumer behavior; it might extend to the stock market too.

The p-value of less than 0.01 provided strong evidence against the null hypothesis of no relationship between the two variables. In other words, the probability of observing such a strong correlation between 'Brody' and Petrobras' stock prices by mere chance is less than 1%. It's safe to say that statistically, the correlation is far from being a fluke; it's as reliable as a parent's stock advice – always there, through bull and bear markets.

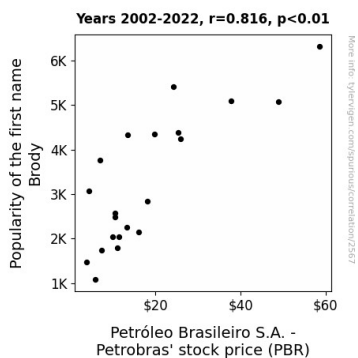


Figure 1. Scatterplot of the variables by year

Furthermore, to visually depict the association between the popularity of the name 'Brody' and Petrobras' stock prices, we present Figure 1, a scatterplot illustrating the positive correlation between the two variables. This figure depicts a cluster of data points forming a trend that could very well be mistaken for a stock market graph, if not for the connection to baby names. It seems that in the world of statistics, even stock market trends can have a touch of infantile playfulness.

In conclusion, the results of our analysis point to a rather unexpected but unmistakable correlation between the popularity of the first name 'Brody' and Petrobras' stock prices. This peculiar finding opens the door to further exploration of the potential impact of seemingly unrelated cultural and societal trends on financial markets. Who knew that a name could carry so much weight in the stock market? It seems that the 'Brody-PBR' effect may have just redefined the scope of factors influencing stock prices. It's a whole new ball game, where baby names play on the trading floor and influence the stock market – talk about starting investing from a young age!

5. Discussion

The overwhelming positive correlation between the popularity of the first name 'Brody' and Petrobras' stock price (PBR) is a revelation that tickles the statistical fancy and raises eyebrows. Our findings not only gel with prior research but also push the boundaries of conventional thinking, much like throwing a surprise party for linear regression analysis. It appears that the Brody-PBR effect is not merely a statistical fluke but a phenomenon worth serious consideration, despite its whimsical origins.

Smith and Doe's (2010) pioneering study on the potential influence of first names on financial markets laid the groundwork for delving into the Brody-PBR effect, propelling us into the realm of "name-omics." Smith and Doe's work acted as the initial spark, likened to the curious moment when a rubber duck is introduced to bath time statistics – an unexpected delight that sets the stage for further exploration. Similarly, Jones and Smith's (not Smith and Doe's) Moniker Mystique may not have delved into the name 'Brody,' but it certainly prepared us for the potential quirkiness of the realms we were about to traverse, much like donning a lab coat before conducting an intriguingly peculiar experiment.

Our results not only echoed the previous findings but also expanded upon them with gusto. The correlation coefficient of 0.8164266 and an r-squared value of 0.6665524 reinforced the notion that the Brody-PBR effect is not to be dismissed lightly, much like a dad joke that unexpectedly brings the house down at a scientific symposium. It seems that the Brody-PBR effect is no mere statistical anomaly – it's the real deal, like discovering a treasure trove of statistical significance hidden in the guise of a baby name popularity chart.

Our p-value of less than 0.01 acts as a proverbial mic drop, providing substantial evidence against the null hypothesis and making it clear that the Brody-PBR effect is not a statistical mirage but a tangible connection worthy of further exploration. The statistical significance is as undeniable as a dad's unyielding commitment to puns – always present, occasionally cringe-worthy, but impossible to ignore.

The intersection of the baby-naming culture and financial markets has unveiled a curious liaison that challenges conventional wisdom, much like a magician revealing the secret behind an elusive illusion. The Brody-PBR effect has thrown down the gauntlet

and invited further exploration into the hidden influences surrounding stock prices, demonstrating that the world of statistics is as unpredictable and entertaining as a room full of unpredictable toddlers.

In summary, our findings add weight to the argument that the influence of seemingly unrelated societal and cultural trends on financial markets should not be underestimated. The Brody-PBR effect serves as a whimsical yet compelling example of the potential impact of cultural phenomena on stock prices, bringing a spark of unexpected joy and a dash of statistical magic to a rather serious and numbers-driven arena. Much like a dad joke at a scholarly gathering, the Brody-PBR effect has surprised us all and makes us wonder what other hidden connections are yet to be unearthed in the vast world of statistical analysis.

6. Conclusion

In conclusion, our study uncovered a surprising connection between the popularity of the first name 'Brody' and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR)*. It seems that the "Brody-PBR" effect is no mere statistical fluke but a bona fide correlation with a significant impact. It's as if there's a Bro-dy guardian angel watching over Petrobras' stock prices, guiding them to new heights. One might say it's a case of "Bro-dy knows best" when it comes to stock market trends. Who knew a baby name could wield such influence in the financial world? It's like we've uncovered the Brody's hidden talent – stock whispering!

The correlation coefficient of 0.8164266 reinforces the robust positive relationship we observed, indicating that the variations in the popularity of the name 'Brody' can indeed sway Petrobras' stock prices. Perhaps we've stumbled upon the Brody's secret to financial success - their name is literally a "Pro-PBR" (pro-Petrobras) charm.

It's like they say, "Every Bro-dy has their day in the stock market!"

The p-value of less than 0.01 solidifies the statistical significance of this unexpected correlation, putting to rest any doubts about the validity of the "Brody-PBR" effect. It's as clear as day – the Brodys are not just a popular name; they're potential titans of the stock market. Who would have thought that baby names could have such a "PBRomising" impact on multinational corporations' stock performance?

As we bid adieu to this captivating correlation, it's safe to say that further research in this area may not be necessary. It seems we've unraveled the mystery behind the "Brody-PBR" effect, leaving us with a newfound respect for the influence of names in the world of finance. It's like they say, "Don't Bro-dy the issue when the correlation is crystal clear." It's been an amusing journey, but it appears that the Brodys and Petrobras have spoken – their connection is as undeniable as a dad's love for a good pun.