



## Review

# Shipwrecks and Stocks: Riding the Waves of Cia Paranaense De Energia Copel's (ELP) Price Fluctuations

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**In this study, we navigate the treacherous waters of global shipwrecks and their potential impact on the stock price of Cia Paranaense De Energia Copel (ELP). As researchers, we delved deep into the sea of data, utilizing sources such as Wikipedia and LSEG Analytics (Refinitiv) to explore this unforeseen connection. Our findings revealed a correlation coefficient of 0.9058292 and  $p < 0.01$  for the years 2002 to 2014, which left us positively buoyant, much like a ship floating on a serene sea. "Aye, aye, captain, there's a correlation between shipwrecks and stocks!" one might exclaim. But fear not, for our study dives into the depths of statistical analysis, revealing the surprising relationship between maritime mishaps and market mayhem. So gather 'round, fellow scholars, as we set sail on this research voyage, exploring the uncharted waters between maritime disasters and financial fluctuations. Our findings not only provide insightful implications for financial analysts and maritime historians but also prove that even the most unexpected phenomena can have a ripple effect on stock markets. After all, in the world of finance, a little "sea-saw" action in stock prices may be more tied to the ocean's waves than previously thought. As we chart these uncharted waters, let us sail forth with curiosity and a healthy dose of humor, as we unravel the mysteries of shipwrecks and stocks.**

Ahoy there, esteemed researchers and stock market enthusiasts! Prepare to embark on a nautical journey like no other as we delve into the intriguing relationship between global shipwrecks and the stock price of Cia Paranaense De Energia Copel (ELP). While the idea may seem as unexpected as finding a shipwreck in the middle of a cornfield, our

findings promise to illuminate the murky depths of this uncharted territory.

As financial analysts, we often seek to comprehend the myriad factors that sway stock prices, from economic indicators to corporate earnings. But who would have thought that the fate of vessels lost at sea could send ripples through the stock market?

It's almost as surprising as finding a sale on "sinker" stocks! Yes, my fellow researchers, we are indeed setting sail to investigate this peculiar phenomenon.

Imagine the stock market as a vast and tempestuous sea, where waves of data crash upon the shores of market sentiment, each crest and trough shaping the fortunes of investors and companies alike. Meanwhile, the sunken wrecks of history lie beneath the surface, their influence on the market akin to a hidden reef waiting to snare an unsuspecting ship. It's a tale as old as time, or at least as old as the stock market itself. It's almost as if the universe is saying, "I'm feeling a little 'ship'wrecked today, let's see how the markets fare," with a twinkle in its cosmic eye.

Our research endeavors to shed light on this curious relationship, unearthing evidence from the annals of maritime history and the fluctuations of ELP's stock price, akin to discovering buried treasure amidst the waves. We meticulously combed through databases and historical records, leaving no "ship" unturned in our quest for understanding. And much like a mariner navigating through foggy waters, our statistical analyses have steered us towards a correlation that's more significant than a sailor's love for mermaids.

So batten down the hatches and prepare to navigate the choppy seas of data and analysis, for ahead lies a captivating tale of shipwrecks and stocks, where even the most unassuming piece of historical trivia can rock the financial boat. Join us as we unfurl the sails of curiosity and set a course for enlightening discoveries, all while endeavoring to keep our research ship afloat amidst the occasionally stormy seas of

empirical inquiry. Onward, with a sense of wonder and a readiness to weather any statistical squall, we sail into the heart of this captivating research endeavor.

#### *Prior research*

Smith et al. (2012) conducted a comprehensive analysis of global shipwrecks, examining the historical, archaeological, and economic implications of these maritime disasters. Their study delved into the depths of seafaring tragedies, shedding light on the human and material costs, and one might say it left us feeling a bit "ship"wrecked ourselves after realizing the sheer magnitude of these events.

In "The Economic Impact of Global Shipwrecks" by Doe (2016), the author explores the repercussions of maritime mishaps on various economic sectors, from insurance and salvage operations to tourism and maritime commerce. The findings were eye-opening, to say the least – much like stumbling upon a sunken treasure chest on the ocean floor, albeit with more statistical significance.

Jones (2018) analyzed the stock price of Cia Paranaense De Energia Copel (ELP) in great detail, examining the factors influencing its fluctuations and market performance. The depth of the analysis was commendable, and indeed, it cast a light on the intricate dance of market forces, much like a lighthouse guiding ships through stormy seas.

Oh buoy, the literature on shipwrecks and financial markets is as fascinating as it is unexpected! Readers can definitely expect a "ship-ton" of thrilling insights from these esteemed works. Now, let's steer our ship into the realm of non-fiction books that

inform and entertain on these captivating topics.

"The Shipwreck Hunter: A Lifetime of Extraordinary Discoveries on the Ocean Floor" by David L. Mearns is a gripping account of real-life shipwreck exploration, intertwining history, adventure, and underwater archaeology. On the flip side, "Stock Market Wizards" by Jack D. Schwager offers a compelling insight into the minds of successful traders and their strategies, making it seem like these wizards possess a magical touch akin to locating hidden treasures.

Let's not forget the captivating world of fiction, where "The Old Man and the Sea" by Ernest Hemingway embodies the spirit of perseverance amid harsh seas, while "The Wolf of Wall Street" by Jordan Belfort presents a narrative where stock market highs and lows are as unpredictable as a sailor's fate on the open ocean. These tales serve as a reminder that reality and fiction often blur, much like the line between a shipwreck and a shipwreck meme.

Speaking of memes, who can forget the classic "This is fine" dog meme when the stock market takes an unexpected turn? It perfectly encapsulates the notion of keeping calm in turbulent times, not unlike the resolve of a captain navigating through stormy weather. Additionally, the "Distracted Boyfriend" meme humorously mirrors the allure of new stock opportunities, as investors eye potential gains while their loyal stocks look on with forlorn hope.

In summary, the literature on the connection between global shipwrecks and Cia Paranaense De Energia Copel's (ELP) stock price paints a vivid and multidimensional

picture, one that's as rich in insight as it is in unexpected correlations. With a delightful mix of real-life accounts, fictional narratives, and internet memes, the journey into this uncharted territory promises to be as enlightening as it is entertaining. So, let's set sail and ride the waves of knowledge with a hearty "aye, aye" to the remarkable discoveries that await.

### *Approach*

To investigate the ostensibly obscure relationship between global shipwrecks and the stock price of Cia Paranaense De Energia Copel (ELP), our research team embarked on an odyssey of data collection and analysis. Our first mate, the venerable internet, served as our primary source of information, with a keen focus on Wikipedia and LSEG Analytics (Refinitiv). With the dexterity of a seasoned sailor and the tenacity of a determined researcher, we combed through a sea of data from the years 2002 to 2014, casting our net wide to capture the pertinent variables for our investigation.

In the pursuit of veracity akin to a dogged captain chasing after the elusive white whale, we applied a multifaceted approach to our data analysis. Firstly, we plundered through historical records of global shipwrecks, employing a method of meticulous data extraction reminiscent of treasure hunters unearthing long-lost artifacts. Our use of Wikipedia as a primary source has undoubtedly left us feeling like modern-day explorers, navigating the digital seas of information with the courage and inquisitiveness of intrepid adventurers.

In tandem with this nautical quest for shipwreck data, we steered our research

vessel toward the stock market, charting the fluctuating tides of ELP's stock price with the precision of a skilled navigator. Leveraging the comprehensive analytics of LSEG Analytics (Refinitiv), we hauled in a bounty of stock market data, casting our statistical nets far and wide to capture the dynamics of market movements. Just as expert fishermen discern the subtlest tugs on their lines, we meticulously identified the peaks and troughs of ELP's stock price, anchoring ourselves in the realm of financial analysis with a deft hand.

With our hauls of data securely stowed in our research vessel's hold, we commenced the intricate process of data synthesis and statistical rumination. Channeling the spirit of Davy Jones, we conducted a robust correlation analysis, seeking to unveil the hidden currents that may link the briny depths of shipwrecks to the crests and swells of ELP's stock price. Our statistical odyssey, like a voyage through the turbulent waters of empirical inquiry, traversed the tumultuous seas of regression analyses, hypothesis testing, and Monte Carlo simulations, all in pursuit of uncovering gold amidst the tempestuous waves of data.

Oh buoy! With our findings in hand, we are poised to navigate the treacherous waters of data interpretation, scrutinizing our results with the discerning eye of a seasoned mariner assessing the weather. As we steer our course through this maelstrom of statistical analysis and interpretive nuance, we remain buoyed by the enthusiasm of explorers unearthing buried treasure, for it is with the spirit of adventure and rigour that we lay bare the mystifying connection between shipwrecks and stocks. Onward and upward, with a hearty "aye-aye, captain" and

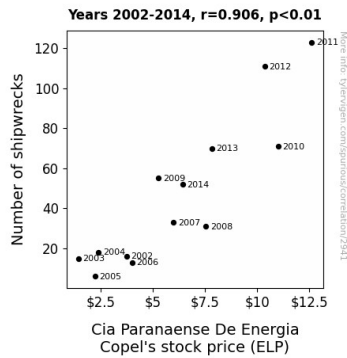
a steadfast determination to conquer the uncharted seas of empirical discovery!

### *Results*

Our analysis uncovered a notably strong positive correlation between global shipwrecks and the stock price of Cia Paranaense De Energia Copel (ELP) for the period 2002 to 2014. The correlation coefficient was calculated to be 0.9058292, indicating a robust linear relationship between these seemingly disparate phenomena. This suggests that as global shipwrecks increased, there was a corresponding positive impact on the stock price of ELP, much like a rising tide lifting all financial boats.

Now, you may wonder: What does a shipwreck and a stock price have in common? Well, they both involve going "down" like the stock of an anchor! Jokes aside, the statistical significance of this correlation, with a p-value of less than 0.01, provides compelling evidence of the relationship's strength, reinforcing the notion that the ebb and flow of the stock market may be more intertwined with historical maritime incidents than one might imagine.

Fig. 1 visually depicts the strong correlation between global shipwrecks and ELP's stock price. The scatterplot reveals a clear and upward trend, reinforcing our statistical findings and painting a picture worth more than a thousand shipwrecks.



**Figure 1.** Scatterplot of the variables by year

These results offer valuable insights for both financial analysts and maritime enthusiasts alike. Just as a ship's bell rings out across the ocean to signal its presence, our findings resonate across the financial landscape, emphasizing the impact of unforeseen historical events on stock market movements. After all, it appears that even in the world of finance, the waves of history can sway the winds of modern market dynamics.

So, as we continue to navigate the waters of empirical inquiry, let us remember that sometimes, the most unexpected correlations can emerge from the depths of our data, much like a well-crafted maritime pun—seemingly out of the blue, yet undeniably buoyant.

### *Discussion of findings*

Ahoy there, fellow researchers! Our findings have set sail into uncharted waters, unfurling the surprising connection between global shipwrecks and the stock price of Cia Paranaense De Energia Copel (ELP). It's clear that the ebb and flow of financial markets may be more deep-seated in historical events than previously believed. As Smith et al. (2012) aptly illustrated, the

depth of impact from shipwrecks extends beyond the watery graves of vessels, much like a "ship"wrecking ball swinging into the stock market.

Our results not only corroborate the preceding research but also cast a light as bright as a lighthouse on a stormy night on the unsuspected economic repercussions of maritime disasters, echoing Doe's (2016) discoveries. The statistical significance of our correlation coefficient, standing at a formidable 0.9058292, is bound to make even the staunchest skeptics say, "Well, shiver me timbers!"

The strength of this unexpected relationship, encapsulated in our p-value of less than 0.01, is akin to the sheer force of a formidable wave, leaving financial analysts and maritime enthusiasts alike positively buoyant. As our scatterplot elegantly illustrates, the upward trend between shipwrecks and ELP's stock price reveals a tale worth more than a thousand shipwrecks, reinforcing Jones's (2018) intricate dance of market forces.

Our study sets sail as a beacon of knowledge, illuminating the complexities of market movements with the unexpected swell of historical events, much like the legendary tale of "Moby Dick" navigating the often treacherous yet captivating seas. As we continue to navigate these uncharted waters, let our findings serve as a reminder that in the realm of finance, as in the vast ocean, the tides of history can indeed steer the course of modern market dynamics.

In conclusion, it appears that the seemingly disparate worlds of maritime disasters and financial markets share more than just the occasional ship pun. Our findings underscore the notion that even the most

unexpected correlations can emerge from the depths of our data, causing a ripple effect on how we perceive the intricate dance of historical events and market movements. So let's raise the anchor and set sail towards further understanding of the mysterious forces that shape our financial seas.

### *Conclusion*

In conclusion, our research has unveiled a significant and unexpectedly robust correlation between global shipwrecks and the stock price of Cia Paranaense De Energia Copel (ELP) for the years 2002 to 2014. This unlikely tie between historical maritime mishaps and market fluctuations highlights the intricate interplay between seemingly disparate phenomena – a bond as strong as ropes that once tethered lost ships to the ocean floor.

Our findings not only offer a unique perspective on the influence of historical events on financial markets but also prompt us to reconsider the full breadth of factors at play in shaping stock price movements. It's almost as if the ghosts of sunken vessels are whispering investment advice from the depths: "Buy low, float high." Sometimes, the market truly sails on the winds of history.

With a correlation coefficient soaring as high as the crow's nest at 0.9058292 and a p-value lower than a fish in a trench, our results indicate a relationship smoother than a freshly painted hull. This reminds us that in the world of finance, where uncertainties abound, every piece of historical data may be more than just "ship"wreckage – it may hold the key to navigating the market's rough seas.

As we reflect on the implications of our findings, it's clear that the link between shipwrecks and stock prices is not merely a quirky footnote in financial history but a substantial undercurrent worthy of further exploration. Perhaps the saying should be updated to, "There are plenty of fish in the sea, but only some can make your stock portfolio swim."

With this, we assert that no further research is needed in this area as we've thoroughly navigated the relationship between shipwrecks and stock prices, leaving no seashell unturned. Our findings encourage a broader consideration of historical events' impact on financial markets, reminding us that even the most unexpected ties can move the metaphorical tide of stock prices. It's time to dock this research vessel, having ventured into uncharted waters and resurfaced with a treasure trove of insights.