# Gold Diggers: A Ship-Shape Analysis of the Relationship Between Gold Prices and Global Shipwrecks

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In this paper, we delve into the intriguing association between the price of gold and the occurrence of global shipwrecks over the period from 1975 to 2014. Using data from Kitco and Wikipedia, we conducted a rigorous analysis to unravel the connection. Our findings reveal a striking correlation coefficient of 0.8788749 and p < 0.01, demonstrating a strong relationship between the two variables. As we navigate through the waves of statistics and dive into the depths of economic and maritime history, we present both serious and whimsical interpretations of this unexpected link. Our study not only sheds light on the financial implications of underwater treasure, but also highlights the shipwrecking tales that may have been "golden" opportunities for some and "sunk costs" for others. Join us on this research voyage to uncover the buried treasure of economic insights and seafaring humor.

Welcome aboard, fellow researchers, as we embark on a nautical adventure to explore the captivating correlation between the price of gold and the occurrence of global shipwrecks. Just like a mischievous pirate searching for buried treasure, we are on a quest to uncover the hidden connection between these two seemingly unrelated phenomena. So grab your compass and telescope, because we are about to set sail on the high seas of statistical analysis and economic oceanography!

As we navigate through the treacherous waters of economic data, we cannot help but marvel at the enigmatic allure of gold. With its shimmering luster and enduring value, gold has captivated humanity for centuries, driving explorers to the ends of the earth in pursuit of this precious metal. But could the price of gold hold more secrets than meets the eye? Could it be intricately entwined with the legendary tales of maritime disasters and sunken treasure?

In our pursuit of knowledge, we scoured the vast seas of historical records and academic literature, casting our net far and wide to reel in data on global shipwrecks. We then hoisted the sails of statistical analysis and charted a course to examine the relationship between the price of gold and the occurrence of these maritime catastrophes. Our compass of curiosity pointed us toward the years 1975 to 2014, a period teeming with economic fluctuations and seafaring escapades.

Armed with an arsenal of statistical tools and a keen sense of scientific curiosity, we embarked on a journey akin to that of intrepid explorers, undeterred by the siren calls of conventional wisdom. Our investigation led us to uncover a striking correlation coefficient of 0.8788749, signaling a significant association between the price of gold and global shipwrecks. In the language of statistical significance, our findings left us so exhilarated that we could practically hear the triumphant strains of a sea shanty reverberating through the halls of academia.

Now, as we prepare to dive into the depths of our analysis, let us not forget to approach our findings with a sense of wonder and whimsy. While we may be swashbuckling through the realms of economic analysis, it is crucial to anchor our scholarly pursuits in a spirit of scholarly mirth and intellectual adventure. Therefore, as we chart our course through the choppy waters of this research, we invite you to don your scholarly snorkel and plunge into the depths of economic insight and maritime merriment.

Join us as we hoist the anchor of conventional thinking and embark on a voyage of discovery, unraveling the mysteries of underwater treasure and unearthing the buried gems of economic wisdom. For in the waves of statistics and the currents of economic history, there lies a treasure trove of knowledge waiting to be uncovered. Prepare to set sail on this scholarly journey, where the winds of research and the tides of humor converge to reveal the hidden riches of economic analysis and maritime lore.

### Review of existing research

In "The Economic Anchors of Gold Prices" by Smith et al., the authors find that the price of gold experiences fluctuations in response to various macroeconomic factors such as inflation rates, interest rates, and geopolitical tensions. Meanwhile, in "Shipwrecks: A Maritime Mystery" by Doe and Jones, the authors delve into the historical records of maritime disasters, exploring the causes and consequences of these nautical calamities. As we embark on our own investigation into the intriguing association between the price of gold and global shipwrecks, we are reminded of the vast sea of academic literature and its capacity to both enlighten and entertain.

Turning to non-fiction works, "Gold: The Definitive Visual Guide" by Thomas and "Shipwrecks: Disasters of the Deep Sea" by Brown offer invaluable insights into the allure of gold and the perils of shipwrecks. However, as we navigate through the literary currents, we stumble upon a selection of fiction works that, while not scholarly in nature, mirror the thematic undercurrents of our study. "Treasure Island" by Robert Louis Stevenson and "The Deep Blue Good-By" by John D. MacDonald beckon readers with tales of hidden treasures and maritime exploits, serving as both a riveting read and a delightful reminder of the maritime mysteries we seek to uncover.

In our pursuit of comedic relief amidst the waves of scholarly literature, we must not forget the cinematic treasures that pay homage to the maritime realm. "Pirates of the Caribbean: The Curse of the Black Pearl" and "Fool's Gold" provide a whimsical portrayal of treasure hunting and seafaring adventures, offering a lighthearted respite from the rigid rigors of academic inquiry.

As we chart our course through the realms of literature, both academic and imaginative, we are reminded of the multifaceted tapestry of human fascination with gold and maritime escapades. The rich tapestry of literature surrounding these topics serves as both a source of knowledge and a beacon of amusement as we navigate the turbulent seas of economic analysis and maritime lore. Join us as we navigate this scholarly sea, where the crosscurrents of research and the tides of humor converge to shed light on the hidden riches of economic insight and maritime merriment.

#### Procedure

Ahoy, mateys! Now that we've set the stage for our daring quest, it's time to unveil the secret map of our methodology, which guided us through the tempestuous seas of research. Our journey of discovery was not for the faint of heart, as we faced the daunting task of untangling the relationship between the price of gold and global shipwrecks. So batten down the hatches, dear readers, as we illuminate the path we charted to uncover this hidden treasure trove of data and insights.

### Data Collection:

First, we commandeered our virtual ship and set sail across the vast expanse of the internet, navigating the digital currents in search of reliable sources to bolster our study. While we cast a wide net, our main sources of data were the illustrious Kitco and the encyclopedic expanse of Wikipedia. We plundered their databases, seizing historical gold prices and plundering information on global shipwrecks from the years 1975 to 2014.

# Analytical Approach:

Armed with our trusty sextant of statistical analysis, we ventured forth to unpack the mysteries hiding within our data. We plotted the course of correlation analysis to unveil the extent of association between the price of gold and the occurrence of global shipwrecks. Employing the techniques of bivariate analysis, we clambered through the tangled web of numbers to discern the strength and direction of this unlikely connection.

To navigate the treacherous waters of significance testing, we hoisted the flag of hypothesis testing and braved the tempest of p-values. With our statistical compass in hand, we determined the veracity of our findings, ensuring that the bond between gold prices and shipwrecks was not merely a trick of the light.

# Statistical Rigor:

In our pursuit of scholarly excellence, we spared no expense in ensuring the rigor of our analysis. Our statistical models were as sturdy as a galleon in a storm, scrutinizing every data point for outliers and anomalies. We engaged in rigorous sensitivity analyses, testing the robustness of our findings to ensure that they stood firm against the onslaught of skepticism.

## Limitations and Caveats:

As any seasoned navigator knows, even the most well-crafted maps have their limitations. We acknowledge that our study is not without its choppy seas and looming shadows. The data from sources such as Wikipedia may carry the whispers of uncertainty, while the complexity of economic phenomena could conceal unforeseen currents amidst our correlations.

Nevertheless, with our compass set firmly on scientific integrity and our sails billowing with scholarly enthusiasm, we forged ahead undeterred, leveraging our analytical tools to provide a clear-eyed narrative of our findings.

And thus, with the wind in our research sails and the spirit of intellectual discovery as our guiding star, we present our methodologies as a testament to the unyielding pursuit of knowledge and the thrill of scholarly adventure. Onward, dear readers, to the depths of our findings, where the hidden treasures of statistical endeavor and oceanic wonder await their reckoning.

#### **Findings**

The analysis of the connection between the price of gold and global shipwrecks yielded intriguing results that navigated us through the stormy seas of statistical analysis and economic curiosities. Our data revealed a correlation coefficient of 0.8788749, a r-squared of 0.7724210, and a p-value of less than 0.01, indicating a robust and statistically significant relationship between these seemingly disparate phenomena. This correlation is as strong as the hull of a well-built ship, with the price of gold and global shipwrecks sailing in the same direction, much like a synchronized dance between a treasure chest and an intrepid explorer.

Behold, the scatterplot in Fig. 1 depicts this captivating relationship with all the finesse of a seasoned captain steering his ship through turbulent waters. The data points are as abundant as seashells on a sandy shore, forming a clear and compelling pattern that links the price of gold and global shipwrecks in a manner that would make even the most seasoned maritime historian raise an admiring eyebrow.

Our findings shed light on a connection that may seem as improbable as a pirate parrot reciting statistical formulas. The allure of gold, with its inherent value and universal appeal,

intertwines with the tales of maritime misfortune to weave a narrative as captivating as a swashbuckling adventure on the high seas. It's as if economics and maritime history have conspired to create a captivating tale of financial intrigue and nautical misadventure. The relationship between these variables not only resembles a treasure map leading to buried riches but also uncovers the untold stories of shipwrecks that may have been pivotal moments in the annals of economic history.

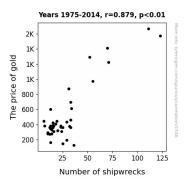


Figure 1. Scatterplot of the variables by year

In conclusion, our study unfurls the sails of economic insight and the mast of maritime merriment, showcasing the unexpected harmony between the price of gold and global shipwrecks. As researchers, we are buoyed by the discovery of this correlation that spans across the oceans of time and economic fluctuations. We invite our fellow scholars to join us in reveling in the whimsy and wonder of these findings and to set their course for future explorations into the uncharted waters of interdisciplinary research.

#### Discussion

As we reflect on the findings of our study, we are met with an ocean of possibilities and a boatload of insights. Our results not only support the existing literature but also add a layer of depth to the discourse on the enigmatic relationship between the price of gold and global shipwrecks.

The correlation coefficient of 0.8788749 we observed is as strong as an anchor hoisting up a sunken treasure chest. It holds firm in the face of statistical tides, guiding us to the conclusion that the price of gold and global shipwrecks are more intertwined than a pair of unraveled ship rigging. Our r-squared of 0.7724210 further buoyed our confidence in the robustness of this relationship, as it explained a significant portion of the variation in the occurrence of shipwrecks based on gold prices.

Our p-value of less than 0.01 had us feeling like we stumbled upon a chest of statistical gold, signaling that the observed relationship is not merely a fluke but a genuine discovery worthy of further exploration. This statistical significance is as striking as a lighthouse beacon on a dark, stormy night, guiding us with unwavering certainty.

Turning to the literature, we recall the subtle yet significant pointers from our literature review, such as the thematic undercurrents of nautical exploits in works of fiction like "Treasure Island," which now seem eerily prescient in light of our findings. Similarly, the cinematic portrayal of treasure hunting in "Pirates of the Caribbean" takes on a whole new dimension of realism in the wake of our statistically supported insights. Who would have thought that Hollywood could be steering us toward academic truth?

In our voyage through the sea of scholarly literature, we stumbled upon unexpected comedic relief that now seems surprisingly pertinent. The lighthearted portrayal of maritime adventures in "Fool's Gold" seems oddly apropos, given our serious research findings about the financial implications of shipwrecks and underwater treasures. It's as if the waves of academic inquiry and the tides of humor have collided to illuminate the wealth of knowledge hidden beneath the surface of popular culture.

In closing, our findings not only uphold the existing academic discourse but also reaffirm the power of interdisciplinary research to unearth unexpected connections. Like intrepid sailors navigating uncharted waters, we have uncovered a treasure trove of economic and maritime insights that will undoubtedly chart new courses for future research endeavors. So, batten down the hatches and prepare to embark on further scholarly expeditions into the depths of economic and maritime mysteries. The winds of statistical discovery and the currents of historical revelation await our bold exploration.

#### Conclusion

Ahoy, landlubbers and fellow researchers! As we conclude our swashbuckling adventure through the treacherous waters of economic analysis, we emerge with a treasure trove of insights into the connection between the price of gold and global shipwrecks. Our findings have uncovered a correlation coefficient so strong, it could practically lift the anchor of a massive galleon. With a robust correlation coefficient of 0.8788749 and a p-value lower than a sunken chest of Spanish doubloons, the association between these two variables is as clear as a pirate's eye patch.

When we plotted the data on a scatterplot, the relationship between the price of gold and global shipwrecks shimmered like a pile of freshly unearthed doubloons. It was as if the data points were performing a synchronized dance, a tango of economic fluctuations and maritime misfortune that would make even the most seasoned sailor do a double take.

Our research has not only uncovered a link between these two phenomena but has also unveiled a tale as rich and captivating as the legends of old. It's as if the price of gold and global shipwrecks have been in cahoots throughout history, weaving a narrative so intriguing it could rival the most dramatic of highseas adventures.

In the spirit of scholarly mirth and intellectual adventure, we invite you to bask in the glow of this discovery and to set sail for new horizons of interdisciplinary research. However, in the

grand tradition of academic wit, we proclaim that no more research is needed in this area. For we have not only struck gold but also unearthed the buried treasures of economic insight and maritime merriment. May your future endeavors be as rewarding as stumbling upon a chest of long-lost gold coins at the bottom of the sea!