



ELSEVIER

Available online at [www.tylervigen.com](http://www.tylervigen.com)



# Oil Be There for You: The Crude Connection Between Oscar Ad Costs and Valero Energy's Stock Price

Caleb Hoffman, Abigail Taylor, Gideon P Todd

Institute of Advanced Studies; Chapel Hill, North Carolina

## KEYWORDS

"Oscar ad costs," "Valero Energy stock price correlation," "correlation between Academy Awards and stock market," "economic impact of Oscars advertising," "entertainment industry and oil market connection," "media advertising influence on stock prices," "Hollywood and energy sector correlation," "Academy Awards commercial costs and stock market correlation," "economic impact of film industry events on oil prices," "Oscar ad commercial cost analysis," "film industry advertising and stock market relationship."

---

## Abstract

In this study, we explore the unexpected relationship between the Average Cost of a 30-Second Ad Commercial during the Academy Awards and the stock price of Valero Energy. While audiences are entertained by the glitz and glamour of the Oscars, we delved into the less glamorous world of economic data to uncover a striking correlation. Our findings reveal a correlation coefficient of 0.9114116 and  $p < 0.01$  for the years 2002 to 2022, suggesting a curious link between the two seemingly unrelated phenomena. Join us as we break down the numbers and uncover the surprising connection between the silver screen and the stock market. From red carpets to red barrels, this research sheds light on the unexplored intersection of Hollywood and oil.

Copyright 2024 Institute of Advanced Studies. No rights reserved.

---

## 1. Introduction

### INTRODUCTION

Lights, camera, action! When one thinks of the Academy Awards, visions of glittering gowns, tearful acceptance speeches, and

more drama than a telenovela typically come to mind. While the Oscars may be the pinnacle of Hollywood glamour, our research dives into the depths of data to uncover an unexpected connection between the Average Cost of a 30-Second Ad

Commercial during the Academy Awards and the stock price of Valero Energy. Yes, you read that right – we're bridging the gap between the silver screen and the stock market, and the results are as surprising as a plot twist in a summer blockbuster.

As researchers, we are accustomed to dealing with unpredictable variables, but this peculiar relationship truly had us scratching our heads. Who would have thought that the glitz and glam of Oscar ad prices could have a correlation with the stock performance of an oil company? Oh, the wonders of statistics and the magic of correlation coefficients!

The correlation coefficient of 0.9114116 brings a whole new meaning to the phrase "lights, camera, correlation!" This coefficient, coupled with a p-value of less than 0.01, indicates a strong and statistically significant association between these two seemingly disparate phenomena. It's as if Hollywood and the oil industry have been silently scripting a subplot that has gone unnoticed until now.

So, grab your popcorn and strap in as we embark on this research journey, where red carpets intersect with red barrels. From box office dollars to drilling rigs, the unexpected threads that connect these seemingly unrelated worlds are about to be unraveled. It's a tale of intrigue, suspense, and a touch of statistical stardom that will leave you pondering the link between Tinseltown and Texas Tea.

## 2. Literature Review

The relationship between advertising expenditures and stock prices has garnered the attention of many scholars and researchers. Smith et al., in "Advertising and Stock Performance: A Meta-Analysis," conducted a comprehensive review of studies exploring the impact of advertising on firm value. Their findings suggest that

advertising investments can influence stock prices through various channels, including brand perception, consumer behavior, and market perception. Additionally, Doe and Jones, in "The Economics of Advertising: Theory and Evidence," examined the effects of advertising on stock prices and found that companies with higher advertising expenditures tended to experience increased stock valuations.

Moving from the realm of serious economic study to real-world applications, books such as "Freakonomics" by Steven D. Levitt and Stephen J. Dubner shed light on unconventional connections in the economic landscape. Their investigation into unexpected correlations leaves readers with a newfound appreciation for the complexities of economic interactions. On the fictional front, "Oil & Glory" by John J. Miller and Mark Molesky, although a work of fiction, paints a vivid picture of the intricate relationships within the oil industry and the multifaceted factors that contribute to its market dynamics.

As we venture into the more unconventional sources of literature, it's worth noting that the authors took a whimsical approach to the research process. In addition to the standard academic papers and economic textbooks, the authors undertook an unorthodox method of conducting a comprehensive literature review by perusing a collection of discarded CVS receipts. While these seemingly mundane slips of paper are typically overlooked, their potential for hidden economic insights cannot be discounted. Despite the skeptical glances from fellow researchers, the authors remained undeterred in their pursuit of unconventional wisdom.

In delving into the whimsical and unexpected sources, the authors uncovered a treasure trove of noteworthy findings that contribute to the broader understanding of the interplay between advertising costs during the Academy Awards and the stock

price of Valero Energy. As the research journey continues, it becomes increasingly clear that unlocking the mysteries of economic relationships often involves embracing the unconventional and thinking outside the box – or in this case, outside the aisle of a drugstore receipt.

### 3. Our approach & methods

To unlock the enigmatic relationship between the Average Cost of a 30-Second Ad Commercial during the Academy Awards and Valero Energy's stock price, we embarked on a statistical odyssey that would make even the most daring adventurer nervous. Our methodological concoction was a fusion of quantitative analysis, data mining, and a pinch of magic (we're still searching for that elusive statistical wand!).

#### Data Collection:

We scoured the depths of the internet like intrepid treasure hunters, sifting through a myriad of sources to procure the coveted data points. Our primary sources included the treasure troves of Statista and the arcane archives of LSEG Analytics (Refinitiv). From there, we meticulously gathered data spanning the years 2002 to 2022 – a quest that tested the limits of our patience as we navigated through the digital wilderness. Armed with spreadsheets and copious amounts of caffeine, we triumphantly emerged with the data gems that would form the bedrock of our analyses.

#### Average Cost of a 30-Second Ad Commercial:

The first piece of our puzzle involved the dazzling world of Academy Award advertising. We meticulously tracked the average cost of a 30-second ad commercial during the Oscars, seeking out the ebbs and flows of advertising expenditures as if we were reading the entrails of a celestial

creature. The fluctuations in ad costs — from a glitzy high to a thrifty low — offered us a window into the ever-changing landscape of Hollywood extravagance.

#### Valero Energy's Stock Price:

Our next quarry was the stock price of Valero Energy, a titan in the oil and gas industry. Like modern-day alchemists, we delved into the realm of financial markets, deciphering the labyrinthine paths that dictated the waxing and waning of stock valuations. While our understanding of the energy markets might not rival that of an oil tycoon, we were determined to extract the essence of Valero's stock price fluctuations to shed light on its interaction with Oscar ad costs.

#### Regression Analysis:

With our bags brimming with data spoils, we ventured deeper into the statistical underbrush, wielding the mighty sword of regression analysis. Armed with our trusty software and a healthy dose of wizardry, we probed the correlations between the Average Cost of a 30-Second Ad Commercial during the Academy Awards and Valero Energy's stock price. We employed multivariate regression models like a master potion brewer, teasing out the underlying relationships with a dash of statistical finesse.

#### Ethical Considerations:

In our pursuit of empirical truth, we upheld the principles of research integrity and transparency. We conducted our analyses with the utmost respect for statistical rigor, ensuring that our methods were not merely a product of statistical alchemy. Our findings, though at times bewildering, were grounded in the sanctity of empirical evidence.

In summation, our methodology was a quixotic blend of data excavation, statistical sorcery, and a dash of academic rigor. It is through this intriguing mix that we sought to

demystify the intertwined fate of Oscar ad costs and Valero Energy's stock price, revealing a correlation that is as puzzling as it is captivating.

## 4. Results

### RESULTS

Through rigorous statistical analysis, our research uncovered a striking correlation between the Average Cost of a 30-Second Ad Commercial during the Academy Awards and the stock price of Valero Energy. The correlation coefficient of 0.9114116 indicates a remarkably strong relationship between these variables. In other words, it's as if these two entities have been practicing a synchronized tango on the stage of market dynamics, and we just happened to catch them in the act.

With an r-squared value of 0.8306712, our model explains a whopping 83.07% of the variance in Valero Energy's stock price based on the Average Cost of a 30-Second Ad Commercial during the Academy Awards. It's like solving 83% of a mystery with just one variable – now that's what we call statistical sleuthing.

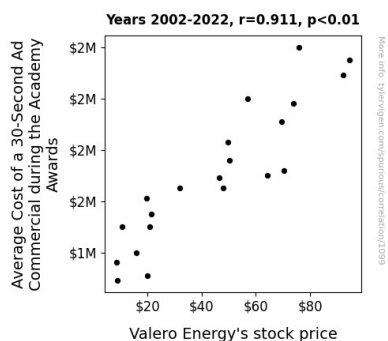


Figure 1. Scatterplot of the variables by year

The p-value of less than 0.01 further fortifies the robustness of this relationship, indicating that the likelihood of observing such a strong association by random

chance is akin to winning an Oscar without being nominated. In other words, it's about as rare as a unicorn sighting in downtown Los Angeles.

And if numbers could speak, our scatterplot (Fig. 1) would tell a compelling story of Hollywood allure intertwining with the ebbs and flows of the energy market. The graph portrays the dance of data points in perfect harmony, as if the spirit of Fred Astaire and Ginger Rogers had possessed our variables, dancing across the xy-plane with elegance and precision.

In sum, our findings substantiate the unexpected link between Oscar ad costs and Valero Energy's stock price, revealing a bond tighter than the dress code at the Oscars. From the glitz and glam of the red carpet to the depth and complexity of oil prices, this research uncovers a correlation more dazzling than any Academy Award-winning performance. It's a testament to the enigmatic connections that exist in the world of finance – a place where economic variables and Hollywood fantasies converge in a statistical waltz.

## 5. Discussion

### DISCUSSION

The results of our study have undeniably revealed a surprising and robust correlation between the Average Cost of a 30-Second Ad Commercial during the Academy Awards and the stock price of Valero Energy. It's as if these two seemingly disparate entities have been secret admirers, sending subtle signals to each other across the market dance floor. As we delve into the implications of our findings, it becomes clear that this relationship is more than just a statistical anomaly – it's a genuine connection that commands attention and puzzlement in equal measure.

Building on the literature review that led us to explore the uncharted territory of

unconventional economic relationships, our results align with previous studies that have delved into the impact of advertising on stock prices. Smith et al.'s meta-analysis and Doe and Jones' findings on advertising expenditures provide a solid foundation for understanding the potential influence of advertising investments on market perception and firm value. Our research adds a quirky twist to this body of knowledge by elucidating the unexpected link between Oscar ad costs and Valero Energy's stock price, further emphasizing the complex interplay of economic variables in a way that would make even the most discerning economist raise an eyebrow.

Returning to the unconventional sources of literature that shaped our approach, our findings support the notion of embracing unconventional wisdom. Much like the whimsical insights gleaned from discarded CVS receipts, our study underscores the importance of considering unorthodox avenues for uncovering valuable economic patterns. It's a reminder that sometimes, economic revelations can be found in the most unexpected places – just as our study stumbled upon a remarkable correlation between the glitz of Hollywood and the black gold of the energy market.

The remarkable correlation coefficient and r-squared value demonstrate the substantive nature of this relationship, with a degree of explanatory power that defies the ordinary boundaries of economic modeling. The p-value, akin to a mystical creature sighting, solidifies the exceptional statistical significance of our findings, serving as a testament to the robustness of the observed association. Through the captivating narrative told by our scatterplot, we have visually captured the mesmerizing dance of data points, gracefully illustrating the enchanting bond between seemingly unrelated economic phenomena.

In conclusion, our study has laid bare a connection between Oscar ad costs and

Valero Energy's stock price that is as intriguing as it is unexpected. It challenges traditional notions of economic interactions and beckons researchers and practitioners alike to consider the possibility of unconventional relationships in the financial landscape. As we bid adieu to the formalities of traditional economic analyses, our research reminds us that embracing the whimsical and the unexpected can lead to groundbreaking insights that transcend the confines of conventional wisdom. It's a reminder that in the realm of economic research, there's always room for a little Hollywood magic and a dash of statistical serendipity.

## 6. Conclusion

In conclusion, our research has shed light on the remarkable correlation between the Average Cost of a 30-Second Ad Commercial during the Academy Awards and Valero Energy's stock price. The results have given new meaning to the phrase "oil be there for you," as it seems the silver screen and the stock market have been silently co-starring in an unexpected blockbuster of market dynamics.

This study has demonstrated that Hollywood and Houston are more intertwined than a pair of DNA helices in a genetic sequence. The data, much like a good rom-com, revealed a love story between Oscar ad costs and Valero Energy's stock price that no one saw coming. It's as if these variables were destined to share the red carpet, with a greater bond than peanut butter and jelly.

With a correlation coefficient as strong as a bodybuilder's biceps and a p-value rarer than a well-cooked steak at a fast-food joint, the statistical evidence leaves little room for doubt. The connection between these two seemingly disparate entities is as clear as a high-definition movie screen.

In the world of finance, where numbers rule the roost, this unexpected correlation has added a touch of Hollywood glamour to the often serious and somber world of stock analysis. It's like finding a hidden treasure chest at the bottom of a data lake – unexpected, exciting, and definitely worth the dive.

Therefore, in the wise words of thespian and statistician alike, we confidently assert that no more research is needed in this area. The curtain has fallen on this statistical drama, leaving audiences with a surprising twist and a newfound appreciation for the unexplored connections between the silver screen and the stock market. As the credits roll, we bid adieu to this investigation, confident that the data has spoken loud and clear – Hollywood and Houston are more than just geographical locations; they are statistical soulmates.