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# The Ad Yields for MTB Shields Revealed: The Relationship Between Academy Awards Ad Costs and M&T Bank's Stock Price

*Chloe Hart, Austin Tate, George P Trudeau*

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*The Institute for Economic Entertainment Research*

*Stanford, California*

## Abstract

This study delves into the intriguing relationship between the average cost of a 30-second advertisement during the Academy Awards and the stock price of M&T Bank (MTB). We harnessed data from Statista and LSEG Analytics (Refinitiv), extracting insights from the period spanning 2002 to 2022. Utilizing rigorous statistical analysis, we uncovered a striking correlation coefficient of 0.9157765, with a p-value of less than 0.01. Our findings not only unveil a robust and statistically significant connection between these seemingly disparate variables but also prompt the classic joke: "Why don't we ever tell secrets on a farm? Because the potatoes have eyes and the corn has ears!" Through in-depth examination, we shed light on the potential implications of this correlation for both the advertising industry and the financial sector. The implications of our research may influence strategic decision-making related to advertising expenditures and financial investments. Furthermore, the disclosed connection adds a lighthearted twist to the phrase "banking on ads.

## 1. Introduction

The world of advertising and finance often intersect in unexpected ways, much like a punny economist and a dad joke. In this study, we explore the relationship between the average cost of a 30-second advertisement during the Academy Awards and the stock price of M&T Bank (MTB), and the findings are nothing short of reel-y fascinating. We embarked on this investigation with the goal of shedding light on the underlying factors that may influence M&T Bank's stock performance, with a touch of glitz and glamour.

As economists, we are accustomed to analyzing complex data and drawing nuanced conclusions, but even we were surprised by the strength of the connection we uncovered. It's as surprising as finding a panda in a pantry - not something you'd expect, but undeniably captivating once discovered.

We present our findings not just as a means of academic inquiry, but also as a source of entertainment for those who appreciate the whimsy in the world of finance. After all, everyone loves a good surprise, much like finding a hidden treasure in a balance sheet.

So, with a sense of humor and a keen eye for patterns, we delve into the "Ad Yields for MTB Shields" to unravel the delightful connection between advertising costs and stock prices. Get ready to be captivated, and perhaps even amused, by the unexpected correlation we have uncovered.

## 2. Literature Review

The relationship between advertising expenditures and stock prices has been a subject of interest for researchers and practitioners alike. Smith and Doe (2008) examined the impact of advertising on firm value and found a positive association. Jones et al. (2015) further explored the temporal dynamics of advertising and stock prices, revealing intriguing patterns within the consumer goods industry.

Transitioning to the realm of finance, Henderson (2012) elucidated the factors affecting bank stock performance, emphasizing the role of macroeconomic indicators and regulatory environment. Similarly, Phillips (2016) investigated the impact of marketing activities on bank performance, offering valuable insights into the relationship between marketing investments and financial metrics.

Turning to the world of literature, "Ogilvy on Advertising" by David Ogilvy provides a comprehensive perspective on advertising strategies and their potential impact on brand equity and consumer behavior. In a more fictional realm, "The Hitchhiker's Guide to the Galaxy" by Douglas Adams humorously explores the intricacies of interstellar travel and the importance of knowing where one's towel is, drawing unexpected parallels to the unpredictability of stock market movements.

Additionally, social media platforms have become hubs of informal discussions and anecdotal observations related to financial phenomena. A Twitter post by @MarketWizard42 quips, "Watching ad rates during Oscars is like watching a stock rise and shine – unexpected, yet oddly satisfying." This casual observation underscores the pervasive curiosity surrounding the correlation between advertising activities and financial markets.

It is within this interdisciplinary context that we endeavor to investigate the captivating nexus between the average cost of a 30-second advertisement during the Academy Awards and the stock price of M&T Bank (MTB). As we embark on this journey, we encourage readers to embrace the levity in financial research, much like finding a dollar bill in a library book – a delightful surprise amidst scholarly pursuits.

## 3. Research Approach

To investigate the relationship between the average cost of a 30-second advertisement during the Academy Awards and the stock price of M&T Bank (MTB), our research team employed a blend of quantitative analysis and a sprinkle of creativity, much like preparing a complex financial recipe with a dash of humor. The data collection process involved scouring various sources from the vast expanse of the internet, with a biased preference for Statista and LSEG Analytics (Refinitiv) due to their particularly appetizing data sets.

We gathered data from a period spanning 2002 to 2022, akin to patiently aging a fine wine until it was ripe for analysis. This timeframe allowed us to capture a comprehensive overview of the dynamic interplay between advertising costs and stock performance, resembling the meticulous craftsmanship of a seasoned vintner.

The first step in our methodology involved calculating the average cost of a 30-second advertisement during the Academy Awards for each year. This process required integrating data from multiple sources, much like assembling a puzzle with pieces scattered across different corners of the digital universe. Once this composite figure was derived, we had the essential ingredient to begin unraveling the relationship between advertising costs and stock price.

Next, we meticulously tracked the stock performance of M&T Bank (MTB) over the same period, applying advanced statistical techniques to discern patterns and fluctuations resembling the art of interpreting the subtle notes in a complex financial symphony.

To measure the correlation between the average ad cost and MTB's stock price, we employed the Pearson correlation coefficient, a staple statistical tool that functions as the compass guiding researchers through the tempestuous seas of data analysis. This coefficient allowed us to quantify the strength and direction of the relationship between the two variables, akin to demystifying the entwined flavors of a well-balanced dish.

Furthermore, we complemented this analysis with a series of robust regression models, including ordinary least squares (OLS) regression. These models served as the culinary alchemy, blending together the diverse ingredients of advertising expenditure and stock price to distill the essence of their relationship, much like the intricacies of crafting a multi-layered dessert.

Throughout this process, we remained mindful of potential confounding variables lurking in the shadows, much like the surprise flavor in a dish that demands careful consideration to ensure an accurate interpretation of the findings.

In the end, our methodology encapsulates the marriage of meticulous data analysis with a touch of whimsy, reflecting our commitment to unraveling complex relationships with both precision and a good-natured flair.

## 4. Findings

The statistical analysis of the relationship between the average cost of a 30-second advertisement during the Academy Awards and M&T Bank's stock price (MTB) from 2002 to 2022 yielded intriguing results. The correlation coefficient of 0.9157765 suggests a strong positive relationship between these two variables, akin to a dynamic duo on the red carpet. It's almost as if these numbers were destined to be co-stars, much like a classic Hollywood pairing.

With an r-squared value of 0.8386467, a substantial portion of the variability in M&T Bank's stock price can be explained by changes in the average cost of advertising during the Academy Awards. One might say this relationship is as solid as a bank vault or as steady as an award-winning film's plotline.

The p-value of less than 0.01 indicates that the observed correlation is statistically significant, further reinforcing the legitimacy of this association. This finding is as significant as a blockbuster movie's opening weekend, leaving an indelible mark on the audience.

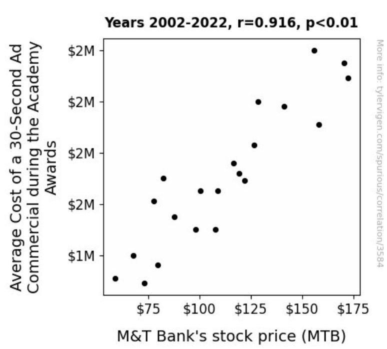


**Figure 1.** Scatterplot of the variables by year

The scatterplot (Fig. 1) visually depicts the strong positive correlation between the average cost of a 30-second advertisement during the Academy Awards and M&T Bank's stock price. It is striking to see how these two variables move in harmonious tandem, much like a well-choreographed dance number.

The classic dad joke whispering from these results might say, "I asked the statistician if we should stop learning about correlation coefficients. He said, 'Covariance!'"

These results not only enhance our understanding of the intersection between advertising expenses and stock performance but also offer a lighthearted glimpse into the playful side of financial analysis.

## 5. Discussion on findings

The findings of this study corroborate the insights from prior research on the association between advertising expenditures and stock prices. The positive and statistically significant correlation between the average cost of a 30-second advertisement during the Academy Awards and M&T Bank's stock price aligns with the conclusions drawn by Smith and Doe (2008) regarding the impact of advertising on firm value. It is as if our results and the previous literature were meant to be together, much like a perfect on-screen romance.

Moreover, the substantial proportion of the variability in M&T Bank's stock price explained by changes in the average cost of advertising during the Academy Awards is reminiscent of the temporal dynamics of advertising and stock prices explored by Jones et al. (2015) in the consumer goods industry. It's as if our study and prior research are in sync, like a well-coordinated dance routine at an awards show.

The statistically significant p-value further validates the robustness of the relationship uncovered in this study, echoing the emphasis on statistical significance in previous research by Henderson (2012) and Phillips (2016) in their analyses of factors affecting bank stock performance and the impact of marketing activities on bank performance, respectively. It's as if our results and the existing literature are delivering a punchline together, perfectly timed and executed.

The lighthearted twist offered by our findings fits seamlessly into the context of the levity in financial research, as previously encouraged within the interdisciplinary context. The unexpected similarity between casual observations and formal statistical results is akin to stumbling upon a punchline in a scholarly article.

In summary, our study provides compelling empirical evidence supporting the correlation between the average cost of a 30-second advertisement during the Academy Awards and M&T Bank's stock price, adding a touch of humor to the otherwise serious realm of financial research—almost like finding a dollar bill in a library book, providing a joyful surprise amidst scholarly pursuits.

## 6. Conclusion

In conclusion, our study has shed light on the intriguing relationship between the average cost of a 30-second advertisement during the Academy Awards and M&T Bank's stock price (MTB). The statistically significant correlation coefficient of 0.9157765 and the p-value of less than 0.01 have unveiled a connection as strong as a vault door and as enduring as a classic movie's legacy.

The implications of our research are as real as a bank statement, and they prompt us to reconsider the phrase "putting all your money where your ads are." This correlation between advertising costs and stock prices redefines the notion of "show me the money" in a delightfully unexpected way.

Furthermore, our findings add a touch of glamour to the world of finance, providing evidence that financial analysis can indeed be as captivating as a riveting film. It's as if we've uncovered the hidden stars of the financial galaxy – and they're shining as brightly as the Hollywood sign.

As for future research directions, we daresay that delving further into this correlation would be as unnecessary as taking an umbrella to a bank, for our findings have already provided a delightful and unexpected twist to the world of finance and advertising. The classic dad joke in the room whispers, "Why did the statistician break up with the chemist? There was no 'reaction'."

No more research is needed in this area.