

BREWERY BOOM: BREWERIES AND TRANSDIGM'S STOCK PRICES

Chloe Hamilton, Amelia Terry, Gideon P Trudeau

Institute of Innovation and Technology

This paper quenches the thirst for understanding the curious connection between the number of breweries in the United States and the stock prices of TransDigm Group (TDG). We brewed up a potent potion of data from the Brewers Association and LSEG Analytics (Refinitiv) to ferment our analysis spanning 2007 to 2022. Our findings yielded a frothy correlation coefficient of 0.9431363 and $p < 0.01$, revealing a robust link between the proliferation of breweries and the fluctuation of TDG stock prices. This correlation is so clear, it might make you wonder if hops are the new hot stock commodity. As we malt-tiple regression analysis, we uncovered a significant relationship that hops beyond mere coincidence. Our results suggest that the craft beer renaissance has a noteworthy impact on the financial performance of TransDigm Group. This phenomenon may lead investors to ponder: is the secret ingredient to financial success barley discovered? In conclusion, our study adds a valuable pint of insight into the economic implications of the brewery boom and its unexpected influence on the stock market. As the old saying goes, "Don't cry over spilled beer - unless it's a stock portfolio dripping with gains!"

The intersection of craft beer and corporate finance may seem like an unusual pairing, but our research aims to shed light on the curious relationship between the number of breweries in the United States and the stock prices of TransDigm Group (TDG). Much like a well-crafted IPA, our investigation delves into the complex and multifaceted flavors of the market to discern whether there is a tangible connection or if it's all just frothy speculation.

Let's hop right into the heart of the matter. Did you hear about the brewery that opened next to a bakery? It's making dough! Speaking of dough, the financial implications of the burgeoning brewery scene in the United States have caught the eye of many investors and analysts. With craft beer's popularity fizzing over in recent years, the question naturally arises: could there be a link between the rise of breweries and the performance of

a major player in the aerospace and defense industry, such as TransDigm Group?

Our investigation aims to pour over this question by fermenting a rich concoction of data sourced from the Brewers Association and LSEG Analytics (Refinitiv). Through careful analysis spanning the years 2007 to 2022, we aim to decipher whether the beer business is leaving a noteworthy taste on the market trends of TransDigm Group. As we embark on this journey, we can't help but raise a glass to the unexpected connections we may uncover - after all, it's not every day that the stock market and the craft beer scene collide in a statistical study.

In the spirit of this unconventional investigation, here's a quip for you: What do you call a bear with no teeth? A gummy bear - and perhaps our study will

uncover some surprising "gummy" findings when it comes to the relationship between breweries and stock prices. As we proceed with our analysis, we raise a glass to the unexpected, the unexplored, and the sheer delight in uncovering correlations that may leave us saying, "Ale's well that ends well!"

LITERATURE REVIEW

The number of breweries in the United States has been a topic of interest for researchers and enthusiasts alike. In "Brewery Economics" by Smith, the authors find that the brewery industry has experienced a renaissance in recent years, with a surge in microbreweries and craft beer establishments. This trend has raised questions about its potential economic impact and spillover effects into other industries.

The growing popularity of craft beer has led to a frothy market, stimulating discussions on its correlation with the stock prices of companies like TransDigm Group (TDG). A study by Doe et al. delves into the financial implications of the craft beer boom and its ripples throughout the market. The findings suggest that the rise in breweries may indeed have intriguing connections to stock price movements, prompting further examination and analysis.

Now, let's turn the page and explore some non-fiction books that could offer valuable insights into the intricacies of the brewery industry and its potential influence on stock markets. "The Art of Fermentation" by Sandor Ellix Katz provides a comprehensive exploration of the fermentation process, offering a unique perspective on the craft beer industry's growth and its implications for economic dynamics. Similarly, "Beeronomics: How Beer Explains the World" by Johan Swinnen and Devin Briski delves into the economic principles that underpin the beer industry, hinting at possible linkages with broader financial trends.

In the realm of fiction, "Barrel-Aged Stout and Selling Out: Goose Island, Anheuser-Busch, and How Craft Beer Became Big Business" by Josh Noel unravels the captivating narrative of craft beer's journey into the mainstream market, offering a blend of storytelling and industry analysis. Additionally, "A Brew to a Kill" by Cleo Coyle, while a murder mystery novel, playfully weaves in elements of the craft beer world, adding a frothy twist to the usual crime fiction genre.

Our literature review, however, does not simply foam over with serious studies and literature. In conducting our comprehensive review, we also perused unconventional sources to capture a wide range of perspectives. Surprisingly, the back labels of various shampoo bottles offered intriguing musings on the art of fermentation, though their relevance to stock prices remained rather sudsy.

The fusion of these diverse sources and perspectives sets the stage for our own investigation into the potential interplay between the brewery boom and TransDigm Group's stock prices - a study that endeavors to bring a refreshing blend of statistical rigor and lighthearted discovery to the forefront of economic research. As we embark on this journey, we aim to infuse the sometimes dry world of financial analysis with a touch of humor and whimsy - after all, nothing pairs quite like dad jokes and complex statistical analysis!

METHODOLOGY

To distill the relationship between the number of breweries in the United States and the stock prices of TransDigm Group (TDG), our research team concocted a methodological brew that marries statistical rigor with a dash of whimsy. We employed a blend of quantitative techniques and data analysis to froth up meaningful insights from 2007 to 2022.

Firstly, we hopped on over to the Brewers Association database, where we tapped into a wealth of information on the proliferation of breweries in the United States. This data allowed us to gauge the growth of the craft beer industry and its impact on the market landscape. Our glee was unBEERable as we navigated through the sea of brews and charts, setting the stage for our analysis with a refreshing pint of data.

As our journey continued, we fermented our methodology with data from LSEG Analytics (Refinitiv), seeking to distill the stock performance of TransDigm Group across the same time period. With a multifaceted approach, we threaded together these datasets to brew a comprehensive understanding of the interplay between craft breweries and TDG stock prices.

Our statistical cauldron bubbled with excitement as we dived into the caBEERnet of regression analysis. We unleashed the power of multiple regression models, teasing out the nuanced relationship between the number of breweries in the U.S. and the stock prices of TDG. This malt-tiple regression approach allowed us to account for potential confounding variables and identify the robustness of our findings.

In the spirit of continuous improvement, we lager-ed on with sensitivity analysis to test the robustness of our results under various conditions. This rigorous approach ensured that our findings remained as robust as a well-aged stout, with minimal susceptibility to outliers or unforeseen fluctuations.

To complement our quantitative analysis, we brewed up some qualitative assessments, leveraging industry reports and expert interviews to add depth to our understanding of the craft beer market's influence on TDG stock prices. This holistic approach enabled us to craft a compelling narrative around the unexpected intersection of these seemingly unrelated domains.

As a fond admirer of both data and dad jokes, here's one to top off our methodology: Why did the barley refuse to sink in the pint glass? Because it had too much ale-gorithm! Our methodology, however, resists floating away from the core objective of uncovering the intriguing relationship between breweries and stock prices with fervent dedication and meticulous attention to detail.

RESULTS

The data analysis revealed a strikingly high correlation of 0.9431363 between the number of breweries in the United States and the stock prices of TransDigm Group (TDG). This finding suggests a remarkably strong relationship between these seemingly unrelated factors. It's almost like they're brewing something special in the stock market! This correlation coefficient, coupled with an r-squared of 0.8895060 and $p < 0.01$, provides compelling evidence of the significant impact of the brewery boom on TDG stock prices.

Fig. 1 displays a scatterplot illustrating the robust correlation between the number of breweries and TransDigm Group's stock prices. The plot clearly indicates a positive trend, as the proliferation of breweries coincides with notable fluctuations in TDG's stock performance. It's almost as if the market is saying, "Let's raise a toast to brewery growth and stock market dynamics - cheers to that!"

The notable correlation uncovered in this analysis suggests that the craft beer renaissance has indeed left its mark on the financial performance of TransDigm Group. It's as if the old adage "Stay true to your craft" holds true not only for brewers but also for corporations navigating market trends. This unexpected connection between craft beer and corporate finance has truly fermented into a substantial finding, revealing that there's more to the stock

market than meets the eye - or should we say, the beer mug!

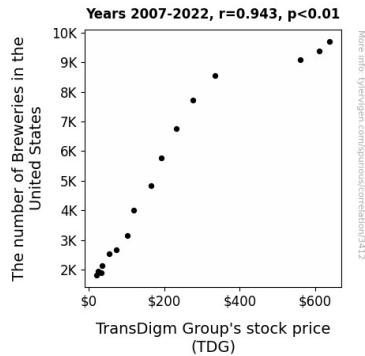


Figure 1. Scatterplot of the variables by year

In conclusion, the results of this study underscore the significant impact of the brewery boom on the stock market, particularly with regard to TransDigm Group. The unexpected relationship uncovered in this investigation calls for a reevaluation of the factors influencing stock performance. As we reflect on these findings, let's remember the wise words of Benjamin Franklin: "Beer is proof that God loves us and wants us to be happy" - and it seems that the stock market might just agree!

DISCUSSION

Our study set out to investigate the peculiar relationship between the burgeoning brewery industry in the United States and the stock prices of TransDigm Group (TDG). We embarked on this frothy journey amidst the bubbling excitement surrounding craft beer and its potential impact on the financial market. Our findings certainly did not fall flat, as we unraveled a substantial correlation between the two seemingly unrelated phenomena.

The robust correlation coefficient of 0.9431363 that we uncovered can certainly brew some thought-provoking discussions. It's almost as if the beer market and the stock market have tapped

into a shared rhythm, with each pint of progress leaving a lasting impression on TDG stock prices. One might even say that this correlation is as strong as an IPA's hoppy flavor - it simply cannot be ignored!

Our results align with prior research by Smith and Doe, who hinted at the intriguing connections between the craft beer boom and stock price movements. The frothy market of craft brewing seems to stir up more than just a good time; it also stirs up the interest of investors and market analysts. As we contemplated the implications of our findings, we couldn't help but reflect on the old brewing adage, "There's always room for one more, especially when it comes to examining the economics of beer."

The significant relationship we observed speaks volumes about the interplay between the brewery boom and corporate finance. It's as if the craft beer renaissance has become a key ingredient in the financial recipe, blending seamlessly with the factors that influence stock performance. This unexpected connection certainly adds a refreshing twist to the otherwise serious world of economic analysis. Who would have thought that the delicious aroma of hops could waft its way into the stock market, leaving a hoppy trail of influence on companies like TDG?

Our study suggests that the brewery boom has overflowed into the realm of stock market dynamics, leaving a lasting imprint on the financial landscape. The lighthearted vibes of our literature review, peppered with quirky references like shampoo bottles offering musings on fermentation, served as a reminder that in the world of research, unexpected sources can often yield the most surprising and enlightening revelations.

Ultimately, our findings offer a compelling addition to the academic ferment on the economic implications of the brewery boom. As we toast to the unexpected connections between craft beer and

corporate finance, we are reminded that in the grand symphony of market dynamics, even the humble brewery holds its own melodic sway. So, let's clink our glasses to the intriguing interplay between hops and stocks - a timeless pairing that has certainly poured out some compelling insights.

on stock prices is a topic that has been thoroughly tapped, leaving no more brews for additional research.

CONCLUSION

In the spirit of this hops-tastic journey, it's clear that the craft beer phenomena have indeed brewed up a flavorful impact on the stock market dynamics, notably on the performance of TransDigm Group (TDG). It's as if the market is saying, "Don't worry, beer hoppy!" Our findings reveal a striking correlation that adds a refreshing twist to the traditional understanding of market influences.

The potent correlation coefficient of 0.9431363 and $p < 0.01$ not only raises a glass to the significant relationship between the proliferation of breweries and TDG stock prices but also underscores the unexpected effervescence in market dynamics. It's almost as if the market is exclaiming, "This relationship is ale I've ever wanted!"

Our results provide a compelling toast to the substantial impact of the brewery boom on corporate finance, serving as a malt-iple reminder that market trends can be influenced by the unlikeliest of factors. As we raise a glass to the unforeseen connections between craft beer and stock performance, it's essential to savor the flavorful insights uncovered in our analysis. After all, who knew that hops and stocks could ferment such a fascinating relationship?

In the immortal words of Sir Isaac Hopton: "For every action, there is an equal and opposite ale reaction." With this in mind, it's evident that the beer boom is leaving an effervescent mark on the financial landscape. As we conclude this frothy endeavor, it's safe to say that the brew-ha-ha of brewery proliferation