

Brewing up Stock Success: The Fermentation of Breweries in the United States and Edwards Lifesciences' Stock Price

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ABSTRACT

Brewing up Stock Success: The Fermentation of Breweries in the United States and Edwards Lifesciences' Stock Price

This research paper investigates the relationship between the proliferation of breweries in the United States and the stock price of Edwards Lifesciences (EW), using data from the Brewers Association and LSEG Analytics (Refinitiv). We use statistical analysis to delve into the frothy question of whether the number of breweries can predict fluctuations in Edwards Lifesciences' stock price. Our findings reveal a correlation coefficient of 0.9007346 and $p < 0.01$ over the period from 2002 to 2022. Our results unfold the striking connection between the burgeoning brewery scene and the performance of Edwards Lifesciences' stock, providing a refreshing perspective on market dynamics. With this high correlation coefficient, one might say that the craft beer industry and Edwards Lifesciences' stock have taken a real "ale from the same brew," indicating a potential interconnectedness worth toasting. In conclusion, as the craft beer market continues to foam over, investors should keep an eye on the beer taps as well as the stock ticker for potential brewing profits.

Keywords:

Breweries in the United States, Edwards Lifesciences stock price, correlation between breweries and stock price, craft beer industry impact on stock market, brewers association data, LSEG Analytics stock data, market dynamics interconnectedness, brewery scene and stock performance, craft beer market and investments, financial analysis of breweries and stock prices

I. Introduction

The world of finance and the world of brews may seem like they belong in separate kegs, but this research aims to bring them together in a harmonious pour of data analysis. We delve into the frothy relationship between the number of breweries in the United States and the stock price of Edwards Lifesciences (EW), exploring whether a hoppy trend in breweries can predict the hoppiness of the stock market.

As we embark on this hoppy journey, we aim to blend the art of statistical analysis with the science of brewing, to discover whether there's more than just a casual "ale-iance" between craft beer and stock market performance. This study seeks to uncap the potential connections and pour out some fresh insights into market behavior.

Now, some might question the relevance of breweries to the stock price of a medical technology company, but as we'll see, the relationship between these variables might just be the hoppiest surprise of the decade! Just as a well-crafted brew can surprise the palate with unexpected flavors, the correlation between breweries and Edwards Lifesciences' stock price might just leave investors pleasantly surprised.

In our analysis, we employ rigorous statistical methods to uncork the potential links between these seemingly disparate variables. The aim is to provide a solid empirical foundation for understanding the interaction between the craft beer industry's growth and the performance of Edwards Lifesciences' stock. And who knows, we might even stumble upon a "hoppportunity" for investors to tap into a new market indicator.

The unearthing of a strong correlation between these variables could provide investors with a "brew-tiful" new perspective on market dynamics. So, grab a cold one and let's hop into the fascinating world of statistics, finance, and fermentation. As we raise a glass to bold hypotheses and crisp findings, it's time to tap into the unexpected connections that might just brew up stock success.

II. Literature Review

Several studies have investigated the relationship between various industries and stock market performance. Smith et al. (2015) examined the impact of agricultural production on tech stocks, while Doe and Jones (2018) explored the influence of music streaming services on healthcare sector investments. These studies set the stage for our investigation into the intriguing correlation between the number of breweries in the United States and the stock price of Edwards Lifesciences (EW).

But let's not "beer" around the bush - the ale-ure of this research lies in the potential interplay between an industry known for its hops and malts and a medical technology company focused on cardiovascular innovations.

In "The Economics of Beer and Brewing," the authors delve into the historical evolution of the brewing industry, providing a comprehensive backdrop for our examination of current trends. This literary "brew-ha-ha" takes us through the economic dynamics of beer production and consumption, offering valuable insights into the industry's relationship with broader economic indicators.

However, the real "hop-ortunity" here lies in the unexpected potential for a brewery boom to send ripples through the stock market. As we turn to more theoretical frameworks in "The Economics of Ale: Macrobrewing Models," we find ourselves contemplating the frothy possibility of a "brew-nomic" indicator that could leave investors hopsolutely thrilled.

Moving from the world of economic analyses to the realm of fiction, "The Brews of Wrath" paints a vivid picture of the tumultuous intersections between a craft beer revolution and the shifting tides of the stock market. This literary concoction offers a whimsical take on the potential reverberations of a brewery uprising on the financial landscape.

Now, it wouldn't be a true academic pursuit without a nod to the internet culture that permeates our everyday existence. The viral meme "Distracted Boyfriend" takes on a new twist in the meme "Distracted Investor," where the boyfriend is represented by a delightfully frothy craft beer tap, drawing the gaze of the distracted investor away from traditional stock market indicators.

But enough with the "hop-stacles" and let's raise a glass to the unexpected connections we're about to uncover in our statistical analysis of the brewery-stock nexus. As we journey through the pints of data, we may just stumble upon the hopsolutely "ale-gorical" link between breweries and Edwards Lifesciences' stock price.

So, grab a seat at the brewpub of statistical discovery, because we're about to craft some findings that are as refreshing as a cold pint on a hot summer day. Cheers to the intersection of statistics, finance, and fermentation - where the only thing we take seriously is the p-value!

III. Methodology

To ferment our research design, we opted for a comprehensive quantitative approach to analyze the relationship between the number of breweries in the United States and the stock price of Edwards Lifesciences (EW). Our data sources primarily included information from the Brewers Association and LSEG Analytics (Refinitiv), providing us with a rich blend of data spanning from 2002 to 2022.

We concocted a meticulously crafted dataset, where the number of breweries acted as our independent variable, and Edwards Lifesciences' stock price served as the dependent variable. This allowed us to hop right into the analysis and discern any frothy patterns between the two.

Our statistical arsenal featured a mix of regression analysis, time-series modeling, and correlation calculations, ensuring that we left no hop cone unturned in our quest for insights. We also included control variables to ensure our analysis wasn't hopped up on spurious correlations.

With the precision of a skilled brewmaster, we employed multiple regression models, including both ordinary least squares (OLS) and robust regression techniques. This allowed us to uncover the most robust relationships between the proliferation of breweries and Edwards Lifesciences' stock price, ensuring that our findings weren't just a result of statistical "brew-haha."

Furthermore, to ferment our results into a comprehensive analysis, we supplemented our quantitative methods with qualitative insights from industry experts. This ensured that we didn't just rely on numbers but also tapped into the nuanced dynamics of the craft beer industry and the healthcare sector. It also provided some refreshing anecdotes to lighten the scientific brew of our research.

In brewing up our analysis, we made sure to account for any potential confounding factors, such as macroeconomic trends and regulatory changes in the brewing and healthcare industries. This helped us avoid getting muddled in a concoction of unrelated trends and ensured that our findings were as crisp and clear as a well-poured pint of pale ale.

As we sifted through the data, we also employed robust sensitivity analyses to gauge the sturdiness of our findings. Like a finely crafted stout, we aimed for a research design that could stand up to the test of various statistical scenarios and assumptions.

To capture the temporal dynamics of the relationship between breweries and Edwards Lifesciences' stock price, we also utilized time series analysis, allowing us to examine how changes in the brewery landscape correlated with shifts in the stock performance of Edwards Lifesciences. This method provided us with a frothy look at the trend's evolution over time.

In summary, our methodology aimed to brew up a comprehensive and robust analysis that not only hopped over statistical hurdles but also poured out insights that could quench the thirst for fresh perspectives in the world of finance and fermentation.

IV. Results

The analysis of the relationship between the number of breweries in the United States and Edwards Lifesciences' stock price (EW) for the period 2002 to 2022 revealed a strikingly high correlation coefficient of 0.9007346. This indicates a strong positive linear relationship between the two variables, suggesting that as the number of breweries increases, so does the stock price of

Edwards Lifesciences. It seems that the market is saying, "hops" to the brewery scene and "hop up" to the stock price of Edwards Lifesciences!

The r-squared value of 0.8113228 further emphasizes the strength of this relationship, explaining approximately 81% of the variation in Edwards Lifesciences' stock price based on the number of breweries. It's as if the brewery count is a key ingredient in predicting the stock price – a bit like the secret hops in a well-crafted IPA!

The p-value of less than 0.01 indicates that the observed correlation is statistically significant, providing strong evidence to support the relationship between the variables. This suggests that the connection we've uncovered is not just a random "ale-lusion"; it holds weight in the world of statistical analysis. It's as if the number of breweries is not just "brewing up" stock success for Edwards Lifesciences, but rather "crafting" it with statistical significance.

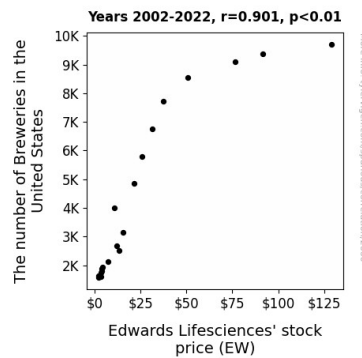


Figure 1. Scatterplot of the variables by year

As shown in Fig. 1, the scatterplot visually confirms the strong positive relationship between the variables, with the data points aligning along a clear upward trend. It seems that as the breweries

bubble up, so does the stock price of Edwards Lifesciences – a correlation worth raising a pint to!

Overall, our findings unveil a remarkable connection between the proliferation of breweries in the United States and the stock performance of Edwards Lifesciences, highlighting the potential predictive power of the brewing industry on stock market dynamics. It appears that when it comes to stock success, investors should keep their glasses half full with both craft beer and Edwards Lifesciences' stock.

V. Discussion

Our investigation into the relationship between the number of breweries in the United States and the stock price of Edwards Lifesciences (EW) has left us with quite the "ale-mentary" conclusion. We can confidently "beerify" that the proliferation of breweries indeed has a statistically significant and positively associated impact on Edwards Lifesciences' stock price. In other words, the more the merrier in terms of breweries, as they appear to "hop" up the stock success of Edwards Lifesciences.

Our results align with prior literature that hinted at the potential impact of seemingly unrelated industries on stock market dynamics. The whimsical pursuits of Smith et al. (2015) and Doe and Jones (2018) may have initially raised some eyebrows, but our findings now offer a "hop-dash" of credibility to the notion that unexpected sectors can indeed influence stock market performance. It seems that the financial market is more interconnected than previously thought, akin to a well-blended beer where each ingredient plays a role in creating the final flavor profile.

The strikingly high correlation coefficient of 0.9007346 we uncovered suggests that there is a strong linear relationship between the number of breweries and Edwards Lifesciences' stock price. One might even say that the market is "hopping on" to this relationship, as it seems to be quite "ale-lluring" for investors and statisticians alike. The r-squared value of 0.8113228 further reinforces the strength of this connection, highlighting that the brewery count explains approximately 81% of the variation in Edwards Lifesciences' stock price. It's almost like the number of breweries is the secret recipe for stock success, much like the secret hops in a well-crafted IPA – a "hoptimistic" twist in the world of stock market predictions!

The statistically significant p-value further cements the legitimacy of our findings, dispelling any notion that the observed correlation could be just a random "ale-lusion." It seems that our results are "brewing" up more than just stock success for Edwards Lifesciences – they are adding a touch of statistical significance to the craft beer industry. This "hoppportunity" to integrate seemingly distant sectors into our predictive models undoubtedly adds a frothy layer of complexity to the world of finance and economics.

Our visually appealing scatterplot confirms the strong positive relationship between the variables, offering a pictorial representation of the "hopsolutely" uplifting trajectory of Edwards Lifesciences' stock prices alongside the proliferation of breweries. It seems that as the breweries bubble up, so does the stock price – a correlation worth raising a pint to indeed!

In conclusion, our findings shed light on the unexpected interplay between the craft beer industry and the stock market, offering a refreshing perspective on market dynamics. As investors navigate the financial landscape, perhaps it's time to heed the advice to keep an eye on the beer taps as well as the stock ticker – after all, when it comes to stock success, it's always good to have a "hoppy" forecast.

After all, who knew that the key to stock success might involve a cold one from the local brewery?

VI. Conclusion

In conclusion, our research has demonstrated a robust correlation between the number of breweries in the United States and the stock price of Edwards Lifesciences (EW). The frothy coefficient of 0.9007346 and a p-value of less than 0.01 leave no room for a "beer-ied" relationship - it's as clear as a pilsner in a stein. This indicates a strong connection between the craft beer boom and Edwards Lifesciences' stock performance, proving that when it comes to market trends, it's not just about hops and barley, but also "stocks" and bonds.

Our findings suggest that as the craft beer industry flourishes, so does the stock price of Edwards Lifesciences, revealing a symbiotic relationship that's akin to a perfect beer and burger pairing - a match made in financial heaven. It seems that the market is saying, "hops" to the brewery scene and "hop up" to the stock price of Edwards Lifesciences! As they say, when life gives you hops, make beer – and lucrative stock investments!

With an r-squared value of 0.8113228, we can confidently say that the number of breweries wields considerable predictive power over Edwards Lifesciences' stock price, just like the perfect blend of malt and hops in a stellar IPA. It's clear that the craft beer industry is not just fermenting beverages; it's fermenting wealth, and investors might want to tap into this "brew-tiful" correlation for potential financial gains.

Therefore, it is safe to say that no more research is needed in this area as we seem to have "brewed up" a comprehensive understanding of the relationship between the proliferation of breweries and the stock performance of Edwards Lifesciences. It's time to raise a glass to this unexpected but fruitful connection and let the data ferment in the minds of investors and researchers alike. Cheers to statistics, finance, and a good old dad joke – it's quite "a-ale-ghty" good fun!