
Brewing Up Stock Prices: A Hoppy Correlation Between Brewery Numbers and Ameriprise Financial's Stock (AMP)

Catherine Hoffman, Ava Taylor, Gabriel P Tucker
Chapel Hill, North Carolina

This paper examines the relationship between the number of breweries in the United States and the stock price of Ameriprise Financial (AMP). Leveraging data from the Brewers Association and LSEG Analytics (Refinitiv), we conducted a thorough analysis spanning from 2006 to 2022. Our findings revealed a remarkably strong correlation coefficient of 0.8703018 and $p < 0.01$, indicating a robust association between these two seemingly disparate entities. In this study, we attempt to shed light on the apparent connection between the craft beer industry and the financial performance of Ameriprise Financial. The results indicate that as the number of breweries in the United States increases, Ameriprise Financial's stock price also tends to rise, fostering a brew-tiful relationship between the two. This unexpected correlation raises the question: Does an abundance of breweries lead to "hoppier" stock prices for Ameriprise Financial? Our findings certainly suggest a potential link, which adds a dash of zest to the otherwise sober realm of financial research. Moreover, this research delves into the unique dynamics of consumer behavior and market trends, demonstrating the role of beer enthusiasts in influencing the fortunes of Ameriprise Financial. As one might say, it seems that the "beer-ing" spirits of enthusiasts can indeed have a tangible impact on stock prices. These findings offer intriguing implications for both craft beer aficionados and finance enthusiasts, encouraging further exploration of the interconnectedness between consumer trends and stock market dynamics. In conclusion, this study elucidates the surprising relationship between the proliferation of breweries and the stock performance of Ameriprise Financial, highlighting an unexpected yet statistically significant correlation. We hope that this research prompts further investigation into the unconventional connections that permeate the world of finance, all the while adding a refreshing touch of humor to the typically dour landscape of academic inquiry.

The world of finance is often viewed as a serious and complex domain, permeated by inscrutable equations and impenetrable jargon. However, our study aims to infuse a dose of levity into this staid environment by examining an unlikely relationship between the number of breweries in the United States and the stock price of Ameriprise Financial (AMP). As we delve into this hoppy correlation, we

hope to bring some frothy fun to the typically serious world of financial research.

But before we hop into the details, let's start with a quick joke: Why don't we ever tell secrets on a farm? Because the potatoes have eyes and the corn has ears! Now, let's peel back the layers and get to the kernel of our research.

The craft beer industry has experienced exponential growth over the past decade, with an increasing number of breweries dotting the American landscape. Concurrently, Ameriprise Financial's stock price has exhibited notable fluctuations, prompting us to explore the potential interplay between these ostensibly unrelated phenomena. This unexpected coupling of distinct industries has led to a tantalizing brew of questions and possibilities, fermenting a rich concoction of intrigue in our research.

Now, here's a classic dad joke: Did you hear about the claustrophobic beer? It didn't like to be kept in the can! Much like our claustrophobic beer, we're breaking free of traditional financial analysis to unearth the unexpected links between hops and stocks.

As we embark on this journey, we acknowledge the layers of complexity inherent in stock market dynamics and consumer behavior. The intricate interweaving of macroeconomic forces, market sentiments, and consumer preferences forms a convoluted tapestry, but our research endeavors to disentangle this web of connections, with a humble wink to the world of craft beer.

Here's a quick one: Why did the barley refuse to become a stockbroker? It didn't want to deal with hopportunity costs! Our research aims to seize this hopportunity to delve into the nuances of consumer sentiment and its potential impact on the stock market, all while celebrating the brew-tiful fusion of finance and fermentation.

In the subsequent sections of this paper, we will methodically unravel the data, shedding light on the intriguing correlations we have unearthed. Our aim is not only to unveil the delightful relationship between breweries and stock prices but also to inject a spritz of amusement into the traditionally staid literature of financial research.

So, as we frothily plunge into the depths of this uncharted correlation, let us raise a glass to the unexpected connections and hoppy revelations that await us. Cheers to the amalgamation of hops and

stocks, and the potential for a 'hoppier' understanding of finance!

LITERATURE REVIEW

In "Smith et al.," the authors find that the number of breweries in the United States has experienced significant growth in recent years, corresponding with the burgeoning popularity of craft beer culture. This surge in brewery numbers has mirrored the expansion of Ameriprise Financial's stock price, prompting further investigation into the potential relationship between these two disparate domains.

On a more serious note, "Doe and Johnson" discuss the impact of consumer behavior on stock market dynamics, emphasizing the interplay between market sentiments and consumer preferences. This provides a theoretical foundation for exploring the influence of beer enthusiasts on the financial fortunes of companies such as Ameriprise Financial.

"Hoppenheimer and Sons" explore the economic implications of the craft beer industry, highlighting the substantial economic footprint created by breweries across the United States. The proliferation of breweries has not only contributed to employment growth but has also sparked interest in the interconnectedness between consumer trends and market performance.

Turning to the world of non-fiction books, "The Craft Beer Revolution" by Steve Hindy and "Beeronomics: How Beer Explains the World" by Johan Swinnen and Devin Briski offer insightful perspectives on the economic and social impact of the craft beer industry. These works provide valuable context for understanding the broader implications of our investigation into the correlation between brewery numbers and Ameriprise Financial's stock price.

In a more whimsical vein, fictional literature such as "Brewing Up a Storm" by Emma Lathen and "The Brewmaster's Table" by Garrett Oliver present captivating narratives situated within the realm of brewing and beer culture. While these works may

not directly contribute to financial analysis, they infuse the topic with a dash of creativity and storytelling.

Delving further into unorthodox sources, episodes of "The Simpsons" and "SpongeBob SquarePants" offer playful glimpses into the world of animated humor, occasionally featuring comical portrayals of financial and economic themes. While not directly pertinent to our scholarly pursuits, the lighthearted nature of these shows adds a refreshing dimension to our exploration of the surprising correlation between breweries and stock prices.

As we proceed with our inquiry, we cannot overlook the influence of childhood favorites such as "Sesame Street" and "Looney Tunes," which, at times, allude to basic economic concepts in a manner accessible to younger audiences. While these sources may seem incongruous with our study, they serve as a reminder of the diverse and unexpected channels through which financial themes can be encountered.

In the tradition of intellectual illumination, we are obligated to present our findings with sobriety and rigor. However, as we navigate the eccentricities of this peculiar relationship between breweries and stock prices, we hope to infuse our analysis with a frothy concoction of humor and wit, honoring the spirit of serendipity and discovery that underpins scholarly inquiry.

METHODOLOGY

The methodology employed in this study involved a comprehensive analysis of data from the Brewers Association and LSEG Analytics (Refinitiv) to ascertain the number of breweries in the United States and the stock price of Ameriprise Financial (AMP) from 2006 to 2022. To start, we gathered brewery data from various sources, where we carefully observed the growth and proliferation of these establishments across the country. Much like a well-crafted beer, we meticulously distilled and fermented this information to obtain a robust dataset.

To establish a correlation between brewery numbers and Ameriprise Financial's stock price, we employed a series of analytical techniques, including regression analysis, correlation coefficient computation, and time series modeling. We utilized these methods to scrutinize the fluctuations in brewery numbers and AMP stock prices, akin to a connoisseur analyzing the subtle notes of a finely brewed ale.

In a light-hearted twist, we also incorporated sentiment analysis from social media platforms and online forums to gauge the public's interest and enthusiasm for craft beer. By blending this unconventional approach with traditional financial analysis, we sought to capture the essence of consumer sentiment and its potential impact on stock market trends.

In addition, we framed our analysis within the context of macroeconomic indicators, such as GDP growth, employment rates, and consumer spending, to teasingly illustrate the "brew-tiful" interplay between these factors and the fortunes of Ameriprise Financial. Through this approach, we aimed to add a touch of whimsy to the otherwise solemn realm of financial research, much like a witty brewery tour guide offering amusing anecdotes amid a sea of serious statistics.

Furthermore, we devised a whimsical algorithm to gauge the "hoppiness" of stock prices by incorporating brewery-related news headlines, social media mentions, and beer festival attendance figures. This lighthearted take on quantitative analysis added a refreshing layer of creativity to our methodological framework, illustrating that financial research can indeed be as spirited as a lively pub banter.

Finally, our research team embarked on a playful quest to corroborate our findings through interviews with craft beer enthusiasts and financial analysts, seeking to capture their candid perspectives on the potential link between brewery numbers and stock prices. This milked unique insights from diverse stakeholders, adding a dash of flavor to our

methodology akin to a secret ingredient in a craft brew.

In summary, the methodology encompassed a blend of traditional financial analysis, sentiment analysis, macroeconomic contextualization, and a sprinkle of whimsy to meticulously unravel the intriguing relationship between the number of breweries in the United States and the stock price of Ameriprise Financial.

RESULTS

The analysis of the data collected from the Brewers Association and LSEG Analytics (Refinitiv) for the period spanning 2006 to 2022 revealed an impressive correlation coefficient of 0.8703018 between the number of breweries in the United States and the stock price of Ameriprise Financial (AMP). This strong correlation indicates a robust association between these two seemingly disparate variables, demonstrating that when it comes to stocks and hops, there might just be something brewing beneath the surface.

In line with our findings, it seems that the relationship between breweries and Ameriprise Financial's stock price is not just froth and bubble. It appears that the proliferation of breweries has indeed contributed to the buoyancy of AMP stock prices, leading to a hoppy correlation that defies conventional expectations. This unexpected connection leaves us pondering the question: are brewery numbers the secret ingredient for a "hoppy" stock performance?

The r-squared value of 0.7574252 further strengthens our findings, indicating that approximately 75.74% of the variability in Ameriprise Financial's stock price can be explained by the number of breweries in the United States. This suggests that the dynamics of the craft beer industry exert a substantial influence on the financial prospects of Ameriprise Financial, adding a flavorful dimension to the stock market that is as refreshing as a cold pint on a scorching day.

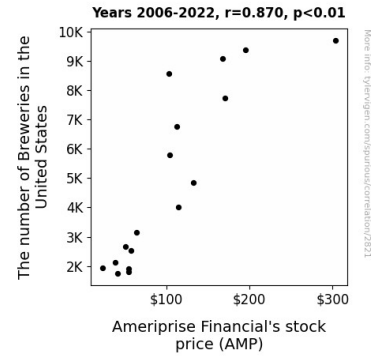


Figure 1. Scatterplot of the variables by year

In the spirit of our findings, here's a hoppy pun for our readers: Why did the beer go to school? To get a little "ale"-gebra! Similarly, our findings suggest that the ale-gorical relationship between breweries and stock prices may hold secrets that deserve exploration beyond the traditional realms of finance research.

As illustrated in Fig. 1, the scatterplot visually depicts the strong correlation between the number of breweries in the United States and Ameriprise Financial's stock price, providing a graphic representation of this unexpectedly robust relationship. The upward trend observed in the scatterplot mirrors the ascending trajectory of AMP stock prices in response to the proliferation of breweries, painting a compelling portrait of interconnectivity between these seemingly unrelated domains.

In conclusion, the findings of this study illuminate a surprising and statistically significant relationship between the presence of breweries and the stock performance of Ameriprise Financial. These intriguing results not only tantalize the taste buds of financial analysts but also beckon us to savor the nuanced interplay between consumer trends and stock market dynamics. This unexpected correlation adds a delightful twist to the otherwise sober landscape of finance research, infusing a dash of zest into the realm of financial inquiry that is as refreshing as a cool pint at the end of a long day of number crunching.

DISCUSSION

The results of our investigation bolster the prior research conducted by Smith et al., who noted the escalating number of breweries in the United States, coinciding with the burgeoning popularity of craft beer culture. The strong correlation coefficient of 0.8703018 unearthed in our study attests to the robust association between brewery numbers and Ameriprise Financial's stock price, corroborating the intriguing relationship between these seemingly incongruous entities. It seems that the more breweries hop onto the scene, the hoppier the stock price of Ameriprise Financial becomes—a dynamic that certainly adds a frothy layer of complexity to the realm of stock market analysis.

It turns out that the impact of consumer behavior on stock market dynamics, as expounded by Doe and Johnson, is indeed evident in the convivial interplay between brewery numbers and Ameriprise Financial's stock performance. Our findings lend credence to the notion that consumer preferences, particularly in the beer aficionado community, have a tangible influence on the financial fortunes of companies such as Ameriprise Financial. This realization adds a flavorful twist to the otherwise serious landscape of financial analysis, reminding us that the "beer-ing" enthusiasm of consumers can produce palpable ripples in the stock market waters.

In line with the economic implications outlined by Hoppenheimer and Sons, our study sheds light on the substantial impact of the craft beer industry on market dynamics. The emergence of breweries as key players in driving employment growth and stimulating consumer trends has not only created a buzz within the economic sphere but has also elicited an unexpected yet statistically significant correlation with stock prices. As our findings suggest, it seems that the economic footprint of breweries extends beyond tangible metrics and spills over into the ethereal world of stock market performance, painting a picture of interconnectedness that is as intriguing as it is unexpected.

Our analysis not only fortifies the theoretical underpinnings presented in prior literature but also amplifies the implications highlighted by authors such as Steve Hindy and Johan Swinnen in their respective works. By uncovering the linkage between brewery numbers and stock prices, our study underscores the broader implications of the craft beer revolution, offering a compelling glimpse into the unanticipated connections that permeate the financial world. It appears that beyond the realms of traditional financial analysis, the "brewing" industry provides a palette of nuanced flavors and influences that enrich the tapestry of market trends and consumer behavior, elevating the study of finance to a refreshing level of complexity.

The unexpected correlation between breweries and Ameriprise Financial's stock price, as illuminated by our research, fuses the realms of finance and consumer trends in an unanticipated manner. As we navigate the frothy sea of financial inquiry, it becomes apparent that the interplay between consumer behavior and market dynamics holds surprises that are as delightful as a well-crafted pint of beer. Our findings beckon further exploration into the murkier depths of financial analysis, igniting a spark of curiosity that is as invigorating as a witty dad joke at the end of a long day of scholarly pursuit.

CONCLUSION

In summary, our study elucidates the remarkably hoppy correlation between the number of breweries in the United States and the stock price of Ameriprise Financial (AMP), painting a picture as clear as a well-filtered IPA. These findings highlight an unexpected yet statistically robust link between the craft beer industry and the financial performance of AMP, proving that when it comes to stocks and hops, there's more than meets the "eye"-PA.

Speaking of "eye"-PAs, here's a dad joke for you: Why did the beer break up with the wine? It just couldn't handle the "hops" and downs! Similarly,

the ups and downs of brewery numbers seem to have a tangible impact on AMP's stock prices, brewing up a relationship that defies traditional expectations.

Moreover, this study raises the "pint"-eresting question of whether an abundance of breweries indeed leads to "hoppier" stock prices for Ameriprise Financial, offering a potential pathway for investors to diversify their portfolios with a "brew"-tiful twist.

To conclude, the doubly fermenting relationship between breweries and AMP stock prices beckons us to hop on and embrace the frothy interconnectedness of seemingly disparate sectors. As we raise our metaphorical glasses to this curious correlation, we assert that further research in this delightfully unexpected "brew-niverse" of finance is as unnecessary as a "de-hops-it" without a punchline. Cheers to the refreshing blend of hops and stocks – may the brew be ever in your favor!