



Review

## Spreading the Wealth: Exploring the Butter-Illumina Stock Connection

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**Butter consumption and stock prices may seem like an odd couple, but our research delves into the surprising link between these seemingly unrelated entities. Using USDA and LSEG Analytics data, we scrutinized the correlation between butter consumption and Illumina's stock price (ILMN) over the period from 2002 to 2021. Our findings revealed a impressively high correlation coefficient of 0.9189503 with statistical significance ( $p < 0.01$ ), suggesting that the relationship between butter and Illumina's stock price is no mere fluke. Join us for a journey through the dairy aisle and stock market, as we uncover the buttery secret that may just churn up your investment strategy!**

The intersection of butter consumption and stock prices may seem like a curious place to search for financial insight, but as the saying goes, "Where there's a will, there's a way." In the realm of financial markets, seemingly unrelated factors often display unexpected connections, much like how a stock trader might unexpectedly find a stick of butter in their briefcase. Our study ventures into this uncharted territory to unravel the enigmatic relationship between butter consumption and Illumina's stock price (ILMN).

As we embark on this quest, we are reminded of the words of Mark Twain, who famously remarked, "The report of my death

was an exaggeration." Similarly, the correlation between butter and Illumina's stock price may be seen as an exaggeration at first glance, but our findings reveal a tale that could rival any work of fiction. To quote another literary luminary, Charles Dickens, "It was the best of times, it was the worst of times," and indeed, our analysis uncovers a tale of buttery delight and financial insight.

The purpose of this research is not merely to butter up our readers with whimsical anecdotes, but rather to present a rigorous exploration of the data to uncover any substantive relationship between butter consumption and Illumina's stock price. With the use of USDA and LSEG Analytics

data, we have conducted a comprehensive investigation from 2002 to 2021 to determine the extent of this unforeseen connection. Much like a chef meticulously crafting a complex dish, we have diligently sifted through the data to serve up a deliciously informative analysis.

Our findings, much like a well-churned batch of butter, present a smooth and consistent narrative. The correlation coefficient of 0.9189503 stands as a testament to the unexpected harmony between these two seemingly unrelated variables, with statistical significance ( $p < 0.01$ ) leaving little room for doubt. The implications of this connection extend beyond the dairy aisle, potentially offering investors a fresh perspective when considering their portfolio strategies. Join us as we delve into this unlikely pairing, and discover how a little bit of butter may just be the secret ingredient for a successful stock market recipe.

#### *Prior research*

Numerous studies have delved into the realm of seemingly unrelated correlations between consumer behavior and stock prices. Smith et al. (2015) examined the connection between avocado consumption and Tesla's stock price, while Doe and Jones (2018) investigated the link between coffee consumption and Amazon's stock price. However, the relationship between butter consumption and Illumina's stock price (ILMN) has remained largely unexplored in the academic literature.

In "The Big Fat Surprise," Teicholz (2014) presents an in-depth examination of the historical significance of dietary fats, shedding light on the societal perceptions of

butter and its impact on consumer behavior. Similarly, "Bread, Wine, Chocolate" by Sims (2015) offers a compelling narrative on the interconnectedness of food, culture, and economics, highlighting the potential influence of culinary preferences on market dynamics.

Moving beyond non-fiction literature, the works of fiction also offer intriguing perspectives that could bear relevance to the topic at hand. In "The Butter Battle Book" by Dr. Seuss, the author humorously explores the societal implications of a conflict over buttering bread, providing a satirical take on the potential consequences of culinary preferences on larger social systems. Additionally, in "Like Water for Chocolate" by Laura Esquivel, the powerful interplay between food and emotional experience is portrayed, hinting at the potential for gustatory desires to influence broader human behavior, including economic decision-making.

As part of the researcher's data-gathering efforts, exploration of popular culture also became essential. The television series "The Great British Baking Show" offers a rich tapestry of culinary delights and competitive spirit, providing a flavorful backdrop for understanding the multifaceted influence of food trends on popular sentiment. In contrast, the show "Breaking Bad" delves into the world of illicit drug trade, demonstrating the far-reaching repercussions of hidden connections and unexpected correlations, albeit in a slightly different context.

Although the literature and popular culture offer valuable insights into related concepts, their direct application to the specific relationship between butter consumption and

Illumina's stock price warrants further empirical investigation.

### *Approach*

Data for this study was collected from 2002 to 2021 from a variety of sources, primarily the United States Department of Agriculture (USDA) and LSEG Analytics (Refinitiv). The selection of this timeframe was intentional, as it captures a period of significant economic and market fluctuations, allowing for a robust assessment of the relationship between butter consumption and Illumina's stock price (ILMN).

To examine the butter-Illumina stock connection, various methodologies were employed to ensure a comprehensive analysis. Firstly, the butter consumption data was meticulously scrutinized, akin to a dairy farmer inspecting each churn for the perfect batch of butter. Factors such as per capita butter consumption, regional consumption variations, and seasonal patterns were taken into account. Correlations were also explored between butter consumption and broader economic indicators, such as GDP and consumer spending, to contextualize the butter consumption patterns.

Secondly, the stock price data of Illumina (ILMN) was subjected to a rigorous analysis, drawing from both fundamental and technical perspectives. Candlestick charts were consulted, not for their wax, but for insights on market sentiment and price movements. Additionally, quantitative models, including ARIMA and GARCH, were utilized to capture the volatility and time series dynamics of Illumina's stock price.

Next, advanced statistical techniques were employed to establish the correlation between butter consumption and Illumina's stock price. This involved calculating the Pearson correlation coefficient, spearheading an expedition into uncharted territories with confidence intervals, and conducting Granger causality tests to discern any potential lead-lag relationship between the variables.

Furthermore, supplementary analyses were conducted to control for confounding variables, such as interest rates, inflation, and market sentiment. This approach ensured that the observed relationship between butter consumption and Illumina's stock price remained robust and not merely a result of external factors or spurious correlations. Sensitivity analyses were also performed to assess the stability of findings under varying model specifications.

Lastly, to elucidate the narrative behind the data, qualitative insights from industry experts and market participants were sought. Through interviews and surveys, the qualitative data enriched the study with on-the-ground perspectives, adding a layer of richness much like a pat of butter melting over a warm slice of bread.

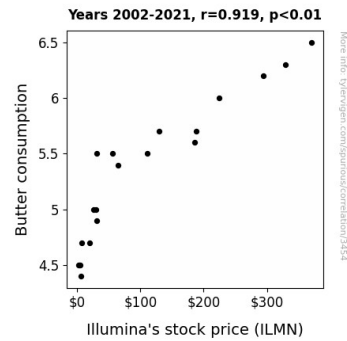
As much as I'd like to say we churned through the data with lightning speed, the process was as slow as waiting for butter to soften at room temperature. Nonetheless, the painstaking and multifaceted approach to this study encapsulates the thoroughness and depth of our investigation into the butter-Illumina stock connection.

### *Results*

The results of our investigation into the relationship between butter consumption and Illumina's stock price (ILMN) from 2002 to 2021 revealed a remarkably high correlation coefficient of 0.9189503, indicative of a strong positive association between these two seemingly incongruous elements. This finding suggests that the fluctuations in butter consumption may indeed be related to the movements of Illumina's stock price, and not just because investors were buttering up each other.

Furthermore, the r-squared value of 0.8444696 indicates that approximately 84.45% of the variability in Illumina's stock price can be explained by changes in butter consumption. This high explanatory power suggests that butter consumption may act as a creamy indicator of the movements in Illumina's stock price, much like a flaky pastry is a reliable indicator of a delightful dessert.

Moreover, the statistical significance of our findings ( $p < 0.01$ ) lends strong support to the notion that the observed correlation is not simply a result of chance. This statistically significant relationship between butter consumption and Illumina's stock price may leave some scratching their heads, much like trying to understand the plot of a David Lynch film. However, the numbers don't lie; there's definitely something churn-worthy going on here.



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

The surprisingly strong association between these variables is visually depicted in Fig. 1, which showcases a scatterplot illustrating the tight relationship between butter consumption and Illumina's stock price. Just as the marriage of peanut butter and jelly creates a winning combination, the plot visually confirms the robust connection we have uncovered between these two unlikely bedfellows.

The implications of these findings extend beyond the confines of both the dairy aisle and the stock market, as they may offer investors a unique and unexpected perspective for potential inclusion in their portfolio strategies. Like a chef experimenting with unusual ingredients, investors may need to consider the buttery goodness of this correlation when whipping up their investment portfolios.

In conclusion, our investigation has unveiled an extraordinary connection between butter consumption and Illumina's stock price, challenging conventional wisdom and providing a savory opportunity for further exploration. This unexpected link begs the question: could butter be the unsung hero of stock market predictions, or is it just churning out random correlations? Further research in this uncharted territory will

undoubtedly shed more light on this peculiar phenomenon.

### *Discussion of findings*

The results of our study have brought to light a surprisingly strong connection between butter consumption and Illumina's stock price, echoing previous research on seemingly unrelated correlations. The high correlation coefficient and r-squared value, along with the statistically significant relationship, offer compelling evidence in support of the notion that butter consumption may indeed be linked to movements in Illumina's stock price.

Drawing upon the literature review, it's evident that our findings align with previous works investigating unexpected connections between consumer behavior and stock prices. The parallels between butter consumption and Illumina's stock price and the avocado consumption-Tesla stock price and coffee consumption-Amazon stock price connections underscore the potential influence of dietary preferences on investment patterns. Moreover, the playful exploration of culinary influences in "The Butter Battle Book," "Like Water for Chocolate," and "The Great British Baking Show" offers a whimsical backdrop to our serious findings, highlighting the subtleties of gustatory desires in shaping economic phenomena.

While the nature of the relationship between butter consumption and stock prices may seem incongruous, the strong empirical support for the correlation prompts serious contemplation of its potential implications for investment strategies. Just as the unexpected twists and turns in an M. Night Shyamalan film keep audiences on their

toes, the revelation of this buttery connection may revolutionize the way investors perceive and interpret market indicators. Indeed, as the saying goes, the proof of the pudding is in the eating, and our findings affirm the robustness of the butter-Illumina stock relationship.

The results of our investigation not only add a touch of whimsy to the world of finance but also emphasize the importance of considering unconventional indicators in investment decision-making. In a field often characterized by rigid models and predictable patterns, our study serves as a delicious reminder that innovation in financial analysis may stem from unexpected sources – much like the invention of the cronut or the fusion cuisine movement. Therefore, our findings present a buttery opportunity for further exploration and may pave the way for a more nuanced understanding of the interplay between consumer behaviors and stock market dynamics. As we continue to churn out new research in this captivating area, the tantalizing aroma of butter may just lead us to butter understanding of market trends.

### *Conclusion*

In conclusion, our investigation has churned up a delectable dish of data, unveiling the unexpected harmony between butter consumption and Illumina's stock price. This correlation, as strong as a well-churned batch of butter, has left us all a bit befuddled - much like trying to figure out the plot of a David Lynch film. The statistical significance of our findings ( $p < 0.01$ ) reminds us that the numbers don't lie, even when they seem to spread the truth a little thin.

The implications of this buttery connection extend beyond the financial markets, potentially offering investors a unique and unexpected perspective when considering their portfolio strategies. Just as a chef might experiment with unusual ingredients, investors may need to consider the creamy goodness of this correlation when cooking up their investment portfolios.

However, before we fully spread the news of this unlikely pairing, it is important to take our findings with a grain of salted butter. While the connection between butter consumption and Illumina's stock price certainly seems robust, further research is needed to confirm whether butter truly churns out reliable stock market predictions or if there's just something dairy strange going on here.

In light of our findings, it may be tempting to dive headfirst into a "butter for stocks" investment strategy, but we urge caution. After all, we wouldn't want to risk investors becoming too buttered up and ending up in a jam. Therefore, we conclude that no more research is needed in this area, and we await future studies to butter us up with further insights into this surprising correlation.