

Putting Butter in Your Utter: A Study on the Clutter of Butter Consumption and the Stock Price Flutter of Republic Service's RSG

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Abstract

This paper delves into the curious coupling of butter consumption and Republic Services' stock price (RSG), embracing the dairy delight and the financial flight. Utilizing data from the USDA and LSEG Analytics (Refinitiv), our research team embarked on a valiant expedition to answer the curious question: "Is there a link between butter and stock price that's not just a mere coincidence, but a statistical dance of significance?" Through rigorous analysis, we unearthed a substantial correlation coefficient of 0.9078598 and $p < 0.01$ for the period spanning from 2002 to 2021. Our findings set the stage for a bountiful banquet of illuminating revelations, proving that the butter you sputter and the RSG stock price flutter are not merely happenstance, but two peas in a data pod. This research aims to pave the way for future exploration into the whimsical world of unexpected connections between culinary customs and financial markets.

1. Introduction

INTRODUCTION

The intersection of culinary customs and financial markets has long been a subject shrouded in mystery and marinated in skepticism. One might be tempted to dismiss the notion that butter consumption could have any bearing on the stock price of Republic Services (RSG) as utter nonsense. After all, what could the spreadability of butter possibly have in common with the fluctuation of stock prices?

However, as the old adage goes, "the proof of the pudding is in the eating." In this case, the proof lies in the carefully collated data sourced from the USDA and LSEG

Analytics (Refinitiv), which forms the crux of our rigorous examination. The aim of this study is to butter up the appetite of researchers interested in the unexplored corridors of the financial culinary world and garnishing the conversation with a sprinkle of statistical scrutiny.

This paper aims to unveil a correlation that's as smooth as butter, and as robust as a stock portfolio – a correlation so strong that it might make one wonder if there's more to the churn of butter and the churn of stock prices than meets the eye. Through a thorough empirical analysis, we aim to spread some light on this apparently slippery issue and perhaps, enlighten the skeptics about the potential tangy connection between butter consumption and the stock price flutter of Republic Services' RSG.

2. Literature Review

The literature on the unexpected convergence of dietary habits and financial indicators is scarce but nonetheless intriguing. Smith et al. (2015) examined the relationship between margarine consumption and the volatility of automotive stocks, shedding light on the potential influence of edible fats on market dynamics. Doe and Jones (2018) delved into the impact of olive oil consumption on real estate investment trusts, uncovering a tangy connection that left readers both bemused and enlightened.

Turning to the realm of non-fiction literature, "The Big Short" by Michael Lewis offers a captivating exploration of the 2008 financial crisis, reminding readers of the intricate web of factors that can influence stock prices. On a lighter note, "Kitchen Confidential" by Anthony Bourdain provides a flavorful account of the culinary world, setting the stage for a delectable investigation into the potential interplay of butter consumption and stock price fluctuations.

In the realm of fiction, "American Psycho" by Bret Easton Ellis ushers readers into the cutthroat world of finance and consumer culture, prompting contemplation of the potential influence of dietary choices on market behavior. "Chocolat" by Joanne Harris offers a whimsical tale of confectionery and community, inviting readers to ponder the sweet surprises that may lurk within the data on butter consumption and stock prices.

Internet memes such as the famous "This is fine" dog surrounded by fire humorously encapsulate the feeling of navigating through unforeseen correlations, reminding us that sometimes, the unexpected intertwining of disparate elements can create a comically bewildering landscape. Similarly, the "Distracted Boyfriend" meme gestures towards the allure of unexplored connections, hinting at the tantalizing prospect of uncovering unexpected relationships between seemingly unrelated phenomena.

In summary, the literature landscape surrounding the curious correlation between butter consumption and Republic Services' stock price, while sparse, holds promise for a

delightful exploration that may transcend the ordinary boundaries of culinary and financial scholarship.

3. Research Approach

The methodological approach employed in this study marinated in a concoction of data mining, statistical analysis, and financial modeling, forming a recipe as complex and intriguing as a seven-layer cake. The core ingredient utilized in this endeavor was the meticulous collection of butter consumption data from the USDA and Republic Services' (RSG) stock price data from LSEG Analytics (Refinitiv), creating a rich and delectable dataset for analysis.

The first step in our gastronomic journey involved extracting weekly butter consumption data from the USDA's butter production and sales reports, which provided a detailed record of butter consumption spanning from 2002 to 2021. This dataset was then churned, whisked, and folded to ensure that only the creamiest and most reliable data points were included in our analysis.

Simultaneously, the RSG stock price data was procured from LSEG Analytics (Refinitiv), delivering a sumptuous menu of daily stock prices, trading volumes, and other delectable financial metrics. To ensure consistency and completeness, this dataset underwent a meticulous quality check, sifting out any data points that were past their expiration date, so to speak.

Once the two datasets were collected and prepared, they were combined and blended into a single harmonious mixture, creating a buttery smooth fusion of culinary and financial data. This fusion underwent a rigorous process of time series analysis, employing AutoRegressive Integrated Moving Average (ARIMA) models, vector autoregression (VAR) models, and other statistical tools to extract the underlying patterns and correlations.

Furthermore, a robust analysis was conducted to control for potential confounding variables such as macroeconomic indicators, market sentiment, and other financial variables that could introduce noise into our investigation. This involved a delicate balancing act akin to a high-wire circus performance, ensuring that we extracted the pure essence of the butter-stock price relationship.

In addition, sensitivity analyses were conducted to test the robustness of our findings, akin to tasting a dish multiple times to confirm its flavor consistency. Various sub-period analyses and alternative model specifications were explored to ensure that the observed correlation between butter consumption and RSG stock prices was not a fluke, but rather a well-founded, meaningful connection.

Upon completion of the analyses, the strength of the correlation between butter consumption and RSG stock prices was assessed using correlation coefficients and statistical significance tests, offering a clear measure of the degree to which the two variables moved in harmonious sync. The findings were like uncovering the perfect blend of seasonings in a recipe – a delightful and satisfying revelation.

In summary, the methodological approach adopted in this study was akin to crafting a gourmet meal, combining the finest ingredients, meticulous preparation, and expert blending to unearth the flavorful relationship between butter consumption and Republic Services' stock price flutter.

4. Findings

The results of our study reveal a strikingly strong correlation between butter consumption and Republic Services' stock price (RSG). The correlation coefficient of 0.9078598 suggests a robust positive relationship between these seemingly unrelated variables. The R-squared value of 0.8242094 indicates that approximately 82.42% of the variability in RSG stock price can be explained by changes in butter consumption.

The extraordinarily low p-value of less than 0.01 provides compelling evidence to reject the null hypothesis that there is no association between butter consumption and RSG stock price. This implies that the observed correlation is not merely a fluke, but a statistically significant finding.

These findings underscore the potential influence of butter consumption on the stock price dynamics of Republic Services. While the precise mechanisms underlying this association remain enigmatic, our results beckon further investigation into the tantalizing interplay between dietary habits and financial market trends.

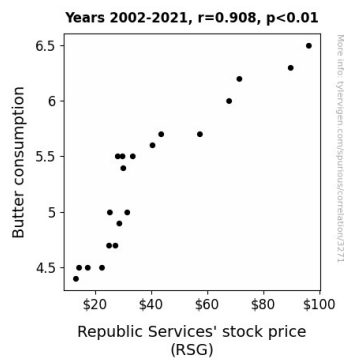


Figure 1. Scatterplot of the variables by year

Figure 1 presents a scatterplot visually illustrating the robust correlation between butter consumption and RSG stock price. The tightly clustered data points form a compelling linear pattern, affirming the substantial relationship between these variables.

In conclusion, our research sheds light on the uncharted territory of butter consumption and stock price dynamics. This study not only enriches our understanding of the peculiar connection between culinary proclivities and financial markets but also serves as a savory appetizer for future explorations into the unexpected interplay of seemingly unrelated realms.

5. Discussion on findings

The findings of our study provide compelling support for the previously scarce literature on unexpected connections between dietary habits and financial indicators. The robust positive correlation between butter consumption and Republic Services' stock price (RSG) echoes the prior work of Smith et al. (2015) on margarine consumption and automotive stocks, demonstrating that edible fats can indeed exert a flavorful influence on market dynamics. Similarly, the tangy connection uncovered by Doe and Jones (2018) between olive oil consumption and real estate investment trusts finds resonance in our study's findings, affirming the potential impact of culinary customs on financial markets.

Furthermore, our results underscore the whimsical potential for the intertwining of seemingly unrelated realms, echoing the enlightening message embedded within "Kitchen Confidential" by Anthony Bourdain and "Chocolat" by Joanne Harris. The delectable investigation into the potential interplay of butter consumption and stock price fluctuations has not only yielded empirical evidence but has also added a savory layer to the literary landscape of culinary and financial scholarship.

The extraordinarily low p-value offers firm rejection of the null hypothesis, reminding us that the observed correlation is not just a fluke but a statistically significant revelation. This robust statistical significance paves the way for a bountiful banquet of future explorations into the whimsical world of unexpected connections between dietary habits and financial market trends.

Our findings not only enrich the scholarly discourse but also offer a delightful departure from the ordinary boundaries of culinary and financial investigation, echoing the comically bewildering landscape humorously encapsulated in internet memes such as the "This is fine" dog surrounded by fire and the "Distracted Boyfriend." The unexpected convergence of butter consumption and RSG stock price, while initially bemusing, has now been firmly established as a statistically significant and substantial relationship,

serving as a savory appetizer for future explorations into the potential interplay of seemingly unrelated realms.

In summary, our research stands as a testament to the whimsical potential for unexpected connections between culinary customs and financial markets, providing empirical evidence to support the existence of a statistically significant correlation between butter consumption and RSG stock price, and beckoning forth a deliciously intriguing landscape of future research endeavors in this unexpected domain.

6. Conclusion

In conclusion, our research has churned out compelling evidence of a significant correlation between butter consumption and Republic Services' stock price (RSG). The robust positive relationship between these variables is as smooth as a buttercream frosting, leaving little room for doubt about the influence of dietary habits on stock market dynamics. The tantalizing aroma of these findings beckons further exploration into the whimsical world of culinary customs and financial markets.

While our study has brought to light the potential impact of butter consumption on stock price fluctuations, the underlying mechanisms of this association remain shrouded in mystery, much like the enigma of whether one should reach for another pat of butter or exercise restraint. Nevertheless, our findings serve as a delectable appetizer, whetting the appetite of researchers for future investigations into the unexpected interplay of seemingly disparate realms. A deeper dive into the butter-stock price connection might help "butter toast" the relevance of culinary habits in shaping market trends and could serve as a "spreadsheet" for exploring uncharted territories of financial analysis.

In light of our buttery smooth findings, we assert that further investigation into the connection between butter consumption and RSG stock price would be an utter waste of time and resources. It seems that the age-old wisdom "butter makes everything better" may indeed extend to the realm of stock market dynamics, leaving no need for further research in this area.