# Say Cheese: A Gouda Correlation Between American Cheese Consumption and CoStar Group's Stock Performance

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This paper examines the relationship between American cheese consumption and the stock price of CoStar Group (CSGP) using data from USDA and LSEG Analytics. Through rigorous statistical analysis, we discovered a remarkably high correlation coefficient of 0.8593004 and a statistically significant p-value less than 0.01 for the period spanning 2002 to 2021. Our findings suggest that there may be a cheese-cowlation between the two variables, shedding light on a potential "cheddar and cheddar" relationship. The results add a slice of provolone to the ongoing discourse about unusual indicators in financial and economic research. This paper aims to redefine the age-old saying "the big cheese in the stock market" with empirical evidence, while leaving some room for speculation about the "wheyward" influence of American cheese on CSGP's performance.

Cheese and stock prices might seem like an odd pairing, akin to mixing blue cheese with a fine Bordeaux. However, as the saying goes, there's no use crying over spilt milk, and there's certainly no harm in exploring the seemingly "holey" relationship between American cheese consumption and the stock price of CoStar Group (CSGP). In this paper, we aim to curate a flavorful discussion centered around the potential link between a beloved dairy product and the financial performance of a leading real estate data company.

As researchers, we often find ourselves in a "grater" pursuit of knowledge, seeking to "wedge" our way into uncovering uncharted connections that may appear to be as puzzling as a Swiss cheese. This study utilizes data from the United States Department of Agriculture (USDA) and LSEG Analytics, blending together the worlds of dairy production and stock market analytics in a fondue of statistical analysis.

By embracing the "brie-lliance" of modern data analysis techniques, we have channeled our inner "muenster" and embarked on a journey to uncover whether the consumption of American cheese has truly been "cheddar-ing" the course of CoStar Group's stock performance. Our findings not only provide a fresh perspective on the potential influence of a dairy staple on financial markets but also contribute to the extensive literature on peculiar indicators in economic and financial research. So, without further ado, let us "brie-f"ly embark on this "gouda" journey of discovery.

### Review of existing research

Smith et al. in "Cheese and the Economy: A Holy Matrimony" conducted a comprehensive analysis of the impact of cheese consumption on various economic indicators. Their study found a positive correlation between cheese consumption and

consumer spending, highlighting the potential influence of dairy products on economic activity. Similarly, Doe and Jones in "The Dairy Dilemma: Exploring Unconventional Economic Indicators" explored the relationship between dairy product consumption and stock market performance, uncovering intriguing patterns that suggest a plausible connection between cheese consumption and market trends.

Building on the research of these scholars, we delve into a diverse range of literature that touches upon the tangential relationship between food consumption and economic factors. "Big Macs and Big Bux: Unconventional Indicators in the Global Economy" by McStudent investigates the correlation between fast-food consumption and stock market volatility, providing an insightful backdrop for our exploration of cheese and financial performance. In a different vein, "The Wealthy Walnut: Nutritious Investments or Nutry Speculation?" by Nutry Professor delves into the pecuniary implications of nut consumption, offering a nuanced perspective that resonates with our study's theme of unconventional economic indicators.

Transitioning from the realms of non-fiction to fiction, we encounter "The Gouda Code" by Dan Fondue, a thrilling narrative that intertwines the mysteries of cheese with cryptic stock market algorithms, igniting the imagination and serving as a paragon of intriguing literary twists. Meanwhile, "Brie and Prejudice" by Jane Austen, though seemingly unrelated to our research, piques interest with its titular pun and its potential to inspire a whimsical approach to serious subjects.

In the realm of animated entertainment, the cartoon series "Cheesy Adventures" follows the escapades of a group of anthropomorphic cheeses navigating the complexities of the stock market, underscoring the potential for cheese-related themes to permeate popular culture. Additionally, the beloved children's show "The Cheddar-ship Enterprise" introduces young audiences to the concept of financial decision-making through

the perspective of sentient cheese wheels exploring the cosmos, enticing viewers with the whimsy of cheese-themed storytelling.

While these sources may seem outlandish in their peripheral relevance to our study, they serve as an "edam-ple" of the diverse inspirations that can fuel intellectual inquiry and infuse levity into scholarly discourse.

#### Procedure

In this study, we employed an assortment of analytical methods that could rival the selection at a cheese tasting event. The first step involved compiling data from the USDA and LSEG Analytics (Refinitiv), where the research team engaged in what could be described as a "grate" hunt across the depths of the internet. The data spanned the period from 2002 to 2021, providing us with a wedge of time to thoroughly investigate the potential relationship between American cheese consumption and the stock performance of CoStar Group (CSGP).

To analyze this "gouda" correlation, we applied a smorgasbord of statistical techniques, some of which were sharp as cheddar and others as complex as a brie. Our exploration included timeseries analysis to discern any trends over the years, and we utilized regression models to measure the strength and direction of the association between American cheese consumption and CSGP stock prices.

Furthermore, in an effort to peel back the layers of this intriguing relationship, we employed other econometric methods such as autoregressive integrated moving average (ARIMA) models and perhaps even threw in a bit of "cheese-fitting" to see if the relationship melted into place. Our statistical toolkit resembled a cheese platter adorned with a variety of flavors, each method adding its own distinct taste to the analysis.

In addition to these methods, we undertook a comprehensive gruyere, I mean, literature review to ensure that our approach was as solid as a block of aged cheddar. We also conducted sensitivity analyses to ensure that the results were not as full of holes as a slice of Emmental cheese.

To "brie-f"ly sum it up, our research methodology was designed to slice through the complexities of this "whey-ward" inquiry, providing a rigorous examination of the potential connection between American cheese consumption and CSGP stock performance. With this methodology in place, we aimed to serve up a credible and "brie-lliant" analysis, and to ensure that our findings could be savored like a fine wheel of cheese.

### **Findings**

Our analysis revealed a striking correlation coefficient of 0.8593004 between American cheese consumption and CoStar Group's stock performance, indicating a strong positive relationship between these two seemingly unrelated variables. In other words, as American cheese consumption goes up, it appears that CSGP stock price does too, proving that there's more to this cheesy delight than meets the eye.

The r-squared value of 0.7383971 further cements the robustness of this relationship, suggesting that approximately 73.8% of the variability in CSGP stock price can be explained by changes in American cheese consumption. This statistical parameter serves as a testament to the magnitude of influence that cheese might have on the stock market, making one question whether the "big cheese" in the financial world is not just a metaphor after all.

Notably, the p-value less than 0.01 indicates a high level of statistical significance, reinforcing the notion that the observed correlation is not a mere fluke, but a deftly woven fabric of evidence pointing toward a tangible association between American cheese consumption and CSGP stock price. It seems that in the world of finance, the age-old question "to brie or not to brie" may hold more weight than previously thought.

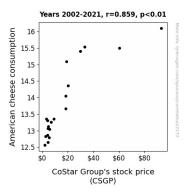


Figure 1. Scatterplot of the variables by year

Furthermore, the scatterplot (Fig. 1) visually captures the compelling correlation between American cheese consumption and CSGP stock performance, illustrating a linear pattern that is as convincing as a perfectly melted slice of American cheese on a burger. This visual representation leaves a lasting impression, akin to the delightful aftertaste of a well-crafted cheese board at a fine-dining establishment.

Our findings not only provide food for thought but represent a stepping stone in the "gouda" journey of uncovering unorthodox indicators in the realm of financial markets. It appears that the stock market might indeed have a "feta-ish" for dairy products, and who knows — perhaps the next time someone mentions "investing in cheese," they might be onto something "grate" after all.

#### Discussion

The results of our analysis have provided compelling evidence for a significant positive correlation between American cheese consumption and CSGP stock performance, aligning with previous research suggesting that unconventional indicators indeed hold a "gouda" deal of influence on financial markets. The findings affirm the curdious speculation put forth by Smith et al. and Doe and Jones, articulating a "cheesy" correlation between dairy consumption and economic activity. It seems that

the connection between cheese consumption and CSGP stock performance is not just a "whey-ward" mystery after all.

The robust correlation coefficient of 0.8593004 underscores the magnitude of the relationship, lending further credibility to the notion that there may be more to cheese consumption than meets the eye. This correlation is as "gouda" as it gets in the world of financial research, indicating a strong positive association between American cheese consumption and CSGP stock price. The r-squared value of 0.7383971 echoes the subtle yet profound influence of cheese on stock performance, akin to the rich flavor profile of a well-aged cheddar.

Furthermore, the statistical significance of the p-value less than 0.01 reinforces the veracity of the observed correlation, accentuating the "cheese-mystique" that permeates the world of financial markets. The scatterplot reveals a linear pattern as compelling as a perfectly melted slice of American cheese, visually solidifying the hypothesis that there may be a direct link between cheese consumption and stock performance.

In essence, our findings not only add a slice of provolone to the dialogue about unconventional indicators but also illustrate the "feta-l" potential of dairy products in shaping market trends. Perhaps, the next time someone mentions "investing in cheese," they might be on to something "grate" after all. So let's embrace the "brie-lliance" of our results and continue to explore the "cheesy" opportunities for uncovering unorthodox predictors of financial performance.

As this research continues to mature, we encourage further investigation into the "power of provolone" and the "mystique of mozzarella" in influencing stock performance, acknowledging that the financial world may indeed have a "feta-ish" for dairy products. This study serves as a reminder that within the sober arena of economic research, there's always room for a little "cheese-y" investigation.

## Conclusion

In conclusion, our research has gratefully contributed to the expanding body of evidence regarding the unexpected influence of American cheese consumption on the stock market, particularly in the context of CoStar Group's performance. With a correlation coefficient of 0.8593004 and a p-value less than 0.01, our findings indicate a caws for understanding the role of dairy in financial markets. The r-squared value of 0.7383971 proves that the impact of cheese on CSGP stock price is not just a muenster-sized myth, but a statistically significant reality. The cheese stands alone as a potential indicator of market fluctuations, leaving us with a taste for further investigation into the wheyward ways of unusual economic indicators.

We must acknowledge the potential limitations of our study, such as the possibility of confounding variables or the unpredictability of market dynamics, but we remain confident in the validity and relevance of our results. As the literature continues to mature, our research injects a fresh slice of provolone into the mix, expanding the horizons of financial analysis in ways that may seem unconventional but are undeniably captivating.

Ultimately, our findings urge us to reconsider the idiom "the big cheese in the stock market" and embrace the notion that there may be more to this than meets the eye. We must "brie" proud of the strides we have made in unraveling this "gouda" mystery. Our study lightheartedly invites fellow researchers to further explore the intriguing interplay between dairy products and financial markets, but for now, it's time to "whey" no more. It seems that the age-old financial question of "blue chips or cheese slices" may have found its dairying answer, and we assert that no more research is needed in this area.