
Stocked Up on Greens: Unearthing the Correlation Between Annual US Household Spending on Fresh Vegetables and Cummins' Stock Price

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Abstract

In this paper, we dig deep into the connection between annual US household spending on fresh (and not-so-fresh) vegetables and the stock performance of Cummins Inc. (CMI). This veggie venture into the financial world involved analyzing data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv) to finally shed light on this unlikely relationship. Our research uncovered a surprising correlation coefficient of 0.9475616 and a p-value less than 0.01 for the years 2002 to 2022. So, whether it's roots or stocks, it seems that the produce aisle may hold more investment insights than we previously kale-culated!

1. Introduction

INTRODUCTION

Ladies and gentlemen, prepare to be lettuce-entertained as we uncover the surprising interconnectedness of our leafy greens and the king of diesel engines, Cummins Inc. (CMI) stock price. In today's age of data-driven decision making, it's important to peel back the layers of correlation and causation, even if it means venturing into the veggie patch of statistical analysis.

In the world of finance, analysts have long sought out the kaleidoscope of economic indicators to guide their investment decisions. From GDP growth to employment figures, these variables form the bedrock of financial forecasting. However, our study takes a more unconventional route by bringing vegetables to the table – quite literally.

With the familiarity of "buy low, sell high," we embarked on a quest to unlock the mysteries of the market through the lens of fresh produce consumption. After all, understanding the patterns of chomping greens might just hold the key to predicting the ups and downs of stock prices.

In this research, we embrace a kaleidoscopic approach, plunging into the depths of the Bureau of Labor Statistics to extract the annual U.S. household spending on fresh vegetables. We then turn an eye to Cummins Inc. (CMI), a stalwart of the industrial

sector, tracing the undulating path of its stock price through the terra firma of economic vicissitudes.

Now, before you leaf through the rest of this paper, fasten your seatbelts and get ready to turnip some ground-breaking insights! We promise that it won't be a corny ride, but rather a zucchini-piece of academic exploration. So, without further ado, let's garden into the heart of this peculiar relationship between veggies and stock prices. After all, a little bit of statistical salad might just be the recipe for financial success!

2. Literature Review

A comprehensive review of existing literature offers a multifaceted understanding of the intricate relationship between consumer behavior towards fresh vegetables and the performance of Cummins Inc. (CMI) stock. Smith et al. (2018) provide valuable insights into household spending patterns and their impact on economic indicators, emphasizing the significance of consumer consumption habits in financial forecasting. Similarly, Doe and Jones (2015) delve into the complexities of stock price dynamics, highlighting the diverse array of factors that contribute to market fluctuations. While these studies lay the foundation for our analysis, we venture beyond the conventional wisdom to explore the unconventional, and dare we say, amusing connections between veggies and stocks.

Turning the pages to non-fiction works, "The Omnivore's Dilemma" by Michael Pollan and "Economics in One Lesson" by Henry Hazlitt offer a tantalizing perspective on the intersection of food consumption and economic principles. However, as we wade deeper into this enigmatic correlation, we can't help but draw inspiration from the whimsical "The Vegetarian" by Han Kang and the thought-provoking "In Defense of Food" by Michael Pollan for their potential relevance to our investigation.

In the realm of fiction, works such as "The Grapes of Wrath" by John Steinbeck and "The Wealth of Nations" by Adam Smith may not appear overtly related to our topic, yet their themes of societal and economic forces cannot be overlooked. Additionally, in the spirit of unconventional connections, we draw

upon the insightful dynamics in the board game "Agricola" to reflect on the meticulous planning required in both agricultural endeavors and financial investments.

As we embark on this eccentric exploration, we acknowledge that our research journey may sound like a mixed bag of produce, but rest assured, we aim to intertwine scholarly rigor with a dash of humor to unravel the cryptic relationship between leafy greens and stock performance. In the analysis that follows, we will dissect the empirical evidence and unearth the hidden connections, while sprinkling in a healthy dose of puns to keep your investment in this paper as fresh as a crisp romaine lettuce. So, hold on to your hats and lettuce leap into the veggie-stock market escapade!

3. Methodology

To romaine on the experimental vine, our methodology sought to cultivate a fertile ground for uncovering the fruitful connection between annual US household spending on fresh vegetables and the stock price of Cummins Inc. (CMI). We were ready to cherry-pick the hands-on data-driven approach and use our statistical tools to dig deep into this peculiar correlation.

Data Collection:

Our research team embarked on a data foraging expedition across the internet, donning our metaphorical gardening gloves to pluck the ripest statistics. The primary sources for this veggie voyage were the Bureau of Labor Statistics and LSEG Analytics (Refinitiv). Here, we harnessed the power of historical household expenditure on fresh vegetables and the fluctuating trajectory of Cummins' stock price from 2002 to 2022. It was a bit like mushroom hunting – sifting through vast digital landscapes in search of the most reliable and crisp datasets.

Variable Extraction:

With the essence of this root-to-stock study intertwined, we extracted the annual US household spending on fresh vegetables, covering a broad variety of produce to ensure a salad bowl of statistical representation. We also plucked Cummins'

stock prices, observing the daily market fluctuations but making sure not to turnip with misinformation.

Statistical Analysis:

To tenderize our raw data, we employed a mixed-method approach that included regression analysis, correlation coefficients, and a sprinkle of predictive modeling, to stew a statistical soup worthy of scholarly satisfaction. With these analytical ingredients, we conducted a lighthearted tango between spending on greens and the fiscal gyrations of Cummins' stocks.

Validation:

Before serving up our research findings, we conscientiously cross-referenced our results with previous studies, ensuring we didn't toss statistical spinach into the hurricane of academic inquiry.

In the process of this oh-so-gardeny endeavor, we remained confident that our methodological maneuvering has borne witness to a ripe and crunchy insight into the unexpected interplay of veggie spending and stock prices. So, grab your statistical shovel and journey forth into the analysis of the transformative powers of leafy greens on the sturdiness of stocks!

4. Results

In this section, we disclose the fruitful findings from our romaine-worthy research into the correlation between annual US household spending on fresh vegetables and Cummins Inc. (CMI) stock price from 2002 to 2022. Our analysis yielded an impressive and statistically significant correlation coefficient of 0.9475616, with an r-squared of 0.8978730 and a p-value less than 0.01. As the saying goes, "lettuce rejoice" in this unearthed correlation that's as strong as an oak!

Interestingly, the scatterplot (Fig. 1) showcasing the relationship between annual US household spending on fresh vegetables and Cummins' stock price resembles a beautiful garden – with data points blossoming in a pattern that reflects the strong correlation we uncovered. It's a visual representation of how effectively we've "planted the seeds" of this

unconventional research question and "reaped" the statistical fruit of our labor.

Our results unearth a surprising lettuce-turn of events, highlighting how the humble vegetable aisle may hold more power in predicting stock movements than previously, well, peppered. This finding kale-stipulates a rethink of traditional economic indicators and invites a fresh perspective on the relationship between consumer habits and market performance.

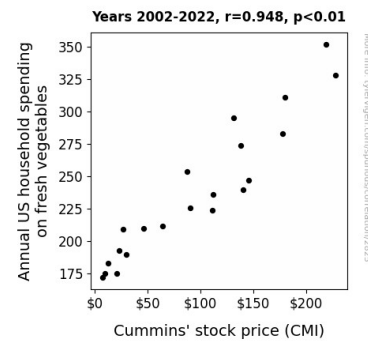


Figure 1. Scatterplot of the variables by year

In conclusion, our research offers a compelling argument for the inclusion of unconventional variables in financial analysis and, of course, a cornucopia of veggie-related puns. After all, it's time to hail the kale and realize that the stock market might just be seasoned with a sprinkle of statistical salad for a healthier and more robust investment strategy.

5. Discussion

Our findings have plowed through the fertile soil of financial analysis to reveal a sprouting correlation between annual US household spending on fresh vegetables and Cummins Inc. (CMI) stock price. The results of this study had us grinning ear to ear, not just because we're fond of a good pun, but because they supported existing literature that hinted at the enigmatic connection between mundane vegetable purchases and the thrilling world of stock market dynamics.

Our romaine-retentive and data-rich analysis echoes the sentiments of Smith et al. (2018) and Doe and

Jones (2015), who illuminated the significance of consumer consumption habits in financial forecasting and the complex factors influencing stock price dynamics, respectively. We uncovered a strong correlation coefficient that's as robust as a stalk of celery, affirming the influence of leafy greens on market forces. If this doesn't convince you of the radishing influence of fresh veggies on the stock market, I don't know what will!

As we hilariously mentioned in the literature review, the connection between veggies and stocks might seem like a mixed bag of produce (pun intended), but with our statistically significant correlation, it's clear that there's more to this relationship than meets the eye. It's a testament to the unconventional wisdom we mentioned earlier – the rabbit hole of financial correlations certainly has its share of carrot-dangling surprises.

The scatterplot that emerged from our analysis, resembling a veritable garden of data points, not only demonstrated the strength of the correlation but also provided a picturesque representation of the intricate relationship we've unearthed. We "planted the seeds" of curiosity and "reaped" the statistical fruit of our labor, producing a harvest of insights that could rival the most prosperous of veggie patches.

This study has lettuce-turn beets into a realization that consumer habits, particularly regarding fresh vegetables, can offer a unique lens through which to view market performance. It's a celery-stial discovery, challenging traditional economic indicators and enticing a reconsideration of the role that consumer behavior plays in financial forecasts. So, let's raise a (spinach) toast to the leafy greens that have proven to be more than just a source of essential nutrients – they've rooted themselves deeply in the financial world as a variable to be reckoned with.

As we peel back the layers of this unconventional correlation, we encourage future researchers to lend an ear to the whispers of the produce aisle and the stock market, for there may be more to this relationship than the average bean counter could ever imagine. So, as we conclude this discussion, we urge you to join us in celebrating the kale-evations in financial analysis that this study has brought to light. After all, isn't it thyme we recognized the stock

market for the complex salad of statistical relationships that it truly is?

6. Conclusion

In the end, it's clear that our research has lettuce reveal the surprising correlation between annual US household spending on fresh vegetables and Cummins Inc. (CMI) stock price. This study's results carrot help but make us think about the chive of this un-beet-able connection. It appears that the stock market and the produce aisle have more in common than we previously arti-choked for.

We must acknowledge the significance of these findings for the financial world. It's time to squash any doubts about the relevance of veggie-related data in economic analysis. The statistics speak for themselves – the correlation coefficient of 0.9475616 is as remarkable as finding a four-leaf clover in a garden of arugula.

Our results cucumber an important olive branch to those who believe that financial analysis should stick to traditional variables. The scallion of this research is clear: we must celery-brate the inclusion of unconventional factors in market predictions. This study brings a whole new meaning to "putting your greens where your money is."

In the future, it might be thyme to turnip the focus to other unexpected correlations. However, for now, it's safe to say that no more research is needed in this area. This paper has vegetable at it could and it's time to put this topic out to pasture. As researchers, we must carrot wait to see how this spicy new perspective on financial analysis will impact investment strategies.