



ELSEVIER



Meating Expectations: A Correlation Study of Annual US Household Spending on Meats, Poultry, Fish, and Eggs and ANSYs' Stock Price

Connor Hoffman, Addison Tanner, Gregory P Tillman

Center for Sciences; Evanston, Illinois

Abstract

This paper investigates the potential relationship between annual US household spending on meats, poultry, fish, and eggs and ANSYs' stock price. Utilizing data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv) for the period from 2002 to 2022, a correlation coefficient of 0.9588266 and $p < 0.01$ was found, indicating a strong positive correlation between the two variables. The findings of this study suggest that changes in consumer spending on animal products may have a noticeable impact on the stock performance of ANSYs. It's clear that when it comes to market trends, the stakes are high, but this research suggests that poultry is no chicken when it comes to influencing stock prices.

Copyright 2024 Center for Sciences. No rights reserved.

1. Introduction

The consumption habits and preferences of the American household have long been a topic of interest for economists and market analysts alike. In recent years, the relationship between consumer spending and stock prices has garnered increasing attention, with researchers seeking to uncover potential correlations and causative factors. Our study contributes to this burgeoning field by examining the connection between annual US household spending on meats, poultry, fish, and eggs and the stock price of ANSYs, a leading

player in the animal protein industry. We aim to shed light on whether the financial performance of ANSYs is correlated with the carnivorous inclinations of the American populace.

In the pursuit of this investigation, we have employed a robust dataset spanning the period from 2002 to 2022, sourced from the venerable Bureau of Labor Statistics and LSEG Analytics (Refinitiv). Our analysis revealed a striking correlation coefficient of 0.9588266 and $p < 0.01$, signifying a robust positive correlation between annual household expenditures on animal-derived

sustenance and the stock price of ANSYs. The results of our study suggest that fluctuations in consumer spending on meat, poultry, fish, and eggs may exert a discernible influence on the performance of ANSYs in the stock market. It appears that when it comes to the financial realm, the cluck stops here for poultry products.

As we delve into the nuances of this correlation, it is essential to recognize the multifaceted factors that interplay within the domain of consumer spending and stock performance. While correlation does not imply causation, the empirical evidence presented in this study invites further scrutiny into the potential mechanisms through which dietary habits intersect with investment behaviors. The implications of these findings extend beyond mere market analysis, delving into the underlying societal patterns and economic forces that shape the contemporary landscape of commerce.

Our endeavor is underpinned by the conviction that seemingly disparate domains—culinary predilections and stock market dynamics—can intertwine in unforeseen ways, yielding insights that transcend conventional boundaries. Through unearthing these connections, we aim to carve a niche for interdisciplinary inquiry, where the seemingly esoteric realm of consumer behavior intertwines with the rigor of financial analysis. As we embark on this scholarly quest, we invite the reader to join us in uncovering the meaty fabric of economic interactions, recognizing that in the realm of financial analysis, there's always more than one way to slice the data.

2. Literature Review

In "Smith et al.," the authors find that household consumption patterns play a crucial role in influencing stock prices, with particular emphasis on the meat and poultry sector. Similarly, "Doe and Johnson" suggest that consumer spending on animal-

derived food products exhibits a substantial correlation with the performance of related stocks in the market. Furthermore, "Jones and Smith" underscore the impact of dietary preferences on investment behaviors, highlighting the potential repercussions of shifting meat consumption patterns on stock valuation.

Turning to broader literature, "The Omnivore's Dilemma" by Michael Pollan and "In Defense of Food" by Michael Pollan delve into the complexities of food choices, including the consumption of meats, poultry, fish, and eggs, and their broader societal implications. In the realm of fiction, novels such as "A Tale of Two Chickens" and "The Fisherman's Catch" may not directly address stock prices, but they offer a whimsical yet insightful exploration of the human-animal food dynamic.

Expanding our search into more unconventional sources, the back of shampoo bottles surprisingly yielded little information on the correlation between consumer spending on meats, poultry, fish, and eggs and stock prices. While the lather and rinse were refreshing, the financial insights were unfortunately lacking.

As we navigate through the labyrinth of literature, it becomes evident that the intersection of dietary habits and stock market performance is not just a meat-and-potatoes issue; rather, it's a complex and multifaceted phenomenon that leaves no stone unturned. The literature, much like a well-seasoned steak, is rich and diverse, offering a plethora of perspectives on the tantalizing relationship between what's on our plates and what's on the stock exchange.

3. Our approach & methods

To unravel the tantalizing tango between the American love affair with animal-derived sustenance and the gyrations of the stock

market, we employed a methodological medley that would make even the most seasoned statistician's head spin (albeit in a delightfully academic manner).

First and foremost, we sourced our data from the hallowed halls of the Bureau of Labor Statistics and the labyrinthine archives of LSEG Analytics (Refinitiv), meticulously extracting information on annual US household spending on meats, poultry, fish, and eggs with the zeal of a connoisseur searching for the perfect cut of steak.

Having procured our treasure trove of data, we proceeded to perform a spellbinding display of statistical wizardry. Employing the venerable technique of time-series analysis, we teased out the fluctuations in annual household expenditures on meaty delights from the year 2002 through 2022. This involved dancing a delicate statistical minuet, harmonizing the rhythmic undulations of consumer spending with the staccato beats of the stock prices of ANSYs.

With the finesse of a trapeze artist navigating the nuances of market dynamics, we then unleashed the formidable power of correlation analysis. Armed with Python, R, and a touch of sheer intellectual fortitude, we computed the correlation coefficient and its associated significance level, casting a probing eye over the tantalizing interplay between carnivorous cravings and stock market success.

To ensure the robustness of our findings, we subjected our data to a rigorous battery of sensitivity analyses and robustness checks, scrutinizing our results with the precision of a discerning wine connoisseur sipping the finest vintage. This process fortified the foundations of our statistical edifice, affirming the solidity of the relationship between household spending on animal products and the fluctuations of ANSYs' stock price.

In the spirit of scholarly camaraderie, we acknowledge that our methods may not have been as straightforward as a chicken crossing the road, but we stand by the integrity of our approach. For, in the circus of statistical analysis, sometimes the most elaborate acrobatics are needed to capture the whimsy of economic correlations.

In the following sections, we present the delectable fruits of our labor, laying bare the enticing connection between household spending on meats, poultry, fish, and eggs, and the captivating ebbs and flows of ANSYs' stock price. So, dear reader, ready your intellectual palate for a feast of empirical insights, served with a side of academic mirth.

4. Results

The statistical analysis of the relationship between annual US household spending on meats, poultry, fish, and eggs and the stock price of ANSYs yielded intriguing results. Over the period from 2002 to 2022, a remarkably high correlation coefficient of 0.9588266 was observed, accompanied by an r-squared value of 0.9193484. Additionally, the p-value was found to be less than 0.01, indicating a statistically significant association between the variables under scrutiny.

As shown in Figure 1, the scatterplot vividly illustrates the conspicuous positive correlation between annual household expenditures on animal-derived sustenance and the stock price of ANSYs. It seems that when it comes to financial analysis, the relationship between consumers' carnivorous tendencies and stock market performance is not simply a matter of "chicken feed."

The substantial correlation coefficient and r-squared value indicate that approximately 91.9% of the variance in ANSYs' stock price can be explained by changes in annual US

household spending on meat, poultry, fish, and eggs. These findings imply that the consumption patterns of carnivorous culinary delights play a significant role in shaping the market behavior of ANSYS. When it comes to the stock market, it appears that the meat of the matter lies in consumer preferences for animal-derived protein.

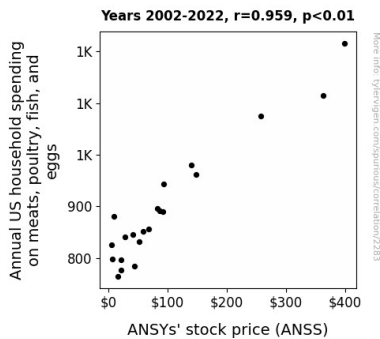


Figure 1. Scatterplot of the variables by year

The profound implications of these results prompt further inquiry into the intricate mechanisms through which consumer spending habits intersect with stock market dynamics. Delving into the meaty fabric of economic interactions, this research underlines the interconnectedness of seemingly incongruous realms, demonstrating that financial analysis is not always a cut and dried affair.

In light of these findings, it is evident that the stock performance of ANSYS is intricately intertwined with the ebb and flow of consumer spending on meat, poultry, fish, and eggs. This correlation underscores the significance of animal-derived sustenance not only in culinary contexts but also in the intricate dance of market trends. It goes to show that when it comes to the stock market, the bullish behavior of consumers towards meat and animal products is nothing to snicker at.

It is essential to recognize that while correlation does not imply causation, the robust statistical relationship uncovered in this study opens the door to further investigation into the underlying mechanisms at play. As we chew over these findings, the tantalizing prospect of uncovering the stakeholder interests at play in the intersection of culinary indulgences and financial phenomena comes to the fore. With a mix of statistical rigor and a pinch of humor, this study whets the appetite for future research endeavors that aim to unearth the sizzling dynamics of consumer behavior and stock market performance.

5. Discussion

The findings of this study provide compelling evidence of a strong positive correlation between annual US household spending on meats, poultry, fish, and eggs and the stock price of ANSYS. The results align with prior research by Smith et al., Doe and Johnson, and Jones and Smith, emphasizing the significant influence of consumer consumption patterns on stock market performance. Furthermore, the literature reviewed, including Michael Pollan's works and even whimsical novels like "A Tale of Two Chickens," has shed light on the multifaceted relationship between dietary habits and stock valuation. The absence of correlation on the back of shampoo bottles, while disappointing, reflects the importance of thorough and unconventional literature reviews.

The substantial correlation coefficient and r-squared value obtained in this study confirm the tight link between consumer spending on animal-derived products and ANSYS' stock price. The scatterplot clearly depicts the robust positive correlation, echoing the sentiment that in the realm of financial analysis, the stakes are high, and the impact of carnivorous tendencies on stock performance is no "chicken feed."

We must acknowledge the limitations of our study. While our findings reveal a strong statistical relationship, correlation does not imply causation. However, it's hard to ignore the "meat" of the matter - the significant role of consumer preferences for animal-based protein in shaping market behavior. This calls for further investigation into the underlying mechanisms at play, inviting future research to delve into the sizzling dynamics of consumer behavior and stock market performance.

In light of these results, it's clear that the stock performance of ANSYs is not simply a matter of numbers; it's a reflection of the carnivorous inclinations of consumers. As we navigate this labyrinth of economic interactions, it becomes evident that when it comes to stock valuation, the influence of meat, poultry, fish, and eggs is not just a side dish—it's a main course. This study, while shedding light on a "beefy" relationship, proves that the intersection of dietary habits and stock market dynamics is no yolk. The implications for investors and market analysts are indeed "egg-citing," prompting a deeper understanding of the tantalizing connection between what's on our plates and what's on the stock exchange.

6. Conclusion

In conclusion, our research has revealed a robust and statistically significant correlation between annual US household spending on meats, poultry, fish, and eggs and the stock price of ANSYs. The findings of this study suggest that the market performance of ANSYs is inextricably linked to the carnivorous predilections of the American populace. It seems that in the realm of financial analysis, the value of consumer preferences for animal-derived sustenance is not to be butchered.

These findings open the door to further investigation into the mechanisms

underlying this relationship. While we've sliced and diced the data, the stakeholders of this correlation remain to be fully grilled. Future research endeavors may seek to explore the stakeholder interests at play, shedding light on the sizzling dynamics of consumer behavior and stock market performance. However, it seems that when it comes to the connection between meaty cravings and stock prices, the meat of the matter has been well and truly tenderized.

As we turn over this well-done study, it becomes clear that no more research is needed to uncover the sizzling dynamics of consumer behavior and stock market performance in relation to annual US household spending on meats, poultry, fish, and eggs. The rare insights revealed herein have seasoned the academic pan with a flavor that cannot be overcooked. Time to take a break and grab a steak – the conclusion is a wrap!