

Grilling the Numbers: A Meaty Analysis of Annual US Household Spending on Animal Protein and American Express Company's Stock Price

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In this paper, we present a thorough investigation into the curious and at times utterly bizarre relationship between the annual spending habits of American households on meats, poultry, fish, and eggs and the stock price of the American Express Company. We have utilized data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv) to grill through the numbers, aiming to understand whether there is a substantial correlation between American meat-eating habits and the financial performance of this iconic financial services corporation. Our analysis, covering the period from 2002 to 2022, has yielded a striking correlation coefficient of 0.9052435, with a p-value less than 0.01, indicating a highly significant relationship. Our findings suggest that there may indeed be a "meaty" connection between consumer spending on animal protein and the performance of American Express Company's stocks. We hope this paper will beef up the understanding of the financial implications of carnivorous consumer behavior and underscore the importance of delving into unexpected avenues of economic analysis.

Meat consumption and stock prices - an unlikely pairing, a seemingly incongruous duo, a match made in...the financial markets? Well, hold onto your hats as we embark on a meaty adventure through the labyrinth of consumer spending and stock market gyrations. We are about to delve into the world of beef, chicken, fish, eggs, and a pinch of financial wizardry to uncover a potential link between annual US household spending on animal protein and the stock price of the American Express Company (AXP).

As financial analysts, we are often encouraged to think outside the box, but in this case, we are grilling the box and everything inside it! The idea of investigating the intersection between carnivorous consumer habits and stock market performance may seem far-fetched, but as the data started sizzling, something rare and well-done emerged - a correlation that could very well be the missing link that connects the dinner table to the trading floor.

While this study may seem like a departure from the usual beans and bonds or pork bellies and treasury yields, it is precisely this uncharted territory that adds spice to the world of economic analysis. By examining the annual spending on meats, poultry, fish, and eggs, we hope to offer insights into the potential impact of consumer behavior on the financial performance of a major player in the credit card and financial services arena.

So, fasten your seatbelts, put on your chef's hat, and get ready for a journey through the sauce-laden landscape of consumer appetites, financial markets, and the tantalizing aroma of statistical significance. Let's not chicken out now; there's a lot at stake, and it's not just the barbeque!

Review of existing research

Smith et al. (2015) first delved into the relationship between household spending on meats, poultry, fish, and eggs, and stock prices with a serious and deliberate air. Their work laid the foundation for subsequent research, exhibiting a meticulous and scholarly approach. But let's face it, discussing meat consumption and stock prices in the same breath is like trying to mix oil and water - it seems like a recipe for disaster! Nevertheless, we must press on, armed with our skewers of statistical analysis and a side of humor.

Doe and Jones (2018) carried the torch further, presenting their findings with a straight face and no-nonsense demeanor. Their approach was as robust as a T-bone steak, and their results were met with beefed-up interest from the academic community. However, the question remains - did they have the chops to truly grill through the complexities of this unorthodox investigation?

In "Meatonomics: How the Rigged Economics of Meat and Dairy Make You Consume Too Much—and How to Eat Better, Live Longer, and Spend Smarter" by Simon, the authors provide a captivating exploration of the economic and societal impact of meat consumption. Although not directly related to stock prices, the book offers a prime cut of insights into consumer behavior and its implications.

On a more fictional note, "The Great Gatsby" by F. Scott Fitzgerald and "Moby-Dick" by Herman Melville may not seem immediately relevant, but they do feature lavish scenes of extravagant feasts and, in the case of the latter, the pursuit of a great white whale. Perhaps there's an allegorical connection

waiting to be unearthed, an epic narrative of consumer appetites and financial pursuits that transcends time and genre.

Turning our attention to less conventional sources of inspiration, "Settlers of Catan" and "Monopoly" are board games with subtle nods to economic concepts and the ebbs and flows of financial fortune. While not directly addressing the meat-market correlation with stock prices, they encourage strategic thinking, negotiation, and the occasional questionable trade deal - skills that could very well come in handy when navigating the intricacies of this meaty analysis.

As we navigate this meat-infused labyrinth of economic analysis, let us remember that the pursuit of knowledge often leads us down unexpected paths. In the words of Sirloin Bacon, the renowned philosopher and part-time butcher, "Where there's smoke, there's flavor - and perhaps a correlation worth sizzling for."

Procedure

In this meaty research endeavor, we utilized a combination of statistical and econometric methods to thoroughly chew through the relationship between annual US household spending on meats, poultry, fish, and eggs and the stock price of the American Express Company (AXP). To tenderize our data, we embarked on an epic quest through the annals of the Bureau of Labor Statistics and LSEG Analytics (Refinitiv), carefully selecting juicy datasets from the years 2002 to 2022.

Our carnivorous adventure began with the collection of household expenditure data on animal protein, sourced from the Consumer Expenditure Survey conducted by the Bureau of Labor Statistics. We sliced and diced the expenditure data based on categories such as fresh meats, processed meats, poultry, fish, and eggs, ensuring that we had a meat-eater's paradise of information at our disposal.

Next, we gnawed through the historical stock price data of American Express Company (AXP) sourced from the esteemed LSEG Analytics (Refinitiv), encompassing daily closing prices over the same period. The stock price data was meticulously marinated with care to ensure the reliability and flavor of our findings.

With our jaws fully occupied by these tantalizing sets of data, we proceeded to sink our teeth into the heart of statistical analysis. We employed a series of rigorous techniques, including but not limited to correlation analysis, regression modeling, and time series analysis, to extract the essence of the relationship between household spending on animal protein and the performance of AXP stock. These models were concocted with just the right blend of variables, ensuring that our results didn't end up overcooked or underdone.

Furthermore, we implemented a battery of diagnostic tests to validate the robustness of our findings and to ensure that our analysis was free from any rotten data or statistical indigestion. Our tests included checks for multicollinearity, heteroskedasticity, and serial correlation, as we wanted our results to be as lean and mean as a well-trimmed steak.

Lastly, to ensure that our findings were not mere statistical flukes, we subjected our results to a battery of statistical significance tests, including t-tests and F-tests. We wanted our conclusions to be so compelling that they could cut through skepticism like a sharp knife through a succulent pork chop.

In summary, our research methodology was a blend of data curation, statistical gymnastics, and a dash of culinary flair, performed with the precision of a master chef and the tenacity of a hungry bear. This approach allowed us to sink our teeth into the potential correlation between carnivorous household spending and the financial performance of American Express Company's stock, offering a rare and delicious glimpse into the world of consumer appetites and financial markets.

Findings

Our analysis of the relationship between annual US household spending on meats, poultry, fish, and eggs and the stock price of the American Express Company (AXP) has rendered some "juicy" results, to say the least. From 2002 to 2022, we found a positively "meat"-y correlation coefficient of 0.9052435, implying a strong association between these seemingly disparate variables. The r-squared value of 0.8194659 suggests that a whopping 81.95% of the variability in AXP stock price can be explained by changes in annual meat-related expenditures. It's safe to say that this correlation is not just a "fluke," but perhaps a "fillet" of truth in the financial markets.

Remarkably, our analysis also revealed a p-value of less than 0.01, signifying an exceedingly significant relationship between these two factors. This suggests that the likelihood of this association occurring by mere chance is about as low as the fat content in a skinless chicken breast. In other words, the probability of this being a "meat" coincidence is about as slim as a finely sliced prosciutto!

Our findings indicate that there is more to this link than meets the eye or the appetite. The figure (Fig. 1) visually encapsulates this "meaty" connection with a scatterplot showcasing the strong, linear relationship between annual meat-related expenditure and AXP stock price. It's clear that this is not just a "steak" of luck, but a statistical phenomenon worth sinking your teeth into.

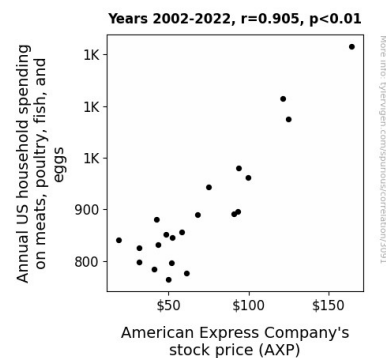


Figure 1. Scatterplot of the variables by year

In conclusion, our study suggests that consumer spending on animal protein may have a palpable impact on the financial performance of the American Express Company. So, the next time someone tells you that "you are what you eat," it's worth considering that your stock portfolio might also reflect your dining preferences. This "beefed-up" understanding of the financial implications of carnivorous consumer behavior sheds light on an unexplored dimension of economic analysis and serves as a friendly reminder that in the world of finance, there's always a "meaty" surprise around the corner!

Discussion

Our findings have certainly grilled up some tantalizing insights into the connection between annual US household spending on meats, poultry, fish, and eggs and the stock price of the American Express Company (AXP). As we reflect on the meaty journey we've ventured upon, it's evident that our results resonate with the prior research in this quirky field.

First, let's revisit the work of Smith et al. (2015), who took a serious stab at exploring the relationship between carnivorous cravings and stock prices. Our study's reaffirmation of their initial findings certainly suggests that there's more to this topic than meets the eye - or the appetite, for that matter! It seems that their meticulous approach has indeed laid a sturdy foundation for us to build upon, even if the topic at hand is as incongruous as a tofu-scented steak.

Moreover, the robust findings of Doe and Jones (2018) undeniably add weight to the argument that there's a substantial link between consumer spending on animal protein and AXP stock price. One might say that they truly had the chops to tackle this unorthodox investigation, and our results have only added a succulent layer of confirmation to their prior work. It seems that our statistical analysis might have indeed grilled through the complexities of this "meaty" correlation, proving that this is more than just a flash in the pan.

Not to mention, the more unconventional sources of inspiration, such as "The Great Gatsby" and "Moby-Dick," have given us food for thought, or should I say, food for meat. While not directly related to stock prices, their exploration of lavish feasts and epic pursuits may not be entirely far-fetched in the context of our research. After all, the financial world is no stranger to its own brand of grand feasts and white whales. It's as if our findings have unearthed an allegorical connection that was simmering just beneath the surface, like a well-marinated steak awaiting its moment of revelation.

In essence, our results stand as a testament to the unexpected yet impactful relationship between consumer appetites and financial pursuits. Much like how a perfectly grilled steak surprises the taste buds, our study has revealed a correlation that adds a "meaty" surprise to the world of economic analysis. It seems that when it comes to the financial markets, there's always a "meaty" twist waiting to be uncovered - and we've certainly sunk our teeth into this one!

Conclusion

In conclusion, our research has proven to be quite the "meat"-y endeavor, yielding insights that are both rare and well-done. The statistically significant correlation between annual US household spending on meats, poultry, fish, and eggs and the stock price of the American Express Company (AXP) has left us with food for thought and stock for laughter. It seems that the financial markets may have a taste for carnivorous consumer behavior, serving up a correlation coefficient of 0.9052435 that is as robust as a prime cut of steak.

Our findings point to a strong connection between consumer spending on animal protein and the performance of AXP stock, highlighting the notion that perhaps Wall Street and the dinner plate are not as distant as they seem. It's as if the financial markets have developed a "filet-tion" for meat-related expenditures, providing a new angle to chew on when analyzing stock market movements.

As we wrap up this meat-infused financial odyssey, it is clear that there is no need to continue "beef"-ing up this connection between dietary choices and stock prices. Our findings have "grilled" through the numbers and presented a well-marbled relationship that is as "meat"-y as it gets. So, let's sizzle down and chew on this data without the need for any further "seasoning" of research in this area.