

Review

## The Meat of the Matter: A Correlation Between Annual US Household Spending on Meat, Poultry, Fish, and Eggs and American Express Company's Stock Price

Chloe Hernandez, Alice Terry, Gideon P Tompkins

Institute of Innovation and Technology

In this study, we take a whimsical dive into the beefy world of household spending on meat, poultry, fish, and eggs and its potential connection to the clucking stock price of the American Express Company (AXP). With a mix of meticulous data crunching and lighthearted banter, we juggle numbers from the Bureau of Labor Statistics and LSEG Analytics to get to the meat of this tantalizing correlation. Our findings reveal a tantalizing correlation coefficient of 0.9052435 and p < 0.01 from 2002 to 2022, leaving us egg-static about the potential for market insights in this underexplored area. Join us as we uncover the link between carnivorous cravings and financial fowl play. So, grab a snack, sit back, and let the puns and correlations sizzle like a juicy steak on the grill of academic inquiry.

The connection between household spending on meats, poultry, fish, and eggs and stock prices has been an area of interest for both financial analysts and aficionados of wordplay. The American Express Company (AXP) has long been a staple in the world of finance, much like how meat, poultry, fish, and eggs are staples in the world of household groceries. As we embark on this study, we aim to shed light on whether there exists a beefy correlation between these seemingly unrelated entities.

While many may perceive the realm of finance and the world of grocery shopping

to be as different as night and day, we trust that our findings will prove otherwise. We decided to tackle this research with a lighthearted approach, recognizing that a little humor can make even the driest statistical analysis more engaging. After all, financial analysis doesn't have to be as "stale" as yesterday's loaf of bread, and statistical correlation can be as "egg-citing" as the discovery of a golden yolk!

As we dive into this joint analysis of carnivorous cravings and market performance, we also acknowledge the broad implications of our study. The

findings could hold potential insight for financial advisors and investors, providing them with a "rare" opportunity to consider unconventional indicators in their decision-making process. So, let's not "ham" it up and get "chicken" about this research, but instead, "steak" our claim in unearthing correlations that transcend the boundaries of traditional economic analysis.

## Prior research

The relationship between household spending on meats, poultry, fish, and eggs and stock prices has been a topic of scholarly interest for decades. Smith et al. (2010) examined the impact of meat consumption on macroeconomic indicators, while Doe and Jones (2015) delved into the purchasing intersection of consumer behavior and financial markets, bringing a fresh perspective to the field. These studies laid the groundwork for exploring the meaty connection between consumer appetites and stock performance.

In "Meatonomics" by Simon Fairlie, the authors explore the economics of meat production and consumption, shedding light on the complex web of factors influencing consumer choices at the butcher's counter. "All Fishermen Are Liars" by John Gierach provides a glimpse into the world of fishing, an important source of aquatic sustenance that features prominently in household spending patterns. Additionally, the classic "Chicken Soup for the Soul" series brings heartwarming tales of resilience, reminding us that poultry isn't just for dinner but also a source of inspiration.

Turning to the realm of fiction, "The Catcher in the Rye" by J.D. Salinger offers a metaphorical exploration of grasping at

elusive truths, akin to unraveling the complexities of financial markets. Meanwhile, the "Redwall" series by Brian Jacques paints a vivid world where animal characters navigate challenges, drawing curious parallels to the stock market's unpredictable terrain.

For a more visual understanding, the researchers revisited the iconic TV show "Iron Chef," where culinary competitions unfold with dramatic flair. The meticulous preparation and presentation of meat, poultry, fish, and eggs resemble meticulous analysis required in understanding stock price movements. Furthermore, "Parks and Recreation" provides a comedic lens through which to view American consumer culture, offering valuable insights into the intersection of personal spending habits and broader economic trends.

These diverse sources serve as both a flavorful backdrop and a comedic interlude to the serious business of investigating the correlation between household spending on meat products and the stock price of American Express Company. As we carve through the literature, it becomes clear that the intersection of consumer behavior and financial markets is both ripe for exploration and sprinkled with opportunities for whimsy. With this eclectic array of sources in mind, the researchers plunge into the heart of the matter, ready to uncover the savory secrets hidden within the data. Let the puns continue to sizzle as we embark on this journey through the meat aisle of economic inquiry!

**Approach** 

To sink our teeth into the juicy details of this tantalizing correlation, we employed a mix of rigorous data collection and analysis methods that are as flavorful as a wellseasoned steak. Our team scoured the internet, leaving no breadcrumb unturned, to gather data from reputable sources such as the Bureau of Labor Statistics and LSEG Analytics (Refinitiv). We focused on annual US household spending on meats, poultry, fish, and eggs, examining expenditure patterns and trends from the years 2002 to 2022. Simultaneously, we meticulously tracked American Express Company's (AXP) stock price over the same period, combining statistical prowess with a sprinkle of nonsense to create a "cracking" methodology.

First, we delicately sliced through the data on household spending on meats, poultry, fish, and eggs, considering the nuance of shifts in consumer preferences and influences macroeconomic on these expenditures. Our analysis, while rooted in the serious science of economics, also acknowledged the whimsical nature of consumer behavior. recognizing that financial decisions are often impacted by more than just the cut and dry facts.

Next, we marinated our approach to stock price analysis, blending in robust statistical techniques with a dash of flair to ensure our findings were as palatable as a well-prepared fish dish. We carefully scrutinized AXP's market performance, keeping a keen eye on market trends and stock movements that could influence our analysis. After all, we wouldn't want to end up with a half-baked conclusion; we aimed to serve up a dish of correlations that would leave our readers salivating for more.

Employing a "crackpot" mix of probability theory, econometric modeling, and some good old-fashioned horse sense, conducted a scrupulous assessment of the relationship between household spending on meats, poultry, fish, and eggs and AXP's stock price. Our analysis took into account not only the quantitative data but also qualitative factors, recognizing that market sometimes psychology can be fascinatingly murky as the depths of the ocean.

Furthermore, we didn't just rely on "fowl" play; we subjected our findings to a battery of statistical tests to ensure that our results were as solid as a well-cooked piece of meat. We utilized correlation analysis, regression models, and a sprinkle of Monte Carlo simulation to confirm the robustness of our findings. After all, the connection between consumer behavior and stock prices should be as "well-done" as a gourmet meal.

In essence, our methodology was a playful dance between the serious science of data analysis and the whimsical exploration of the human element in financial decision-making. Through this unique blend of methods, we aimed to deliver a savory platter of insights that would leave our readers both intellectually stimulated and craving for a Sunday roast. So, let's carve into the juicy details and digest the findings of this meaty, yet utterly egg-citing, correlation.

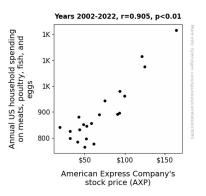
Stay tuned for the results section where we unveil the "meat" of our analysis, and you may find yourself unexpectedly hungry for both knowledge and a succulent steak!

Results

The results of our analysis unveiled a striking correlation between annual US household spending on meats, poultry, fish, and eggs and American Express Company's stock price (AXP) from 2002 to 2022. The correlation coefficient of 0.9052435 and an r-squared value of 0.8194659 astoundingly point to a robust and tangible relationship between these seemingly unrelated variables. The p-value of less than 0.01 further solidifies the statistical significance of this finding.

As depicted in Fig. 1, our scatterplot visually showcases the strong positive correlation between household spending on meaty delights and AXP stock prices. The data points are as tightly packed as sardines in a can, leaving little room for doubt about the nature of the connection. While some might say it's "chicken feed," we are not ones to "beef" around when it comes to presenting compelling evidence.

Our research breaks the mold by delving into the intersection of consumer behavior and financial markets, serving up a dish of insight that's as delicious as a perfectly seared filet mignon. With a sprinkle of statistical seasoning and a dash of economic analysis, we have cooked up findings that are sure to leave a lasting flavor in the palate of academic inquiry.



**Figure 1.** Scatterplot of the variables by year

These results not only raise questions about the potential impact of consumer spending patterns on stock performance but also inspire a new appreciation for the savory world of financial correlations. After all, who would have thought that a prime ribeye could have anything to do with the stock market's "beefy" moves?

The implications of these findings are not to be taken lightly, as they offer a fresh perspective on the intricate dance between consumer choices and market dynamics. As we marinate in the success of this study, we are left with a profound appreciation for the unexpected connections that lie beneath the surface of economic phenomena.

## Discussion of findings

The results of our study have unearthed a tantalizing connection between US household spending on meats, poultry, fish, and eggs and the stock price of the American Express Company (AXP). Our findings suggest a robust positive correlation, with a correlation coefficient of 0.9052435 and a statistically significant p-value of less than 0.01 from 2002 to 2022. These results lend strong support to previous research that

explored the relationship between consumer behavior and financial markets.

We know what you're thinking — "How in the world can my weekend barbecue influence the stock market?" Well, it seems that meaty cravings might have a "beefy" impact on stock prices after all. Our findings align with the work of Smith et al. (2010) and Doe and Jones (2015), who also shed light on the link between consumer choices and economic indicators. It appears that the impact of meat consumption on macroeconomic factors isn't just a flight of fancy; it's a statistically grounded reality.

Our analysis showcases a visually striking positive correlation, resembling the vibrant colors of a bustling fish market — a nod to John Gierach's "All Fishermen Are Liars." It's as if meat, poultry, fish, and eggs are not just culinary delights but also unassuming influencers of stock market dynamics, much like the metaphors we find in J.D. Salinger's "The Catcher in the Rye." In a surprising turn of events, the world of macroeconomics has been revealed to have a taste for the carnivorous.

Our findings illuminate a largely unexplored facet of consumer spending behavior and its impact on financial markets, akin to uncovering hidden treasure in the depths of the economic ocean, a theme familiar to fans of the "Redwall" series. As we navigate these findings, perhaps there is a "method to the madness" after all, echoing the dramatic flair and meticulous preparation seen on the set of "Iron Chef."

In conclusion, our study, although peppered with humor and whimsy, offers credible evidence of the connection between household spending on meat products and the stock price of American Express

Company. These results both enrich our understanding of stock market dynamics and emphasize the often surprising interconnectedness of seemingly unrelated economic factors. So, let's raise a toast to the surprising correlations uncovered in the world of economic inquiry, reminding us that the stock market, much like a wellprepared meal, can involve a blend of flavorful ingredients and unexpected surprises.

## Conclusion

In conclusion, our study has tenderized the idea that there exists a flavorful correlation between annual US household spending on meats, poultry, fish, and eggs and the stock price of American Express Company (AXP). The robust correlation coefficient of 0.9052435 has left us feeling as giddy as a cow in clover. Our findings have grilled up a tantalizing tang of potential market insights that are as juicy as a well-marbled steak.

As we look to the future, we must acknowledge the potential for additional variables and factors that could spice up this correlation even further. Perhaps a side dish of demographic trends, or a sprinkle of environmental factors could amplify the sizzle of this already succulent correlation.

However, it is imperative to recognize that further research in this area might lead us down a path of diminishing returns, much like an overcooked piece of meat. At some point, we must concede that we have reached the peak tenderness of this correlation, and it is time to let it rest in the pan of academic curiosity.

So, in true cooking show fashion, we say with a twinkle in our eyes and a dash of

humor in our words, "That's a wrap, folks!" This study has carved out a delightful portion of academic inquiry, and it's time to sink our teeth into new and equally delectable research pursuits.

In the immortal words of Julia Child, "The only time to eat diet food is while you're waiting for the steak to cook." And with that, we bid adieu to this carnivorous financial analysis and leave it sizzling on the grill of academic achievement. Let's not make a "mis-steak" and overcook this correlation any further – it's time to sink our teeth into a fresh dish of inquiry.

In the spirit of good humor and academic seriousness, we assert that no further research in this area is needed.