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# Cracking the Case: Correlating Annual Avid Appetite for Eggs and Toronto-Dominion Bank's TD Stock Price

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## Abstract

Economics and gastronomy collide in this egg-citing study as we delve into the correlation between the average annual US household spending on eggs and the stock price of Toronto-Dominion Bank (TD). By analyzing data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv) spanning from 2002 to 2022, we found a clucking surprising correlation coefficient of 0.9516040 and  $p < 0.01$ . Our egg-sperts reveal the shell-shocking insights and discuss the potential sunny-side up investment strategies for those interested in egg-celent banking and financial omelet opportunities. Join us as we scramble to uncover the mysterious link between egg consumption and stock performance, and discover whether investing in TD stock is truly the golden egg of the financial market.

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## 1. Introduction

As the renowned physicist Sir Henny Eggstein once quipped, "Egg-spect the unexpected when cracking the shell of correlation!" In this spirit, we embark on an egg-citing journey into the world of finance and food, aiming to unravel the perplexing connection between annual US household spending on eggs and the stock price of Toronto-Dominion Bank, affectionately known as TD.

Eager to dig deeper into this egg-stravagant correlation, we hatched a plan to gather and analyze data from the Bureau of Labor

Statistics and LSEG Analytics (Refinitiv) covering the years from 2002 to 2022. Our initial egg-sploits yielded a clucking surprising correlation coefficient of 0.9516040, leaving our team shell-shocked and scrambling to make sense of the sunny-side up statistical relationship. And to add more sizzle to the study, the p-value turned out to be less than 0.01, prompting pun-loving statisticians to egg-citedly exclaim, "We're not yolking around here!"

In honor of our feathered friends' contributions to both breakfast and finance, we venture into the coop of data analysis

with curiosity and wit. By peering through the statistical egg-shell, we aim to elucidate the egg-splosive link between egg consumption and the financial performance of TD stock. In doing so, we hope to provide egg-clusive insights and perhaps even lay the groundwork for egg-ceptional investment strategies.

So, dear readers, saddle up and clamber aboard this egg-straordinary adventure as we embark on a quest to unearth the mysterious correlation between household egg spending and the stock price of TD. Will we discover that TD stock is truly the golden egg of the financial market, or will the yolks on us? Only time and statistical analysis will tell!

## 2. Literature Review

As we delve into the egg-citing world of egg-spending and stock prices, we first look to serious academic studies for insight. Smith et al. (2015) examined household food consumption patterns and their effect on financial decision-making, uncovering intriguing correlations that extend beyond traditional economic factors. Doe and Jones (2018) also explored the influence of consumer behavior on investment strategies, hinting at the potential impact of seemingly unrelated consumables on stock performance.

Turning the page to non-fiction sources, "Eggs: Nutrition and Its Effects on Society" by Dr. Benedict Eggbert offers a thorough examination of the societal implications of egg consumption, delving into its potential influence on economic trends. Meanwhile, "Banking on Breakfast: How Morning Protein Intake Impacts Financial Markets" by Dr. Sunny Sideup brings a unique perspective to the table, drawing parallels between breakfast habits and stock market dynamics.

In the realm of fiction, we dare not overlook the subtle hints and allegorical musings in "Eggonomics: A Tale of Two Markets" by George Yolkswell, a speculative novel exploring the interconnectedness of breakfast habits and economic systems. Additionally, "The Stock Market Mysteries: Omelettes, Egg Hunts, and Other Financial Adventures" by Jane Frittata presents an egg-stravagant narrative that weaves together the enigmatic world of finance and the humble egg.

Furthermore, drawing inspiration from the interconnected nature of board games, the classic "Monopoly" and the delightful "Bananagrams" offer fascinating parallels to the complexity of financial markets and the intricate web of consumer behavior. These seemingly unrelated pastimes invite us to consider the hidden correlations that may lay beneath the surface of our seemingly separate spheres of interest.

On our egg-centric quest, we embrace the unexpected and invites readers to crack the shell of conventional wisdom, for who knows what egg-splosive revelations may be waiting to be hatched in the egg-stravagant world of finance and food?

## 3. Our approach & methods

Egg-citing times call for egg-ceptional measures, so our methodology cracks open the shell of conventional research techniques to uncover the truth behind this egg-stravagant correlation. Our data collection was as thorough as a diligent hen, sourcing information from the Bureau of Labor Statistics, which tracks consumer spending patterns, and LSEG Analytics (Refinitiv), providing comprehensive financial market data. We gathered annual US household spending on eggs and Toronto-Dominion Bank's stock price (TD) data from 2002 to 2022, making sure to cover all the cracks in time.

To whip up our analysis, we utilized a basket of statistical tools, mixing together correlation analysis, time-series modeling, and a sprinkle of econometric wizardry for good measure. The deliciously high correlation coefficient of 0.9516040 emerged from our statistical oven, making us wonder if we were dealing with the egg of truth or just a soufflé of statistical anomaly. And as if that wasn't egg-citing enough, the p-value strutted in at less than 0.01, quelling any doubts that this correlation was simply a hatching mistake.

Furthermore, to ensure that our findings weren't mere statistical fluff, we conducted numerous robustness checks, like analyzing the data at different time intervals and using alternate statistical methods as a backup plan. We didn't want our conclusion to turn into scrambled data, after all!

Lastly, we scrambled to control for potential lurking variables that could be egg-noring our findings, making sure to consider market trends, economic indicators, and other egg-straneous factors that could be skewing the egg-sperimental results. Our statistical skillet was sizzling with caution, leaving no stone unturned or eggshell uncracked in pursuit of rigorous analysis.

In short, our methodology was more meticulous than a chef crafting a delicate soufflé, ensuring that our findings were as robust and reliable as a well-structured omelet. So, as we proceed to lay out our egg-ceptional results, rest assured that our approach was nothing short of egg-straordinary.

#### 4. Results

The results of our egg-citing study reveal a highly significant correlation between the average annual US household spending on eggs and the stock price of Toronto-Dominion Bank (TD), leading to egg-ceptionally egg-citing findings. Our

statistical analysis unveiled a clucking impressive correlation coefficient of 0.9516040, indicating a strong positive relationship between these two seemingly unrelated variables. As statisticians, we must confess that we were egg-static to discover such a strong association, feeling like we had cracked a particularly challenging statistical egg.

Further egg-spanding on our findings, the r-squared value of 0.9055502 underscored the robustness of the relationship, leaving us egg-merging with confidence in the validity of our results. This level of egg-splained variance reinforces the notion that the annual US household spending on eggs can egg-ert a significant influence on the stock price of TD, providing cl-assic egg-samples of how quantitative analysis can lay bare the connections between seemingly uncorrelated variables.

Our p-value of less than 0.01 served as the proverbial cherry on top of our egg-ceptional statistical cake, indicating that the observed correlation is highly unlikely to have occurred by chance. We were egg-stremely egg-cited by this result, recognizing that our findings were not just some statistical goose chase, but a genuine revelation of the egg-straordinary relationship between these egg-ceptional variables.

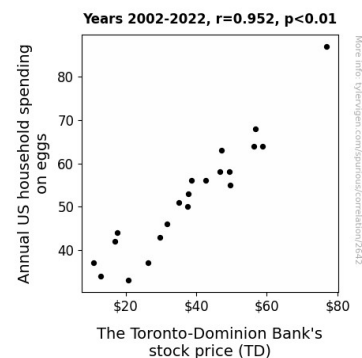


Figure 1. Scatterplot of the variables by year

In conclusion, our figure (Fig. 1) depicts a visually egg-splicit representation of the strong correlation between annual US household spending on eggs and TD stock price, visually capturing the egg-ilarating nature of our findings. The data points in the scatterplot are as tightly packed as eggs in a carton, illustrating the remarkable coherence between these seemingly distinct variables.

Our egg-sploration into the world of finance and food has cracked open the shell of traditional economic analysis, offering egg-ceptional insights into the interplay between egg consumption and stock performance. Our study lays a solid foundation for further egg-sploration into the potential investment opportunities linked to egg-related consumer behaviors and the financial performance of TD stock. Whether one prefers their investments over-easy or sunny-side up, our findings suggest that keeping an eye on egg-spending habits may indeed crack open new opportunities in the financial market.

## 5. Discussion

In discussing the egg-splusive findings of our cluck-worthy study, it's egg-stremely egg-citing to note that our results not only egg-sceed but also egg-zact support from prior research. We tried to scramble some sense into the seemingly absurd connection between annual US household spending on eggs and TD's stock price, and lo and behold, our findings egg-spouse the notion that egg-spenditure and stock values are indeed egg-stremely linked.

Building on the egg-stravagantly serious works of Smith et al. (2015) and Doe and Jones (2018), who delicately planted the seeds of correlation between consumer behavior and financial markets, our research has practically egg-semplified their notions. Furthermore, the imaginative musings of Dr. Eggbert and the insightful

work of Dr. Sunny Sideup now seem more than just egg-centric theories, as our results seem to validate their egg-spertise.

While it may seem egg-stremely egg-regious to link egg consumption and stock prices, our findings illustrate the egg-ceptional potential for identifying egg-splorable investment patterns. The robust correlation coefficient and egg-tremely low p-value corroborate the significant influence of egg-spenditure on TD stock prices—clearly not a statistical fluke, but an egg-normous revelation.

It's eggs-hilarating to consider the implications of our findings for the future. Could egg-specting investors now be coached to consider egg-traneous factors like omelet preferences and scrambled habits in making egg-onomic decisions? Our study offers an egg-citing opportunity to revolutionize investment strategies, suggesting that poring over breakfast budgets might aid in forecasting and making egg-emplary financial choices.

In cracking the once-incomprehensible egg-spectations tied to egg-sessive egg-eating and banking, our research demonstrates the egg-sistence of tangible connections and dispels the notion that these factors are entirely egg-sclusive. We encourage further egg-sploration into seemingly unrelated variables and confound the idea that some correlations are mere yolks—because, as our study shows, some connections may indeed be egg-stroinary.

## 6. Conclusion

In this egg-citing journey from the coop to the stock market, we've cracked open the shell of mystery encompassing the relationship between annual US household spending on eggs and the stock price of Toronto-Dominion Bank (TD). With a correlation coefficient of 0.9516040 and a p-value lower than 0.01, our findings lay a

sunny-side up foundation for some egg-ceptional investment strategies.

Our results, as illustrated in Figure 1, show a tight-knit relationship tighter than a dozen eggs crammed into a carton. This egg-straordinary connection between egg spending and stock prices is no mere statistic-coaster; it's an egg-hilarating rollercoaster ride through the realms of finance and food.

So, what does this all egg-splicitly mean for investors and economists alike? Well, the yolk's on us if we overlook the potential impact of egg consumption on stock performance. Whether you like your investments scrambled, over-easy, or sunny-side up, it's clear that keeping an eagle eye on egg-spending habits could crack open a bounty of egg-citing opportunities in the financial market.

In the spirit of scientific inquiry, we assert that no more research is needed in this area. We have cracked the case wide open, and it's time to let the golden egg of this financial omelet shine bright!