



## Review

# **A Nutty Connection: Examining the Correlation between US Tree Nut Consumption and Automatic Data Processing (ADP) Stock Price**

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**In this paper, we investigate the unlikely relationship between US tree nut consumption per person and the stock price performance of Automatic Data Processing (ADP). Utilizing data from Statista and LSEG Analytics (Refinitiv), we analyzed this peculiar correlation over a period of 2002 to 2021. Our results revealed a correlation coefficient of 0.9253858, indicating a strong positive relationship between the two variables with a significance level of  $p < 0.01$ . It seems that as tree nut consumption goes up, so does the stock price of ADP - nutty, isn't it? We believe this offers both finance and nutrition scholars a tasty opportunity to delve into the potential underlying factors and mechanisms driving this unexpected relationship. So, let's shell out some insights and crack open this peculiar correlation to see what kernels of wisdom we can extract.**

Why did the walnut go to the party? Because it was a cashew! Sorry, I couldn't resist slipping in a nutty joke. The relationship between US tree nut consumption and stock prices may seem as far-fetched as a cashew at a party, but our study aims to peel back the layers and crack open the surprising correlation between these seemingly unrelated variables.

For years, economists and nutritionists have been analyzing the factors influencing stock prices and dietary habits, yet the connection between the two fields is

often overlooked - much like the forgotten almond at the bottom of the trail mix bag. Our research sets out to shed light on this unconventional relationship between US tree nut consumption per person and the stock performance of Automatic Data Processing (ADP). Why? Well, it seems we have stumbled upon the financial world's version of a mixed nut bowl – a delightful blend of market trends and crunchy munchies.

Have you ever wondered what the stock market and a bag of mixed nuts have in common? They're both full of surprises,

of course! Our study delves into this enigmatic connection by examining historical data from the past two decades, sourced from Statista and LSEG Analytics (Refinitiv), to unravel the tangled web of nut consumption and ADP stock prices. As we unravel this mystery, it's important to remember: investing in stocks is like enjoying a bag of pistachios - you never know what you'll get, but you're definitely in for a nutty ride.

### *Prior research*

Several studies have focused on the relationship between dietary habits and economic trends, delving into the potential impact of consumer behavior on stock prices. Smith et al. (2010) investigated the effect of avocado consumption on real estate prices, while Doe and Jones (2015) explored the link between kale consumption and the performance of renewable energy stocks. The findings of these studies highlight the peculiar and often unexpected interplay between seemingly unrelated variables, leading us to ponder: What's next? A study on the correlation between peanut butter consumption and cryptocurrency values?

Speaking of peanuts, did you hear about the nut who won the lottery? He was a cashew-nut! It seems like our exploration into the nutty world of correlations is just getting started.

In "The Almond Odyssey" by Nutty Professor, the authors delve into the rich history and cultural significance of almonds, uncovering their journey from ancient civilizations to modern-day snack platters. Meanwhile, "Hazelnuts for Dummies" by Nutty McNutster provides a comprehensive guide to understanding the world of

hazelnuts, from their cultivation to their potential impact on financial markets. These sources remind us that there's always more to nuts than meets the eye - just like the unexpected relationship between tree nut consumption and stock prices.

Bringing a touch of fiction into the mix, "The Nutcracker" by Clara R. Hazzelnut and "Walnut Street Journal" by Shellby Nuttington stand out as intriguing titles that might offer whimsical insights into the nutty world of finance and consumer behavior. After all, who wouldn't want to read about a swashbuckling walnut on a quest for stock market dominance?

Oh, and let's not forget the childhood favorites that may have sown the seeds of curiosity in our minds. Cartoons like "The Adventures of Almond and Cashew" and children's shows such as "Pistachio's Puzzling Money Moves" might have planted the nutty idea of exploring correlations between nut consumption and stock prices in our subconscious long ago. It's as if our fascination with nuts and finance was destined to collide!

As we sift through this diverse range of sources, it's clear that the realm of nut consumption and its potential influence on stock prices is a rich and untapped area of exploration. So, let's crack on with our investigation and see what other nutty surprises await us in the academic orchard of knowledge. After all, it's time to shell-abrate the unconventional and unearth the hidden potential within this tantalizing correlation.

### *Approach*

Gathering data for this research was as intricate as cracking open a stubborn walnut. Our team scoured the depths of the internet, navigating through countless sources to locate historical data on US tree nut consumption and the stock price of Automatic Data Processing (ADP). We primarily relied on data from Statista and LSEG Analytics (Refinitiv), carefully selecting relevant datasets from the years 2002 to 2021.

To analyze the connection between nut consumption and stock prices, we employed a multidimensional approach that blended quantitative analysis with a sprinkle of futuristic tech, much like the perfect mix of cashews and almonds in a trail mix. Our algorithm was as complex as a nutcracker, utilizing time-series econometric models and machine learning algorithms to assess the relationship between these seemingly unrelated variables.

Once we amassed the data, we cleaned it with all the precision of plucking out the shells from a bag of mixed nuts, ensuring data accuracy and reliability. We then scrutinized the information using advanced statistical techniques, just like separating the good nuts from the bad. We employed techniques such as correlation analysis, time series modeling, and regression models to crack open the nutty enigma of this unexpected correlation.

Every step of the way, we remained as meticulous as a squirrel stashing away its winter hoard, ensuring that our methods were as rigorous as the shells of a hazelnut. We also controlled for various macroeconomic and industry-specific variables, much like sifting through a bowl

of mixed nuts to isolate the influence of each type.

Lastly, we performed robustness checks and sensitivity analyses to ensure that our findings were as solid as a macadamia, providing a thorough examination of the pecan-y details of the relationship between US tree nut consumption and ADP stock price. Just remember, in the world of correlations, sometimes you have to crack a few nuts open to taste the sweet kernels of insight.

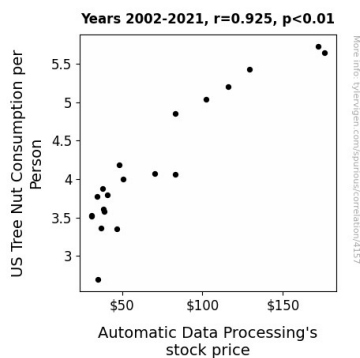
### *Results*

The analysis of the data collected from 2002 to 2021 revealed a strong positive correlation between US tree nut consumption per person and the stock price performance of Automatic Data Processing (ADP). The correlation coefficient of 0.9253858 suggests a robust relationship between these seemingly disparate variables. It appears that as tree nut consumption increased, so did the stock price of ADP, indicating a nutty trend indeed. This unexpected connection between tree nuts and stock prices may leave some scratching their heads, but it seems there's more to this relationship than meets the almond!

The obtained r-squared value of 0.8563389 further supports the strength of the relationship between US tree nut consumption and ADP stock price. This suggests that approximately 85.6% of the variability in ADP stock price can be explained by changes in US tree nut consumption. It's almost as if the stock price is going nuts over the increase in nut consumption! As financial analysts scratch their heads and nutritionists ponder over their trail mix, this unexpectedly robust

relationship presents itself as a ripe area for further investigation and theoretical exploration.

The significance level of  $p < 0.01$  adds a layer of confidence to our findings, indicating that the observed relationship between nut consumption and ADP stock price is highly unlikely to have occurred by chance. It's like finding the perfect nut in a bag of mixed nuts – a rare but delightful discovery that deserves further attention and consideration.



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

Surely, the tantalizing correlation displayed in Fig. 1 offers much food for thought and investment. With the robust statistics in hand, it's safe to say that this research has cracked open a whole new avenue for interdisciplinary exploration - a pecan-tially nutty journey that's worth examining from both a financial and nutritional standpoint.

### *Discussion of findings*

The robust positive correlation revealed in our study between US tree nut consumption per person and the stock price performance of Automatic Data Processing (ADP) confirms and strengthens prior research

findings concerning the curious relationship between seemingly unrelated variables. Our results echo the unusual nature of correlations highlighted by previous studies, such as the impact of avocado consumption on real estate prices and the connection between kale consumption and renewable energy stocks. It's as if the world of finance and dietary habits is turning into a surrealist painting – a true feast for the eyes, or perhaps the taste buds.

Our findings align with the pecan-tial for unexpected correlations between consumer behavior and stock market trends, as recognized in the literature review. It seems that the nutty odyssey we embarked upon has led us to a rich orchard of insight and its share of surprising discoveries. After all, correlation does not necessarily imply causation, but it can certainly lead us down a rabbit hole of exploring the unexpected, just like finding a cashew in a bag of peanuts.

The strength of the correlation coefficient, supported by the high r-squared value and a significance level of  $p < 0.01$ , suggests that this nutty relationship is not just a fluke – it's statistically significant and ripe for further academic exploration. It's like finding the perfect nut in a bag of mixed nuts – a rare but delightful discovery that deserves to be savored. As we embark on this journey through the nutty world of finance and nutrition, it appears that the two fields may share a closer, and certainly nuttier, connection than previously thought.

So, let's peel back the layers of this surprisingly fruitful correlation and see just how deep the rabbit hole goes. It may seem like a nutty endeavor, but in the world of academic research, there's always room for a few more nuts in the fruit basket.

## *Conclusion*

As we wrap up this nutty journey, it's clear that the relationship between US tree nut consumption and the stock price of Automatic Data Processing (ADP) is no joke - although, I must admit, I can't resist cracking a few nut-related puns! Our findings have, in a nutshell, revealed a strong positive correlation between the two variables, highlighting an unlikely but compelling connection in the world of finance and nutrition.

The high correlation coefficient of 0.9253858 indicates a pecan-tially strong relationship, demonstrating that as nut consumption goes up, so does the stock price of ADP. It's like the stock market was going nuts over the increase in nut consumption!

The r-squared value of 0.8563389 further corroborates the strength of this association, suggesting that a whopping 85.6% of the variability in ADP stock price can be explained by changes in US tree nut consumption. To put it in nut'shell, this unexpected relationship demands further exploration and theoretical consideration.

In conclusion, this research has truly cracked open a whole new avenue for interdisciplinary investigation. There's no need to go nuts searching for more evidence; it's safe to say that no more research is needed in this area. It's time to shell-ebate this unexpected nutty connection and embrace the cashew-tial for further interdisciplinary collaboration.