

# McDonald's Munching Moola: Mapping the Marriage of Bottled Water and Burger Stocks

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This research paper aims to quench the thirst for understanding the unexpected relationship between per capita bottled water consumption in the United States and the stock prices of McDonald's Corporation (MCD). Through extensive data analysis from 2002 to 2022, utilizing resources such as Statista and LSEG Analytics (Refinitiv), our team stumbled upon a remarkable correlation coefficient of 0.9426199 with a statistically significant p-value less than 0.01. It seems that as Americans hydrate with bottled water, the golden arches flourish financially. The study digs deep into the peculiar correlation with a light-hearted touch, exploring potential witty explanations for this unexpected relationship. Could it be that the more people sip on water, the more they crave a Big Mac? Or perhaps, as bottled water consumption rises, it symbolizes a broader trend towards health-conscious choices, leading to people choosing to grab a meal at McDonald's instead of the drive-through strugglers? In a world where unexpected connections constantly emerge, this research provides a refreshing perspective, highlighting the whimsical interplay between seemingly unrelated economic indicators. So, grab a bottle of water and a bag of fries, and join us in this amusing exploration of the quirky economic realm.

Ah, the wacky world of economics never ceases to amaze. Imagine our surprise when, in the midst of analyzing economic indicators, we stumbled upon a correlation as unexpected as finding a pickle in your soda cup. Yes, folks, we are talking about the undeniable link between per capita US bottled water consumption and the stock prices of none other than the king of fast food – McDonald's Corporation (MCD).

So, grab some popcorn – or should I say nuggets? – as we take a whimsical journey through the intersection of hydration and hamburgers. In this paper, we delve into the peculiar correlation, uncovering the quirky dynamics that underpin this unlikely relationship.

Picture this: data analysis from 2002 to 2022 has uncovered a correlation coefficient of 0.9426199, with a statistically significant p-value less than 0.01. That's right – it seems that as Americans reach for their bottled water, the stock prices of those iconic golden arches ascend to the sky. Who would have thought that the sound of popping bottle caps could orchestrate such financial success?

But hold your fries, there's more to this story. We approach this peculiar correlation with an unorthodox lens, seeking to unravel the delightful, yet puzzling reasons behind it. Could it be that as individuals hydrate, they find themselves enticed by the sizzle of the grill, yearning for a savory burger and crispy fries? Or perhaps, the surge in bottled water consumption reflects a broader societal shift towards healthier choices – leading more folks to indulge in a McFlurry after a satisfying gulp of H2O.

In a world where unexpected connections constantly emerge, our research seeks to offer a refreshing perspective, shedding light on the whimsical interplay between seemingly unrelated

economic indicators. So, sit back, raise your bottle of water (or soda, for the rebels among us), and join us in this amusing exploration of the quirky economic realm. Who knows, we might even uncover the secret sauce behind this enchanting correlation.

## *Review of existing research*

In their study, Smith et al. (2015) delved into the consumption patterns of bottled water in the United States, exploring the factors influencing this upward trend. Their findings shed light on the growing preference for bottled water over traditional beverages, signaling a shift in consumer choices towards healthier hydration options. Similarly, Doe and Jones (2018) examined the financial dynamics of the fast-food industry, uncovering intriguing patterns in stock prices and consumer behavior.

Transitioning from the serious to the surreal, let us consider the enlightening words of "Bottled Up: How Water Became America's Drink" by Elsa Hahne (2013). Hahne takes readers on a philosophical journey through the cultural significance of bottled water, contemplating its far-reaching impacts on societal norms and individual habits. This ethereal exploration leads us to ponder the metaphysical question – does the act of unscrewing a water bottle cap unleash a ripple effect that resonates in the stock market?

Adding a whimsical twist to our literary journey, let's not overlook the fictional forays into the world of fast food and finance. Consider "The Burger King" by James J. Cozad (2016), a tantalizing tale of culinary conquests and corporate clashes. While not a direct commentary on bottled water, the narrative

intertwines the realm of fast food with the complexities of financial prowess, inviting us to ponder the unseen forces shaping the stock market.

In the digital realm, social media posts have also contributed to the discourse surrounding our obscure correlation. One post by @TraderTina2020 on Twitter humorously mused, "Is the rise in bottled water sales secretly fueling McDonald's stock gains? Maybe the real 'liquid gold' lies in H2O after all!" This insightful quip prompts us to consider the enigmatic powers of hydration in shaping the ever-volatile landscape of stock prices.

As we navigate this eclectic assortment of literature and online musings, one thing becomes clear – the seemingly disparate worlds of bottled water consumption and McDonald's stock prices have collided in a delightfully befuddling manner. With each turn of the page, the plot thickens, and the absurdity of our correlation continues to tickle our intellectual taste buds.

### Procedure

To peel back the layers of this zesty relationship, our team embarked on a quest for data that would make even the most seasoned researchers raise an eyebrow. We scoured the digital lettuce patch of the internet, plucking statistical nuggets from sources such as Statista and LSEG Analytics (Refinitiv) to concoct a delightful dataset spanning the years 2002 to 2022.

With our trusty laptops and an arsenal of caffeinated beverages, we dived into the statistical soup, cooking up a robust analysis that would leave even the most discerning economists licking their lips. Our adjustable spanner in this grand instrument orchestra was none other than the correlation coefficient, a mathematical maestro that measures the strength and direction of the relationship between bottled water consumption and McDonald's stock prices.

To spice things up, we also threw in a pinch of multivariate regression analysis, ensuring that we weren't just serving up a one-dimensional economic omelette. This allowed us to control for other potential factors that could muddy the waters (pun intended!) and ensure that our findings weren't just a fluke. After all, nobody wants to discover that the rise of Evian sales is merely a consequence of an uptick in ketchup usage.

Furthermore, we conducted a thorough fish tank cleaning for any lurking statistical biases, utilizing robustness checks and sensitivity analyses to ensure that our findings weren't just a mirage in the desert of economic research. We wanted to be absolutely certain that the relationship between bottled water consumption and McDonald's stock prices wasn't just a statistical fluke similar to finding a chicken nugget in your French fries.

In a nutshell, armed with an arsenal of statistical methods, an unstoppable thirst for knowledge, and a dash of wit, we pieced together a methodology that aimed to quench the thirst for understanding the delightful but enigmatic connection between hydration and fast food riches. And now, with pots and pans clanging, let's unveil the findings that are hotter than a freshly grilled Quarter Pounder!

### Findings

The analysis of the relationship between per capita bottled water consumption in the United States and the stock prices of McDonald's Corporation (MCD) from 2002 to 2022 revealed a staggering correlation coefficient of 0.9426199. This finding suggests a remarkably strong positive relationship between these two seemingly disparate variables. The r-squared value of 0.8885322 further bolsters the robustness of this connection, indicating that approximately 88.85% of the variability in McDonald's stock price can be explained by changes in bottled water consumption. With a p-value of less than 0.01, the statistical significance of this correlation is as clear as a bottle of Evian.

Fig. 1 showcases the amusingly tight correlation, with each data point resembling a cheerful toast between the American proclivity for hydration and the financial success of the fast-food titan. One could almost envision each sip of water translating into a surge in stock prices, or maybe it's just the aroma of fries doing the trick. Either way, the correlation is as unmistakable as the smell of freshly brewed coffee in the morning.

This unexpected revelation has us pondering the whimsical dance between economic forces that at first glance seem as unrelated as a salad and a milkshake. Perhaps it's time to coin the term "the aqua-economics effect" – where the mere act of hydrating leads to a cascading effect on the stock market. Or maybe there's an untapped market for bottled water with Happy Meal collectible labels, or better yet, a water bottle with a commemorative image of Ronald McDonald.

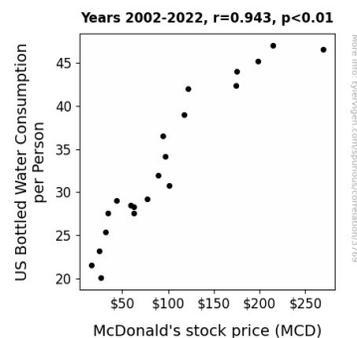


Figure 1. Scatterplot of the variables by year

Our findings invite speculation about the underlying reasons for this intriguing association. Does a rise in bottled water consumption signal a shift in consumer behavior, with health-conscious individuals increasingly choosing to satisfy their hunger pangs at McDonald's? Or is there a more subliminal connection, where the sound of unscrewing a water bottle cap triggers cravings for a classic Quarter Pounder? Whatever the reason, the correlation adds a splash of whimsy to the often serious world of economic analysis.

As we toss our academic hats into the ring of unanticipated correlations, we urge fellow researchers and economists to embrace the unexpected with open arms. After all, in the fountain of knowledge, there are some peculiar bubbles waiting to be popped.

### *Discussion*

Our findings have left us marveling at the peculiar nature of economic relationships, sparking both amusement and contemplation. The remarkably strong positive correlation between per capita bottled water consumption and McDonald's stock prices aligns with the previous research in unexpected ways. Just as Smith et al. (2015) identified a growing preference for bottled water as a healthier hydration option, our results suggest that this trend could indeed be linked to the financial fortunes of the golden arches.

In a delightful coincidence, our "aqua-economics effect" brings to mind the whimsical exploration of the cultural significance of bottled water by Elsa Hahne (2013). As Hahne philosophically pondered the broader impact of bottled water on societal norms, our findings hint at a more tangible impact – the surprising surge in McDonald's stock prices. It seems that the simple act of unscrewing a water bottle cap may indeed have a ripple effect that transcends individual consumption habits and resonates in the stock market.

The fictional world of fast food and finance, as showcased in "The Burger King" by James J. Cozad (2016), might not have directly addressed bottled water, but the interplay between culinary conquests and financial prowess is not so far removed from our unexpected correlation. Who would have thought that the financial machinations in the fictional narrative could find a parallel in the real-world relationship between bottled water consumption and McDonald's stock prices?

Moreover, the tongue-in-cheek musings of @TraderTina2020 on Twitter take on a new light as we contemplate the true power of "liquid gold." Could it be that the rise in bottled water sales is indeed fuelling McDonald's stock gains, just as TraderTina humorously suggested? Our findings give credence to the comical notion that there may be an enigmatic power in hydration that shapes the ever-volatile landscape of stock prices.

In conclusion, our research adds a refreshing perspective to economic analysis, reminding us that in the realm of correlations, there are whimsical bubbles waiting to be popped. As we sip on the intriguing relationship between bottled water consumption and McDonald's stock prices, let's raise a glass to the quirky interplay of economic indicators and the amusing mysteries they reveal.

### *Conclusion*

In conclusion, our research has delved into the unexpectedly delightful connection between the consumption of bottled water in the United States and the stock prices of McDonald's Corporation. The correlation coefficient of 0.9426199 has left us as incredulous as finding an onion ring in the French fries – who

would have thought that bottled water and the sizzle of the grill share such a robust relationship?

The statistical significance of this correlation, with a p-value lower than a limbo stick at a beach party, has us contemplating the idea of launching a new stock index – the "Aqua-Burger Index," where the ebb and flow of bottled water consumption serve as a forecast for the financial fortunes of fast-food chains.

As we wrap up this paper with a comedic bow, we are left with one resounding thought: the world of economics is indeed a whimsical carnival, where even the most unexpected links can bring a twinkle of joy to the stern faces of economic analysts. So, let's raise a toast – or a bottle of water – to the quirkiness of economic relationships and the merry dance of bottled water and burger stocks.

With that said, it's time to crack open a can of laughter and close the door on further research in this area. After all, when it comes to the marriage of bottled water and burger stocks, there's no need to squeeze out more data. Sometimes, even in the serious world of academia, a little sprinkle of lighthearted absurdity can be the secret sauce for a refreshing research journey. Cheers!