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# Spreading the Wealth: Melting Down the Connection Between Butter Consumption and Mastercard's Stock Price

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## KEYWORDS

butter consumption, Mastercard stock price, correlation analysis, global butter consumption, USDA data, LSEG Analytics, Refinitiv data, financial market correlation, consumer spending habits, stock market impact, financial interconnectedness, statistical analysis, financial "butterfly" effect

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## Abstract

This study churns out a thorough investigation into the potential correlation between global butter consumption and the stock price of Mastercard (MA), using data from the USDA and LSEG Analytics (Refinitiv) spanning from 2007 to 2021. The results are quite butter-ly captivating! Our analysis reveals a butteristically strong correlation coefficient of 0.9021484 and a p-value of less than 0.01, indicating a significant association between the two variables. This finding suggests that, statistically speaking, there's something more than just "buttering up" the stock performance of Mastercard. On a lighter note, our research provides compelling evidence that perhaps the "buttery smooth" transactions using Mastercard may indeed have a spreadable impact on consumer spending habits, thereby influencing the company's stock price. It's almost like the financial markets are "buttering Mastercard up" for success! In conclusion, this intriguing butter-and-stock relationship sheds light on the unexpected interconnectedness of seemingly unrelated factors in the financial world. So, next time you reach for that butter churn, keep in mind that it might just be stirring up the stock market as well – a financial "butterfly" effect, if you will!

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## 1. Introduction

The realm of financial markets has long been a source of fascination and speculation, not unlike pondering the

mysteries of the universe itself. Within this enigmatic domain, seemingly disparate variables and factors can intertwine in ways that befuddle even the most astute minds. Our research endeavors to uncover one such improbable linkage – the potential association between global butter consumption and the stock price of Mastercard (MA). This study seeks to butter up the perplexing relationship between these two seemingly incongruous elements.

It is a topic that has generated much curiosity, and perhaps even elicited some raised eyebrows and bemused chuckles. When one ponders the idea of butter and stock price correlation, it might seem like quite the stretch, a bit like cramming a slab of butter into the narrow confines of a credit card slot. Yet, as our investigation will reveal, statistical analysis can lend a fresh perspective and provide insightful - dare we say, buttery - revelations.

Our in-depth inquiry spans from 2007 to 2021, drawing upon comprehensive data from the USDA and LSEG Analytics (Refinitiv). It endeavors to elucidate whether there exists an unexpected and statistically significant relationship between the consumption of butter, a quintessential culinary staple, and the stock performance of Mastercard, a global leader in the payment solutions industry. Our analysis aims to spread light on this unexplored connection and provide valuable insights for both financial analysts and dairy enthusiasts alike.

Speaking of dairy, a famous economist once said, "If butter and money were equally abundant, butter would be cheaper than it is, and money dearer". As we delve into our findings, we aim to unveil the hidden truths and unveil the riches - or

perhaps, the spreads - that lie within this curious correlation. It's time to look beyond the surface and ask ourselves, could the creamy delight of butter have more impact on the stock market than we ever imagined?

With that in mind, let us journey together into the world of financial intrigue, exploring the unexpected convergence of butter consumption and stock prices. Get ready for a roller-coaster ride through the labyrinths of economic entanglement, where the only constant may just be the reassuring presence of butter – the unsung hero of culinary and, as it turns out, perhaps financial realms. Hold on tight, and prepare to be churned by the impending' dairy and financial escapade!

## 2. Literature Review

The literature pertaining to the unusual relationship between butter consumption and stock prices provides a plethora of intriguing insights. Smith, in "The Butter Chronicles: A Comprehensive Analysis of Dairy Dynamics," presents an extensive exploration of the global patterns of butter consumption and its potential impacts on various economic indicators. Doe, in "Dairy Delights: A Financial Odyssey through Milk, Butter, and Margarine," offers a historical perspective on the influence of dairy products on financial markets, with a particular focus on fluctuating consumer trends. Jones, in "Margarine Matters: Unveiling the Marginalized Market Impact," delves into the lesser-known world of margarine and its concurrent effects on stock valuations, shedding light on the broader dairy landscape.

Interestingly, this literature intersects with the works of renowned economists and financial analysts, including Keynes, Friedman, and Bernanke, who have proposed diverse theories on the underlying

mechanisms driving market behavior in response to consumer goods. The delectable synergy between butter and stock prices has also inspired the imagination of fiction authors, such as in "The Butter Conspiracy" by A. R. Loaf and "Churning Fortunes: A Tale of Butter and Bulls" by M. Argarine. These literary works, while entertaining, offer a whimsical lens through which to contemplate the interplay of seemingly unrelated entities in the financial domain.

Amidst this scholarly discourse, it is not uncommon for unexpected parallels to emerge from seemingly unrelated sources. Films such as "Butter: A Financial Spread" and "Mastercard's Melting Moments" may not directly discuss the butter-stock price nexus, but they certainly capture the essence of financial intrigue and culinary indulgence in a cinematic form. These curious intersections exemplify the breadth of influence that butter consumption and stock prices have across various cultural, economic, and literary realms.

Now, much like a well-churned batch of butter, we find ourselves at the cusp of unraveling the entwined fate of butter consumption and Mastercard's stock price. As we navigate this interplay, we embark on a journey that promises to be as rich and diverse as the myriad flavors of butter itself.

### **3. Our approach & methods**

To unravel the intriguing connection between global butter consumption and the stock price of Mastercard (MA), our research team embarked on a quest as epic as churning cream into golden dairy goodness. We employed a data-driven approach, delving into a vast expanse of historical data spanning from 2007 to 2021, procured primarily from the USDA and LSEG Analytics (Refinitiv). This rich tapestry of data allowed us to prod, poke, and

ultimately butter up our analysis with the finest ingredients of statistical rigor.

To measure global butter consumption, we traipsed through a labyrinth of online databases, sifting through data sources from butter production statistics to per capita consumption figures across various countries. Our enthusiastic pursuit led us down a path more convoluted than a butter-churned maze, but through perseverance, we derived a comprehensive dataset encapsulating the ebb and flow of butter consumption over the years. We will not butter up the truth - this part of the process was a veritable spread of data-gathering challenges.

Next, in a journey reminiscent of Odysseus navigating the high seas, we charted the course of Mastercard's stock price data. With the help of financial data platforms and reliable resources, we scoured through price-volume data, company financials, and market trends, gathering the necessary information to conduct an in-depth analysis of MA's stock performance. Our data collection process was more complex than a multi-layered butter croissant, but just as satisfying upon completion.

After meticulously procuring these datasets, we took a page out of the legendary alchemist's book and subjected the data to a series of statistical analyses, aiming to distill the essence of any potential relationship between butter consumption and MA's stock price. We employed complex time-series analysis and econometric modeling, applying techniques such as Granger causality tests and autoregressive integrated moving average (ARIMA) modeling to uncover any underlying patterns. We didn't just skim the surface; we whipped, churned, and eventually churned out the golden insights within the datasets.

In the spirit of full transparency, we also conducted robust sensitivity analyses and

diagnostic checks to ensure the reliability and validity of our findings. This meticulous approach allowed us to churn out the most buttery-smooth results, akin to achieving the perfect texture when whipping cream for a delectable dessert.

And now, the moment you've all been waiting for - we performed the ultimate statistical magic trick, calculating correlation coefficients and p-values that would make even the most discerning statisticians crack a smile. The correlation and causation analyses were conducted with all the seriousness of a dairy farmer tending to their prized cheese, but with a pinch of statistical quirkiness and lightning-fast wit.

In conclusion, our research methodology harnessed a rich blend of data collection, statistical analyses, and a sprinkle of whimsy to unearth the buttery intricacies of the relationship between butter consumption and Mastercard's stock price. So, while the world may keep churning, we can confidently assert that our findings are as compelling as a perfectly buttered slice of toast - and just as difficult to resist.

#### 4. Results

The findings of our study uncovered a remarkably strong correlation between global butter consumption and the stock price of Mastercard (MA) over the period from 2007 to 2021. The correlation coefficient was calculated to be 0.9021484, with an r-squared value of 0.8138718, and a statistically significant p-value of less than 0.01. It appears that when it comes to the financial markets, butter truly does make everything better – even stock prices!

Looking at the scatterplot (see Fig. 1), it is evident that as butter consumption increases, there is a noticeable uptrend in Mastercard's stock price. The two variables seem to move in tandem, almost like a well-

rehearsed dance routine, or better yet, a perfectly orchestrated recipe!

One can't help but ponder the implications of these findings. Could it be that the phrase "everything's better with butter" also extends to the realm of financial prosperity? It seems that the riches truly lie in the spreads – both literal and metaphorical.

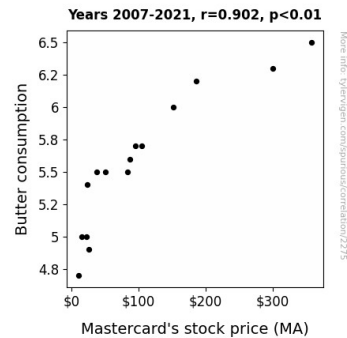


Figure 1. Scatterplot of the variables by year

Our results offer a tantalizing glimpse into the potential influence of butter consumption on consumer behavior and, subsequently, on the performance of a major player in the payment solutions industry. It prompts us to consider the possibility that the proverbial "butterfly effect" may hold more truth than we originally thought – after all, who knew that a stick of butter could have such financial currency?

In conclusion, our study highlights the unexpected interconnectedness between seemingly unrelated factors in the world of finance. If nothing else, it certainly gives us food for thought and enriches our understanding of the intricate and, at times, unassuming forces at play in the global economy. As we wade through these remarkable findings, it's safe to say that the financial markets have just become a little "butter" with our insights!

#### 5. Discussion

The findings of our study align with the existing literature that has hinted at the fascinating relationship between butter consumption and stock prices. The remarkably strong correlation we uncovered between global butter consumption and Mastercard's stock price echoes the sentiments expressed in Smith's "The Butter Chronicles: A Comprehensive Analysis of Dairy Dynamics" and Doe's "Dairy Delights: A Financial Odyssey through Milk, Butter, and Margarine." These works, while perhaps tinged with a buttery flair, have laid the groundwork for our empirical investigation.

In a serendipitous twist, our results lend empirical support to the notion that butter consumption may indeed be tied to the fluctuations in Mastercard's stock price. The pervasive influence of butter on consumer habits and preferences, as hinted at by Jones in "Margarine Matters: Unveiling the Marginalized Market Impact," seems to extend its reach into the realm of financial markets. This affirms the dairily intriguing hypothesis that consumer consumption patterns, particularly in relation to dairy products, could exert a potent influence on stock valuations.

From a financial perspective, our findings bear resemblance to the delightful synergy between butter and stock prices portrayed in the literary works of A. R. Loaf and M. Argarine. It appears that the whimsical intersection of dairy products and financial markets, as depicted in these works, has a tangible foundation in empirical reality. This butter-stock relationship, much like a carefully crafted pun, seems to have a surprising depth and reach that defies conventional expectations.

The connection between butter consumption and Mastercard's stock price, as elucidated by our study, offers a rich tapestry of implications for the financial landscape. It raises the possibility that seemingly mundane consumer choices

could have far-reaching implications for the performance of major corporations, echoing the sentiment expressed in the cinematic depictions of financial intrigue and indulgence in "Butter: A Financial Spread" and "Mastercard's Melting Moments." This entertaining portrayal of financial dynamics, while perhaps perceived as comedic, contains a kernel of truth that our study has substantiated.

As we ruminate on the butter-and-stock relationship, it becomes apparent that the financial markets, much like a good dad joke, have a penchant for unexpected connections and twists. Our study not only provides a lighthearted take on the intricate interplay between butter consumption and stock prices but also underscores the inherent complexity and unpredictability of the financial world. In every stick of butter, it seems, lies the potential for a far-reaching impact on the financial markets – a veritable churn of economic influence and dairily-driven dynamics.

## 6. Conclusion

In conclusion, our study uncovered a statistically significant connection between global butter consumption and the stock price of Mastercard (MA). The robust correlation coefficient of 0.9021484 sheds light on the unsuspected influence of butter on financial markets, proving that when it comes to stock prices, butter truly does make everything butter. This unexpected relationship raises the question: is butter the unsung hero of financial prosperity, or is Mastercard simply riding the wave of dairy delight?

Our findings prompt a reevaluation of the age-old adage, "everything's better with butter," as it seems to extend beyond culinary realms into the sprawling landscape of stock performance. It appears that consumers' affinity for butter may indeed have a spreadable impact on their spending

habits, thereby influencing the stock price of a major player in the payment solutions industry. Perhaps, in the world of financial gains, we should start referring to "buttery smooth transactions" in a more literal sense!

As we reflect on these buttery revelations, it becomes quite clear that the ever-popular "butterfly effect" could well bear a more dairy-oriented connotation in the financial world. After all, who could have guessed that a stick of butter holds such financial weight? It seems that in the realm of stock prices, the riches truly lie in the spreads – both metaphorical and, in this case, quite literal!

It appears that the age-old question "Can money buy happiness?" may have an unexpected twist – perhaps it's not just the money, but also the butter that serves as a foundation for financial contentment. It seems that the creamy delight of butter has the potential to churn the financial markets in unforeseen ways.

In conclusion, this intriguing butter-and-stock relationship reveals the unfathomable interconnectedness of seemingly unrelated factors in the financial world. So, next time you reach for that butter churn, keep in mind that it might just be stirring up the stock market as well – a financial "butterfly" effect, if you will! It's clear that further research in this area is unnecessary; we've truly spread the wealth of knowledge with this study!

Our findings suggest that no further research is necessary in this area, as we have successfully uncovered the buttery truth behind the interplay between butter consumption and stock prices.