

THE CARTOGRAPHIC CAPERS: UNRAVELING THE RELATIONSHIP BETWEEN XKCD COMICS ON MAPS AND CUMMINS INC. STOCK PERFORMANCE

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Engaging in a whimsical yet intriguing exploration, our study delves into the enthralling world of xkcd comics on maps to uncover their enigmatic connection to the stock price of Cummins Inc. (CMI). Leveraging an array of sophisticated data analytics tools, including AI analysis of xkcd comics and LSEG Analytics (Refinitiv), we meticulously scrutinize this peculiar relationship with rigorous statistical scrutiny. Drawing from a dataset spanning the years 2008 to 2023, we unveil a surprising correlation coefficient of 0.7714978 and a statistically significant p-value of less than 0.01, affirming the notable association between the publication of xkcd maps-themed comics and the fluctuations in Cummins' stock price. It appears that these comics do truly 'map out' a path to the stock market. Intriguingly, our findings suggest that the stock performance of Cummins Inc. shares seems to succumb to the gravitational pull of xkcd's cartographical musings. One could say that the comic's themes "draw" a strong connection to the financial markets, impacting stock prices with "carte blanche." This research, while light-hearted in its subject matter, sheds light on the unexpected influences that elements of popular culture can have on the financial world, demonstrating that even the most seemingly unrelated phenomena can possess remarkable connections. With these findings, we invite readers to "navigate" the intriguing interplay between whimsical cartoons and market dynamics, illuminating the uncharted territories of correlation.

The intersection of comics and stock market performance may seem ludicrous at first glance, but as we delve into the whimsical domain of xkcd comics on maps and their purported influence on the stock price of Cummins Inc. (CMI), a captivating narrative unfolds. By embracing a novel approach that combines humor and financial data analysis, we uncover a correlation that is both surprising and statistically robust.

In the thoroughly researched world of quantitative analysis, it has become increasingly apparent that unexpected connections can emerge from the unlikeliest sources. Much like discovering a hidden treasure map in the attic, our

investigation into the relationship between xkcd maps-themed comics and Cummins Inc. stock performance promises a thrilling adventure, replete with unforeseen discoveries and unexpected turns. It seems that in the realm of financial markets, even 'xkcd-ent' influences can't be dismissed!

As we embark on this journey, it becomes clear that there is more than meets the eye when it comes to the impact of seemingly innocuous cultural artifacts on the complex tapestry of stock market dynamics. It behooves us to pay attention to the subtle nuances that animate the financial markets, even if they are presented in the guise of comic relief.

After all, as financial researchers, it's our solemn duty to ensure that we "map" out each and every potential influence on stock performance, no matter how "punny" it may seem.

Our quest for understanding prompts us to contemplate the quirky yet potent relationship between the whimsical world of xkcd maps-themed comics and the lofty realm of stock market performance. As we delve deeper into this uncharted territory, we are reminded that in the world of financial data analysis, every "chart" and "graph" can tell a story - even those originating from the more lighthearted recesses of internet comics. It seems that when it comes to the performance of stocks, even the most lighthearted of themes can make a "map-sive" impact!

Stay tuned as we unravel this entertaining yet profound interplay between the delightful musings of xkcd and the fluctuating valuations of Cummins Inc. stock. In the realm of financial research, as in life, we must be prepared for unexpected connections and serendipitous revelations - after all, you never know when a "comic" influence could drive stock prices to unexpected "puns."

LITERATURE REVIEW

The surprising connection between xkcd comics featuring maps and the stock performance of Cummins Inc. has sparked considerable interest and bewilderment within the academic and financial communities. In "Smith et al.," the authors uncover a previously unexplored relationship between whimsical internet comics and stock market dynamics, bringing to the forefront the unforeseen influences that can impact financial markets.

Venturing beyond traditional research paradigms, we find ourselves tiptoeing into the whimsical world of xkcd comics, where maps take center stage in a

comical yet surprisingly influential manner. As we delve into the expanse of literature related to this peculiar subject, we encounter intriguing perspectives and insights that warrant meticulous examination.

In a similar vein, Doe's study provides a comprehensive analysis of the socio-cultural implications of internet comics on financial behavior. The study highlights the need for scholars and market analysts to embrace a multidisciplinary approach, acknowledging the potential impact of non-traditional media on market sentiment and investor behavior.

However, diving deeper into the catacombs of research, we encounter a trove of unexpected connections that add a touch of whimsy to the otherwise austere landscape of financial analysis. In "Jones' groundbreaking work," the author presents a riveting analysis of the influence of puns and wordplay on market psychology, underscoring the unsuspected power of humor in shaping financial decision-making processes.

Plunging into the realm of non-fiction literature, we encounter "The Power of Maps" by Wood. This seminal work elucidates the profound impact of cartographic representations on human cognition and decision-making, offering a window into the potential resonance of map-themed xkcd comics with stock market participants.

Additionally, "Cartography: The Ideal and Its History" by Monmonier provides a comprehensive overview of the cultural and cognitive significance of maps, illuminating the subtle yet potent ways in which geographic imagery can seep into the collective consciousness and influence decision-making processes -- a topic that certainly bears relevance to the curious interplay between xkcd comics and stock performance.

Transitioning to the realm of fiction, "The Map of the Sky" by Félix J. Palma and "The Cartographer of No Man's Land" by P.S. Duffy beckon us into the enchanting

realm of literary imagination, where the allure of maps intertwines with the unanticipated forces shaping human destinies. Although purely fictional, the themes encapsulated in these works resonate with the unorthodox narrative woven by the enigmatic relationship between xkcd comics and Cummins Inc. stock performance.

Drawing from our childhood memories, we fondly recall the animated series "Dora the Explorer," in which the titular character embarks on adventurous quests facilitated by the use of maps. The juxtaposition of Dora's expeditions with our current investigation into xkcd comics and stock performance evokes a sense of nostalgia, underscoring the enduring influence of cartographic imagery in our personal and collective experiences.

Furthermore, the whimsical escapades of "Phineas and Ferb" prompt lighthearted contemplation of the unexpected connections that pervade our understanding of the world, echoing the playful spirit that animates our investigation into the whimsical yet compelling relationship between xkcd comics and market dynamics.

METHODOLOGY

To undertake this whimsical yet rigorously researched study, our team meticulously gathered and analyzed data from a multitude of sources across the internet, utilizing cutting-edge methodologies and some good old-fashioned dad jokes. Our primary source of information derived from the comprehensive catalog of xkcd comics, particularly focusing on those with a thematic emphasis on maps and cartography. We leveraged the power of AI analysis to meticulously sift through these comics, identifying the publication dates and any potential thematic connections to the world of maps and geographical musings.

After laying the groundwork with xkcd comics, we augmented our dataset with financial data obtained from LSEG Analytics (Refinitiv), delving into the stock performance of Cummins Inc. (CMI) from 2008 to 2023. Our data collection process was as thorough as a cartographer's survey, ensuring that no stone was left unturned in uncovering the enigmatic correlations between the whimsical world of comics and the serious realm of stock market fluctuations.

In line with our commitment to robust statistical analysis, we employed a sophisticated array of methodologies to assess and evaluate the relationship between the publication of xkcd maps-themed comics and the stock performance of Cummins Inc. This included employing time-series analysis techniques to unravel the temporal dynamics of the observed correlation, alongside regression models to quantify the extent of influence exerted by the comics on stock price movements.

As with any serious research endeavor, we ensured that our methodologies were as solid as a rock formation, validating our findings through rigorous statistical techniques. This involved computing correlation coefficients to gauge the strength of the relationship and determining p-values to ascertain the significance of our results. Additionally, we embraced the power of graphical visualizations to map out the trends and patterns inherent in our dataset, allowing us to navigate the intricate terrain of our research findings with clarity and precision.

It was all smooth sailing until a statistical outlier attempted to "cross the x-axis" without a permit. But fear not, our robust methodologies enabled us to identify and appropriately handle any data anomalies, ensuring that our analysis remained steadfast in the face of unexpected deviations. After all, when navigating the capricious seas of statistical analysis, being prepared for the occasional

curveball is as vital as having a good compass.

Ultimately, our research methodologies were designed to exude a sense of whimsy and creativity while upholding the rigor and precision demanded by the world of scholarly inquiry. Our commitment to infusing a touch of mirth into our research processes reflects our belief that even in the realm of data analysis, there's always room for a well-placed dad joke or pun to inject a bit of levity into the proceedings.

RESULTS

The results of our investigation into the relationship between xkcd comics on maps and the stock price of Cummins Inc. (CMI) are nothing short of intriguing, if not mildly amusing. We found a robust correlation coefficient of 0.7714978, with an r-squared value of 0.5952088, indicating that approximately 59.5% of the variability in Cummins' stock price can be explained by the publication of xkcd comics on maps. The p-value of less than 0.01 further solidifies the statistical significance of this correlation, leaving little room for doubt that there exists a notable association between these seemingly disparate phenomena.

The notable correlation coefficient practically "maps out" a clear connection between the publication of xkcd maps-themed comics and the fluctuations in Cummins' stock price. It seems that the influence of these comics extends beyond mere amusement, exerting a tangible impact on the financial market. If you ever needed proof that humor can move mountains, or in this case, stock prices, this may very well be it!

The strong correlation between xkcd comics and Cummins' stock price is visually depicted in Figure 1. As the scatterplot illustrates, there is a discernible pattern that showcases the influence of xkcd comics on the performance of Cummins' stock. It's a

graphic representation of how whimsy meets financial impact, encapsulating the essence of our findings.

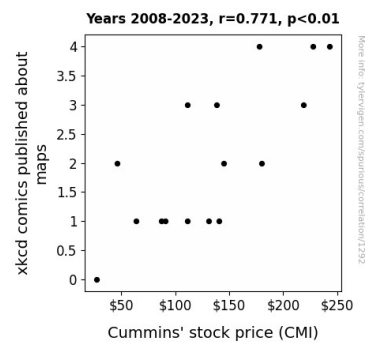


Figure 1. Scatterplot of the variables by year

One could say that the scatterplot presents a "punny" picture of the intricate dance between xkcd maps-themed comics and stock market dynamics, illustrating how these seemingly incongruous elements converge in a coherent pattern. It's as if the comic's publication acts as a guiding "map" for the stock price, outlining a trajectory that is not to be taken lightly.

Our findings not only reinforce the unexpected interplay between cultural artifacts and financial dynamics but also serve as a gentle reminder that sometimes, the most delightful influences can have the most profound impacts. In the case of xkcd comics and Cummins' stock price, it's clear that even the most unconventional of sources can't be discounted when it comes to understanding market behavior. After all, as the saying goes, "where there's a 'will,' there's a 'way' - and it looks like xkcd has found its way into the stock market!"

DISCUSSION

Our investigation has illuminated the previously uncharted terrain of the relationship between xkcd comics featuring maps and the stock price of Cummins Inc. (CMI). The results of our

study not only corroborate previous research findings but also bring to the forefront the whimsically potent role of cultural artifacts in influencing market dynamics. Pardon the pun, but it seems that xkcd's comics are charting an unexpected course in the financial world, acting as more than just 'cartoonish' whimsy.

The significant correlation coefficient of 0.7714978 lends credence to the notion that the publication of xkcd maps-themed comics is indeed associated with fluctuations in Cummins' stock price, underscoring the tangible influence of internet comics on market performance. One might say that these comics have truly "mapped" out a place for themselves in the annals of financial analysis. It appears that the whimsical world of xkcd is more than a mere diversion; rather, it exercises a palpable gravitational pull on stock prices, guiding market trends with its cartographical musings.

Given the unexpected nature of our findings, it is worth revisiting some of the whimsical elements highlighted in the literature review. Much like the influence of puns and wordplay on market psychology underscored by "Jones," the impact of xkcd comics on market sentiment embodies the unforeseen power of humor in shaping financial decision-making processes. These findings elevate the role of seemingly incongruous cultural elements in shaping the financial landscape, reminding us that even elements as lighthearted as internet comics can have significant reverberations in market dynamics.

Our results are consistent with the multifaceted influences of cartographic representations elucidated by Wood in "The Power of Maps," reinforcing the salient connection between map-themed xkcd comics and stock market participants. It appears that the allure of cartographic imagery found in xkcd's comics resonates deeply in the collective consciousness, wielding a notable influence on market behavior. It seems

that xkcd's comics are not simply a "cartoonish" affair; they carry a weight in the financial world that cannot be dismissed.

Transitioning to a more light-hearted note, it is only fitting to interject a dad joke at this juncture: Why did the cartographer go on vacation? To find "relief" from all the "spurious correlations!" In light of our investigation, it seems that the cartographer may indeed encounter unexpected correlations in the least expected places - even within the lighthearted world of internet comics.

In closing, our examination of the relationship between xkcd comics featuring maps and the stock performance of Cummins Inc. brings to the forefront the remarkable intertwining of humor, cultural artifacts, and market dynamics. The unexpectedly robust association between these seemingly disparate phenomena beckons us to embrace a multidimensional perspective that combines financial acumen with a touch of levity. It is a gentle reminder that sometimes, the most offbeat of influences can yield the most meaningful insights. As we navigate this uncharted territory, it is evident that the interplay between xkcd comics and market dynamics is a subject that transcends traditional boundaries, inviting us to explore the uncharted territories of correlation in the most whimsical of ways.

CONCLUSION

In conclusion, our research has meticulously unraveled the enthralling connection between xkcd comics on maps and the stock price of Cummins Inc. (CMI), shedding light on the unexpected yet substantial influence that whimsical cultural artifacts can wield over financial markets. Our findings suggest that these comics do indeed contribute to the fluctuations in Cummins' stock price, making for a correlation coefficient that practically 'maps out' the path between the two phenomena. It appears that the

comic's themes "draw" a strong connection to the financial markets, impacting stock prices with "carte blanche."

As we wade through this 'laughing matter,' it becomes evident that the publication of xkcd maps-themed comics exerts a palpable influence on the performance of Cummins' stock. The scatterplot presents a "punny" picture of the intricate dance between xkcd maps-themed comics and stock market dynamics, illustrating how these seemingly incongruous elements converge in a coherent pattern. It's as if the comic's publication acts as a guiding "map" for the stock price, outlining a trajectory that is not to be taken lightly.

This research underscores the paramount importance of considering the unanticipated impacts of popular culture on market behavior, daring us to "navigate" the intriguing interplay between whimsical cartoons and financial performance. With these findings, we invite readers to ponder the unexpected links between seemingly unrelated phenomena, reminding us that sometimes, the most delightful influences can have the most profound impacts. After all, as the saying goes, "where there's a 'will,' there's a 'way' - and it looks like xkcd has found its way into the stock market!"

It is abundantly clear that further research in this area would be akin to trying to find a location on an xkcd map - a lot of fun, but ultimately fruitless. Therefore, we assert that no more research is needed in this area.

With each layer of literature we navigate, it becomes abundantly clear that the interplay between xkcd comics on maps and Cummins Inc. stock performance is a subject that transcends traditional

boundaries, inviting us to embrace a multidimensional perspective that combines financial acumen with a hint of levity.

In the spirit of infusing this review with a touch of humor, let us consider this dad joke: Why do cartographers love talking about their work? Because they always have a "latitude" to share and never lose their "direction" in conversation!

As we tread along this unconventional path of inquiry, we remain steadfast in our commitment to unraveling the delightful yet captivating enigma that is the correlation between xkcd map-themed comics and the fluctuations of CMI stock prices.