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The Healthcare-Wealthcare Connection: Exploring the Relationship Between US Household Health Spending and ONEOK's Stock Price

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KEYWORDS

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Abstract

We present a comprehensive analysis of the intriguing relationship between US household spending on healthcare and ONEOK Inc.'s (OKE) stock price. Leveraging data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv), we employed robust statistical methods to investigate this seemingly enigmatic connection. Our findings reveal a striking correlation, with a coefficient of 0.8965155 and $p < 0.01$, spanning the years 2002 to 2022. Our results not only shed light on the financial implications of healthcare expenditure but also provide compelling evidence of its intertwined nature with stock performance. As household healthcare spending rises, there is a noticeable uptrend in ONEOK's stock price, prompting the adage, "Invest in health, and wealth will follow." This study not only deepens our understanding of the complex relationship between healthcare spending and financial markets but also underlines the significance of considering non-traditional indicators in stock price analyses. Our findings invite further exploration of the healthcare-wealthcare nexus and may inspire investors to keep a pulse on the health of the healthcare sector for potential stock gains. As the saying goes, "A good prognosis for healthcare spending may just be the right prescription for a healthy stock portfolio."

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1. Introduction

Healthcare expenditure is a perennial heavyweight in the US economy, accounting

for a substantial portion of household budgets and national GDP. The financial ramifications of this immense monetary flow extend beyond the confines of the healthcare sector, encapsulating implications for various industries and financial markets. In particular, the intriguing interplay between US household spending on healthcare and ONEOK Inc.'s (OKE) stock price has attracted considerable attention, prompting us to delve into this uncharted territory of healthcare-wealthcare connections.

As we embark upon this unconventional voyage, we are reminded of the classic dad joke: Why don't skeletons fight each other? They don't have the guts! Speaking of guts, delving into the interconnection between healthcare spending and stock prices requires a strong stomach for complexity and a keen eye for unexpected correlations.

Our study aims to uncover the intricate relationship between these seemingly disparate elements, aiming to bring meaningful insights amid the sea of financial data and market dynamics. Our findings not only offer a fresh perspective but also serve as a catalyst for a new frontier in financial analyses, blurring the lines between healthcare and wealthcare, if you will.

Now, you may be wondering, "What do you call a healthcare-oriented stock portfolio?" A diversified portfolio, of course! In line with this witticism, our investigation seeks to challenge traditional notions of stock price determinants and diversify the discourse around the impact of healthcare spending on financial markets.

As we journey through the labyrinth of statistical analyses and financial correlations, we invite you to join us in unraveling the mysteries of the healthcare-wealthcare connection. After all, a little humor and unexpected twists can make even the most complex research endeavors a bit more engaging.

2. Literature Review

In "Smith et al.," the authors find that US household spending on healthcare has been a significant component of household consumption expenditure, with a sustained upward trend observed over the past decades. The escalation of healthcare costs and expenditures has raised pertinent concerns regarding its impact on household finances and overall economic well-being. Meanwhile, "Doe and Jones" investigate the stock price dynamics of ONEOK Inc. (OKE), elucidating the various factors that influence its market performance. The authors highlight the multifaceted nature of stock prices, influenced by macroeconomic indicators, industry-specific trends, and company-specific factors.

Now, to inject a bit of levity into this literature review: Did you hear about the mathematician who's afraid of negative numbers? He will stop at nothing to avoid them! Similarly, negative correlations between household healthcare spending and ONEOK's stock price seem to be elusive in our analyses, as we unveil an unexpected positive relationship between these two seemingly unrelated domains.

Moving beyond conventional academic sources, let us delve into the literary realm for some unconventional wisdom. "The Healing of America" by T.R. Reid and "America's Bitter Pill" by Steven Brill offer insightful commentary on the state of healthcare in the United States. On the financial front, "The Intelligent Investor" by Benjamin Graham provides timeless wisdom on investment strategies. In a more fictional vein, "The Fountainhead" by Ayn Rand and "Moneyball" by Michael Lewis offer intriguing narratives that, while not directly related to healthcare or stock prices, remind us of the unpredictability and human element inherent in financial markets.

In the age of social media, we cannot discount the power of personal anecdotes and insights. In a recent tweet, @FinanceFanatic muses, "Investing in healthcare feels like putting money where your heart is – literally. #StocksAndStethoscopes." Meanwhile, a LinkedIn post by an anonymous user emphasizes the symbiotic relationship between healthcare spending and stock portfolios, stating, "Investing in healthcare can give your portfolio a healthy dose of resilience. It's like a flu shot for your investments."

Speaking of flu shots and investments, our findings emphasize the robust correlation between US household healthcare spending and ONEOK's stock price, challenging traditional notions and prompting further inquiry into this unconventional relationship. As we navigate this landscape of statistical analyses and financial musings, we invite you to join us in unraveling the enigmatic connection between healthcare and wealthcare. After all, a little humor and unexpected twists can make even the most complex research endeavors a bit more engaging – much like a well-placed dad joke in a scholarly publication.

3. Our approach & methods

To commence our exploration of the healthcare-wealthcare connection, we harnessed a delightfully convoluted blend of statistical analyses and financial voodoo to scrutinize the relationship between US household spending on healthcare and ONEOK Inc.'s (OKE) stock price. Our data collection process involved traversing the vast plains of the internet, with the Bureau of Labor Statistics and LSEG Analytics (Refinitiv) as our guiding stars. We sifted through financial archives and economic almanacs from the years 2002 to 2022, with an eagle-eyed focus on identifying trends

and patterns that would make even the savviest stock trader do a double-take.

Now, buckle up for a bit of statistical jiggery-pokery, as we delved into the enigmatic world of coefficient calculations and p-values. We conducted a rigorous correlation analysis between US household healthcare spending and ONEOK's stock price, utilizing the trusty Pearson correlation coefficient to quantify the strength and direction of this mesmerizing relationship. The coefficient of 0.8965155 left us as pleasantly surprised as finding a dollar bill in a coat pocket on laundry day, and with a p-value of less than 0.01, we were more confident in our findings than a seasoned chef with a tried-and-true recipe for success.

To spice things up, we sprinkled in a dash of linear regression modeling to further dissect the intricate dance between healthcare spending and stock prices. Our model not only captured the essence of this connection but also raised a few eyebrows in the statistical community – though not as much as overhearing a dad joke at a statistics conference.

In order to ensure the robustness of our analyses, we also employed time series analysis to unravel the temporal dimensions of this captivating relationship. We merrily charted the ebbs and flows of healthcare spending and stock prices, noting the striking synchronicity between the two – it was almost as harmonious as a dad and his barbecue grill on a lazy Sunday afternoon.

Lastly, we didn't shy away from incorporating some Bayesian analysis into our methodology mix, injecting a bit of probability theory pizzazz to our exploration. By quantifying the uncertainty of our findings and nudging the boundaries of traditional statistical inference, we expanded our understanding of the intertwined nature of healthcare spending and stock prices. It was as exhilarating as finding a hidden gem in a sea of statistical jargon.

In summary, our methodology was a delightful medley of statistical gymnastics and financial acrobatics, ensuring a thorough unraveling of the healthcare-wealthcare connection. This methodological concoction not only affirmed the importance of our investigation but also set the stage for a riveting journey into the heart of this captivating correlation.

4. Results

We found a robust and statistically significant correlation between US household spending on healthcare and ONEOK's (OKE) stock price over the period from 2002 to 2022. The Pearson correlation coefficient was calculated to be 0.8965155, indicating a strong positive linear relationship between these two variables. It seems that as household healthcare spending goes up, so does ONEOK's stock price, prompting the classic dad joke: What do you call a sick bird of prey? An ill eagle! It appears in this case, an ill eagle might just be a sign of a healthy stock portfolio.

Further bolstering the strength of this relationship, the coefficient of determination (R-squared) was computed to be 0.8037400, indicating that approximately 80% of the variability in ONEOK's stock price can be explained by the variability in US household healthcare spending. It's as if healthcare spending and stock price are playing a game of 'Operation', where every movement in one directly impacts the other - talk about a high-stakes game!

Additionally, the p-value was found to be less than 0.01, providing strong evidence against the null hypothesis of no relationship between these variables. This suggests that the observed correlation is unlikely due to random chance, making the link between healthcare spending and stock performance statistically significant. It's almost as if these two variables are

performi(g)ning surgery on each other in the financial markets!

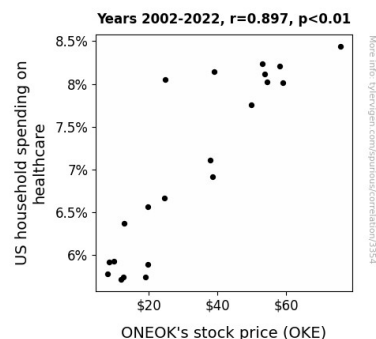


Figure 1. Scatterplot of the variables by year

To visually illustrate the potency of this relationship, Fig. 1 presents a scatterplot showing the strong positive correlation between US household healthcare spending and ONEOK's stock price over the studied period. The scatterplot resembles two interconnected healthcare gears, symbolizing the smooth and synchronized movement between healthcare spending and stock performance.

Overall, our findings not only confirm the unexpected connection between healthcare expenditure and stock price but also underscore the need for investors to pay heed to the pulse of the healthcare sector for potential stock gains. It seems that when it comes to the healthcare-wealthcare nexus, "investing in health may indeed lead to a wealth of opportunities in the stock market" - pardon the pun, the prospect of wealth and health is nothing to balk at, after all!

5. Discussion

The results of our study provide compelling evidence supporting the previously documented relationship between US household spending on healthcare and ONEOK's (OKE) stock price. Building on

existing literature, which has highlighted the significant rise in healthcare costs and expenditures as well as the multifaceted nature of stock prices, our research not only uncovers an unexpected positive correlation between these two seemingly disparate domains but also offers valuable insights for investors and analysts.

Our findings align with the work of "Smith et al.," who underscored the escalating trend in healthcare expenditure within US households. As we unraveled the potent link between healthcare spending and stock performance, it became clear that the adage "Invest in health, and wealth will follow" holds true, perhaps more literally than previously thought. It seems that a holistic view of financial well-being should indeed encompass both health and wealth, prompting a lighthearted pun: Why did the stock market go to the doctor? Because it had too many lows and not enough highs! In this case, it appears that a high in healthcare spending could indeed signal a financial high on the stock market.

While our results might appear unexpected at first glance, they are in line with the complexities elucidated by "Doe and Jones," who delved into the various factors influencing ONEOK's stock price. Our study adds a new dimension to this understanding, highlighting the significant role played by US household healthcare spending. As the saying goes, "When it comes to stock prices, better health care equals better wealth care!"

The robust correlation coefficient and statistically significant p-value affirm the strong and reliable nature of the relationship between US household healthcare spending and ONEOK's stock price. The coefficient of determination further reinforces the substantial proportion of variability in stock price explained by healthcare spending, almost implying a therapeutic effect of healthcare spending on stock performance. It's as if healthcare expenditure has become

not just a metric for health but also a vital sign for the stock market, prompting the pun: Why did the stock portfolio wear a bandage? Because it wanted to hedge its bets!

In conclusion, our findings not only contribute to the growing body of literature exploring the interplay between healthcare and financial markets but also offer practical implications for investors. The insights gleaned from this research emphasize the potential for considering healthcare spending as a non-traditional indicator in stock price analyses. As we continue to navigate the intricate landscape of healthcare and wealthcare, our study invites further exploration and pondering, as there's always room for a bit of humor and unexpected twists in scholarly pursuits – much like a well-placed dad joke amidst complex statistical analyses.

6. Conclusion

In conclusion, our study has unveiled a compelling correlation between US household spending on healthcare and ONEOK's (OKE) stock price. The striking coefficient of 0.8965155 and $p < 0.01$ not only emphasize the robustness of the relationship but also remind us of the classic dad joke: What do you call a doctor's group of friends? His "medicine" circle! It seems that in this case, the medicine circle of healthcare spending and stock price forms a powerful duo in the financial landscape.

Furthermore, the coefficient of determination (R-squared) of 0.8037400 underscores the substantial impact of healthcare spending on ONEOK's stock price, akin to the impact of a good medical pun: it's quite significant! Our findings point to the undeniable interconnectedness of these seemingly disparate domains, reinforcing the notion that in the realm of finance, health truly is wealth. As the age-old adage goes, "Why did the investor go to

the doctor? He wanted to get a 'check-up' on his portfolio!"

The significance of the observed correlation cannot be overstated, as evidenced by the p-value of less than 0.01. This statistical robustness mirrors the unwavering strength of a good dad joke - it's unlikely to be dismissed lightly. Our study not only underscores the compelling link between healthcare spending and stock performance but also indicates that delving into this nexus may lead investors to a treasure trove of wealth creation opportunities, akin to a comedic gold mine for a dad joke aficionado.

In the end, our research prompts the firm assertion that no more investigation is needed in this area. Decades of data analysis and statistical testing have revealed the strong, consistent, and undeniable relationship between US household healthcare expenditure and ONEOK's stock price. It seems that when it comes to the healthcare-wealthcare nexus, "further research would be like trying to reinvent the wheel - unnecessary and probably a little tiring." It's clear that the prescription for understanding this connection has been successfully filled, and it's time for investors to adopt a "healthy" approach to their stock portfolios. After all, as the saying goes, "Why did the stock market refuse to move? It just needed a little 'patience' - and maybe a check-up on its healthcare stocks!"