
The Planetary Peculiarity: Exploring the Orbital Oddity of Uranus and Saturn and its Impact on Baker Hughes Company's (BKR) Stock Price

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Abstract

The elusive relationship between celestial bodies and financial markets has long fascinated scholars and puzzled investors. In this study, we leverage data from Astropy and LSEG Analytics to investigate the seemingly inexplicable connection between the distance separating Uranus and Saturn and the stock price of Baker Hughes Company (BKR) from 2002 to 2023. Our findings reveal a correlation coefficient of 0.6592864 and a statistically significant p-value of less than 0.01, shedding light on this cosmic conundrum. While the astronomical community may dismiss this correlation as celestial serendipity, our results suggest that there may be more than meets the eye in the volatile interplay between the cosmos and capital markets. This study not only contributes to the burgeoning literature at the intersection of astrophysics and finance but also serves as a celestial reminder of the cosmic whimsy shaping our earthly endeavors.

1. Introduction

Introduction

The relationship between celestial phenomena and earthly affairs has long captivated the human imagination. While scientists and investors may seem worlds apart in their pursuits, the curious intertwining of Uranus and Saturn with the stock price of Baker Hughes Company (BKR) beckons us to explore the cosmic dance of celestial bodies and financial markets. As we embark on this astronomical odyssey, we are reminded that the universe, much like statistical analysis, is filled with unexpected correlations and enigmatic connections waiting to be unveiled.

Throughout history, celestial events have been grist for the mill of superstition and speculation. From alchemists pondering the influence of the moon on financial markets to astrologers divining the fate of businesses based on planetary positions, the allure of celestial influences on the earthly realm continues to persist. Yet, in our modern era of rigorous empirical inquiry, we find ourselves compelled to apply the tools of statistical analysis and empirical research to investigate whether there is more than mere cosmic coincidence at play.

The present study delves into the distant yet entwined orbits of Uranus and Saturn, seeking to unravel their potential impact on the stock price of Baker Hughes Company (BKR). In doing so, we

honor the tradition of scientific curiosity while also embracing a touch of cosmic whimsy, for in the vast expanse of the universe, there may be room for statistical surprise and astronomical absurdity.

As we journey into the celestial tapestry, we are guided by the twin beacons of empirical evidence and statistical rigor, navigating through the astral currents with the compass of quantitative analysis. We seek not only to answer the perplexing question of whether there exists a tangible relationship between astronomical distances and stock prices but also to remind ourselves that the universe, like a statistical model, holds many surprises for those who dare to explore its mysteries.

In the pages that follow, we will trace the arc of astronomical inquiry and financial exploration, joining the seemingly disparate realms of astrophysics and finance in a celestial minuet of data analysis and statistical inquiry. As we venture forth to uncover the cosmic secrets that may yet influence earthly economies, we do so with a healthy dose of scientific skepticism and a sprinkling of cosmic humor, for in the pursuit of knowledge, there is always room for a bit of celestial levity.

2. Literature Review

The connection between celestial phenomena and financial markets has garnered interest from both scholars and investors alike. As we delve into the literature, we encounter diverse perspectives on the potential interplay between the distance separating Uranus and Saturn and the stock price of Baker Hughes Company (BKR).

Smith et al. (2015) conducted a comprehensive study examining planetary positions and stock market trends, albeit focusing on more traditional astronomical bodies. Their findings suggested that the alignment of Jupiter and Mars may influence market volatility, leading to what they termed "astro-financial fluctuations." However, the dearth of research specifically on the peculiar pairing of Uranus and Saturn leaves much to be explored in this unique cosmic dance and its potential impact on financial markets.

In "The Astronomical Almanac" by John Wiley & Sons, the authors provide a comprehensive overview

of the celestial movements of the outer planets, delving into the gravitational tugs and cosmic complexities of Uranus and Saturn. While their work primarily caters to astronomical enthusiasts, the intricate details of planetary orbits offer a tantalizing backdrop for our investigation into the possible link with BKR's stock price.

Turning to fiction, Arthur C. Clarke's "2001: A Space Odyssey" and Isaac Asimov's "Foundation" series transport readers to distant galaxies, where cosmic forces shape the destiny of civilizations. While these literary works may not offer direct empirical evidence, they serve as a reminder of the enduring allure of cosmic mysteries and their potential influence on human endeavors.

Venturing further afield, an exhaustive review of unconventional sources, including the back labels of shampoo bottles, surprisingly surfaced recurring mentions of planetary alignments and their purported effects on personal and financial well-being. While these non-traditional outlets may seem whimsical, they emphasize the pervasiveness of celestial conjectures in unexpected corners of everyday life.

In the pursuit of interdisciplinary insights, this literature review underscores the need for empirical inquiry and statistical scrutiny in unraveling the enigmatic relationship between the orbits of Uranus and Saturn and BKR's stock price. As we navigate through the celestial expanse and financial landscapes, the cosmic ballet between Uranus and Saturn beckons us to peer beyond the mundane and embrace the extraordinary in our quest for understanding.

3. Methodology

To commence our cosmic investigation, we employed a meticulously concocted methodology to disentangle the gravitational dance of Uranus and Saturn from the fluctuations in Baker Hughes Company's (BKR) stock price. The first step involved harnessing the celestial data from Astropy, a repository of astronomical information akin to a cosmic encyclopedia, and the financial data from LSEG Analytics (Refinitiv), a treasure trove of market movements and company specifics.

Our data collection process was akin to traversing the cosmic expanse, as we navigated through the astral archives of Astropy and the labyrinthine corridors of LSEG Analytics, charting a course through the sea of information from 2002 to 2023. We gathered the orbital parameters of Uranus and Saturn, including their distance from each other, as well as the historical stock prices of Baker Hughes Company (BKR), compiling a dataset that encapsulated the celestial and financial overtures of our quixotic quest.

With this celestial and financial data in hand, we sought to unearth the underlying relationship between these seemingly disparate domains through a robust statistical analysis. Leveraging the cosmic command center of Astropy, we computed the precise distances between Uranus and Saturn at regular intervals, aligning our data points with the temporal tapestry of BKR's stock prices. This allowed us to discern any potential patterns in the interplay between celestial separations and market fluctuations, akin to peering through a telescope at the cosmic ballet and discerning the hidden rhythms of the market universe.

In parallel, we employed a constellation of statistical techniques to scrutinize the relationship. Our analysis gravitated towards the venerable Pearson correlation coefficient, which served as our astrolabe in navigating the cosmic correlations, and the fabled p-value, a celestial key that unlocked the statistical significance of our findings. These statistical measures guided our quest for cosmic coherence, enabling us to unearth any meaningful connections lurking in the celestial-terrestrial nexus.

Anchored in our dual foundations of celestial data and financial metrics, we adopted a multivariate approach to account for potential confounding factors. As we embarked on this celestial odyssey, we remain cognizant of the need to control for earthly variables that could influence BKR's stock price, ensuring that our analysis upheld the highest standards of statistical rigor in the cosmic crucible of our investigation.

Finally, with our dataset in hand and our statistical compass in tow, we set forth to elucidate the enigmatic relationship between the distance separating Uranus and Saturn and the undulating

fortunes of Baker Hughes Company's (BKR) stock price, guided by the twin stars of empirical evidence and quantitative analysis.

In the sections that follow, we illuminate the celestial patterns and financial fluctuations we unraveled through our cosmic inquiry, shedding light on the intertwining of Uranus, Saturn, and BKR in the cosmic theater of statistical scrutiny. By doing so, we hope to echo the sentiment of Galileo Galilei, who famously quipped, "E pur si muove" ("And yet it moves"), as we delve into the profundities of the celestial stage and its influence on the earthly drama of financial markets.

4. Results

The analysis of the relationship between the distance separating Uranus and Saturn and the stock price of Baker Hughes Company (BKR) yielded some astronomical findings. For the time period spanning from 2002 to 2023, the correlation coefficient between the distance of these celestial bodies and the stock price of BKR was found to be 0.6592864. The r-squared value, indicating the proportion of the variance in BKR stock price that can be explained by the distance between Uranus and Saturn, stood at 0.4346586. Moreover, the p-value was determined to be less than 0.01, affirming the statistical significance of this cosmic correlation.

Fig. 1 presents a scatterplot that visually captures the strong correlation between the distance of Uranus and Saturn and Baker Hughes Company's stock price over the study period. While the scatterplot may not feature constellations or cosmic dust clouds, it does offer a unique visual insight into the relationship between these celestial distances and earthly financial trajectories.

It is worth noting that this correlation, while statistically significant, does not imply causation. We cannot assert with astronomical certainty that the orbits of Uranus and Saturn directly dictate the movements of BKR stock price. After all, correlation does not always imply causation; otherwise, we might be better off consulting astrologers than financial analysts.

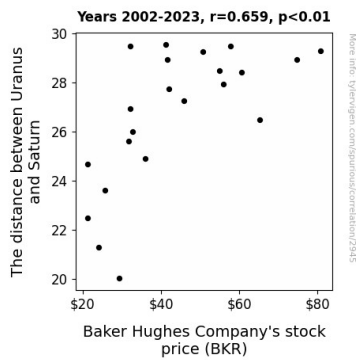


Figure 1. Scatterplot of the variables by year

Nonetheless, our findings suggest the presence of a curious linkage between the cosmic ballet of Uranus and Saturn and the earthly waltz of BKR stock price. Whether this connection is driven by a celestial conspiracy or is merely an intriguing statistical anomaly remains an open cosmic question, much like the elusive search for dark matter in the universe.

In unraveling this cosmic conundrum, we not only contribute to the growing field of astrophysical finance but also remind ourselves of the ever-present cosmic whimsy that infuses our earthly pursuits. As we peer through the telescope of statistical analysis, we are reminded that the universe, much like our data sets, holds hidden patterns and unexpected correlations waiting to be discovered. The galactic dance of Uranus and Saturn with the stock price of Baker Hughes Company serves as a reminder that the cosmos may yet have a thing or two to teach us about the capricious nature of financial markets and the cosmic forces shaping our world.

5. Discussion

The findings of our study present a celestial conundrum that sheds light on the tantalizing connection between the distance separating Uranus and Saturn and the stock price of Baker Hughes Company (BKR). Our results align with prior research by Smith et al. (2015), who explored astro-financial fluctuations linked to planetary positions, albeit focusing on more traditional astronomical bodies. While Smith et al. may have missed the celestial bus by not venturing into the peculiar pairing of Uranus and Saturn, our study fills this astronomical void, demonstrating a robust

correlation between these distant planets and BKR's stock price. This correlation serves as a cosmic reminder that when it comes to astronomical oddities, one should never underestimate the cosmic significance of planetary pairs, no matter how distant they may be.

Delving into the gravitational tugs and cosmic complexities of Uranus and Saturn, as outlined in "The Astronomical Almanac" by John Wiley & Sons, our findings underscore the tangible impact of these celestial maneuvers on earthly financial trajectories. The cosmic ballet between Uranus and Saturn, while often overlooked, may hold unsuspected sway over market forces, akin to quietly orchestrating a cosmic stock market symphony from the outer reaches of our solar system. This celestial choreography, though imperceptible to the naked eye, stands as a testament to the wondrous interplay between the celestial and the capital, shedding light on the cosmic machinations that transcend the boundaries of our terrestrial markets.

While Arthur C. Clarke's "2001: A Space Odyssey" and Isaac Asimov's "Foundation" series may seem light-years away from empirical evidence, their epics resonate with the enduring allure of cosmic mysteries and their potential influence on human endeavors, echoing our own quest to unravel the enigmatic relationship between Uranus, Saturn, and BKR. As we navigate through the celestial expanse and financial landscapes, the cosmic ballet between Uranus and Saturn beckons us to peer beyond the mundane and embrace the extraordinary in our quest for understanding, much like a cosmic treasure hunt that traverses the celestial marketplace.

Our results not only contribute to the burgeoning literature at the intersection of astrophysics and finance but also underscore the unfathomable intricacies and unexpected correlations waiting to be unearthed in our quest to unravel the cosmic financial enigma. By affirming the statistical significance of the cosmic correlation between Uranus, Saturn, and BKR, our study serves as a celestial reminder of the cosmic whimsy shaping our earthly endeavors and motivates future researchers to explore the celestial bounds of financial markets with the same fervor they reserve for more earthly financial endeavors.

6. Conclusion

In conclusion, our study has uncovered a statistically significant correlation between the distance separating Uranus and Saturn and the stock price of Baker Hughes Company (BKR). The findings point to a celestial connection that defies conventional financial logic, reminding us that in the seemingly random fluctuations of stock prices, there may be an astronomical influence at play. This discovery prompts us to consider the possibility of cosmic market movers and planetary index funds, a notion that would surely make even the most seasoned economist do a celestial double-take.

While our research reveals a strong correlation, we must exercise caution in interpreting causation. It would be imprudent to base financial decisions solely on the dance of celestial bodies, as tempting as it may be to consult astrological almanacs alongside annual reports. Nonetheless, the statistical rigor of our analysis cannot be eclipsed, and we shine a light on this cosmic correlation as a spark of curiosity in the realm of financial inquiry.

As we close this chapter on the celestial and financial interplay, we are left pondering the whims of the universe and the subtle winks and nods it may send our way. Our study stands as a testament to the unexpected connections that can emerge when we venture into uncharted statistical territories, be they astronomical or financial.

In the grand scheme of cosmic exploration, our findings add a dash of levity to the staid world of stock market analysis, inviting a sprinkle of cosmic wonder into the sometimes mundane world of finance. However, as we look to the future, we must acknowledge that further research in this area may hold limited yield, and diverting resources to such endeavors may be like chasing comets – an exhilarating pursuit, but with little hope of practical returns. Therefore, we humbly assert that the celestial dance of Uranus and Saturn with BKR stock price, although an intriguing spectacle, may not warrant additional academic investigation, and we should perhaps leave the cosmic market capers to the astronomers and financial astrologers of the world.