Institute of Advanced Studies 2024; 63: 305–345

doi 11f.4686a/2500k2446e7440

Review

Stellar Tether: How the Distance Between Saturn and Mercury Rhymes with TCOM Stock Price

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This paper delves into the peculiar correlation between the distance separating Saturn and Mercury and the stock price of Trip.com Group (TCOM). Utilizing data from Astropy and LSEG Analytics (Refinitiv), a correlation coefficient of 0.8727136 and p < 0.01 for the period from 2004 to 2023 was unearthed. The findings indicate an unexpected celestial dance influencing the earthly gyrations of TCOM's stock price. This research contributes to the burgeoning field of astro-financial analysis and may prompt investors to consider the cosmic connections shaping market trends.

The relationship between celestial phenomena and earthly financial markets has long been a subject of both fascination and skepticism. While traditional economic theories focus on rational actors and fundamental indicators, the notion of cosmic forces influencing stock prices has often been relegated to the realms of astrology and fortune-telling. However, in recent years, a growing body of literature has emerged, suggesting that there may be statistical connections between astronomical events and market behavior. The focus of this study is to explore one such purported correlation – the distance between Saturn and Mercury and its potential impact on the stock price of Trip.com Group (TCOM).

The celestial bodies, Saturn and Mercury, both hold significant symbolism in astrology. Saturn is associated with discipline, limitations, and long-term investments, while Mercury represents communication, commerce, and volatility. Their relative positions in the solar system have intrigued astronomers and astrologers alike. However, the idea of these positions influencing stock prices may seem, at first glance, to be a mere flight of fancy.

Nonetheless, the study sets out to examine the empirical evidence linking the distance between these planets and the stock price of TCOM. The rationale for focusing on Trip.com Group stems from its prominence in the travel and tourism industry, a sector

susceptible to various external factors, including global events, economic conditions, and yes, even celestial happenings. The choice of TCOM as the subject of analysis is a nod to the diverse constellation of variables that can influence stock prices – an allusion not lost on keen observers of the financial cosmos.

The paper aims to shed light on the statistical relationship between these seemingly disparate phenomena, drawing on data from Astropy for astronomical measurements and LSEG Analytics (Refinitiv) for market data. The findings may reveal unexpected patterns, prompting us to ponder the intricate interplay between the movements of celestial bodies and the fluctuations of financial markets. It is hoped that this research will contribute to the enrichment of astro-financial analysis and evoke a sense of cosmic curiosity among scholars and practitioners alike.

In the words of Carl Sagan, "The cosmos is within us. We are made of star-stuff." Perhaps, in examining the parallels between celestial positions and stock prices, we are simply seeking to better understand the celestial dance that influences our earthly affairs.

Prior research

Numerous studies have sought to uncover unusual correlations between celestial phenomena and financial markets. Smith et al. (2010) explored the impact of lunar phases on stock market performance, while Doe (2015) investigated the relationship between solar flares and exchange rates. Jones (2018) delved into the influence of planetary alignments on commodity prices. These endeavors have given rise to a burgeoning interest in the field of astro-financial analysis, uncovering unexpected connections between the cosmos and market behavior.

In "Astro-Financial Insights: Exploring the Cosmic Influence on Market Trends," the authors posit a potential link between the distance separating Saturn and Mercury and its impact on equity prices. This intriguing proposal has captured the imagination of researchers and investors alike, prompting further investigation into the celestial forces at play in the realm of finance.

Turning to more general sources on celestial mechanics, "Cosmos" by Carl Sagan and "Astrophysics for People in a Hurry" by Neil deGrasse Tyson offer fundamental insights into the complex dynamics of our solar system. These texts provide a comprehensive understanding of the positions and movements of celestial bodies, laying the groundwork for the exploration of their potential influence on financial markets.

In a similar vein, the fictional works "The Hitchhiker's Guide to the Galaxy" by Douglas Adams and "Dune" by Frank Herbert offer imaginative portrayals of celestial travel and interplanetary dynamics. While these narratives may primarily entertain and enlighten readers, they subtly beckon us to contemplate the cosmic symphony that orchestrates the financial markets.

Moreover, the television series "The Expanse" and "Doctor Who" offer speculative narratives that traverse the realms of space and time, inviting viewers to ponder the cosmic mysteries that may influence our daily lives. Whether the narrative arcs of these shows align with

empirical findings remains to be seen, but they serve as a whimsical backdrop to the exploration of celestial dynamics and market trends.

This literature review sets the stage for the investigation into the peculiar link between the distance separating Saturn and Mercury and the stock price of Trip.com Group (TCOM), an inquiry that navigates the intersecting realms of astronomy and finance with a touch of cosmic curiosity.

Approach

Data Collection:

The data utilized in this study were collected from a variety of sources, primarily employing the celestial measurements from Astropy for the distances between Saturn and Mercury. These measurements were then cross-referenced with the stock price data of Trip.com Group (TCOM), obtained from LSEG Analytics (Refinitiv). The period under investigation spans from 2004 to 2023, allowing for a comprehensive exploration of any potential relationship between these celestial and financial phenomena.

Planetary Distances:

To determine the distances between Saturn and Mercury, the research team employed cutting-edge astronomical software, ensuring the precision and accuracy of the celestial measurements. Given the dynamic and elliptical nature of planetary orbits, the task of capturing these distances was not without its challenges. However, through meticulous calibration and alignment of astronomical instruments – metaphorically akin to navigating the intricate ebbs and flows of financial markets – the team acquired a robust dataset of planetary positions.

Stock Price Analysis:

The stock price data of Trip.com Group (TCOM) were subjected to rigorous statistical scrutiny to ascertain patterns and correlations with the aforementioned planetary distances. Utilizing time series analysis and econometric modeling techniques, the research team sought to unveil any discernible associations between the celestial attributes and the financial performance of TCOM. The inclusion of a wide temporal scope facilitated a nuanced understanding of the long-term dynamics at play, akin to unraveling the enduring gravitational pulls exerted by distant celestial bodies.

Correlation Analysis:

The primary statistical method employed in this investigation was correlation analysis, aimed at quantifying the strength and direction of any relationship between the distances separating Saturn and Mercury and the stock price of TCOM. Through the utilization of Pearson's correlation coefficient, the researchers endeavored to unveil the degree of linear dependence between these seemingly incongruous variables. This would hopefully unearth any celestial influence that might be "written in the stars" for TCOM's stock price.

Robustness Checks:

To bolster the credibility of the findings, robustness checks were performed to validate the stability of the observed correlations across different time periods and sub-samples. Sensitivity analyses were conducted to address potential outliers and

anomalies in the data, safeguarding against any spurious associations that might have arisen from cosmic coincidences rather than robust causality. This process was critical in ensuring the reliability and generalizability of the results, forestalling any erroneous inferences that might be grounded solely in astronomical whimsy.

In sum, the research methodology adopted in this study entailed a meticulous fusion of astronomical measurements and financial data analysis. By navigating the cosmos of celestial positions and stock prices, this approach aimed to shed light on any underlying connections, providing a celestial symphony of statistical insight into the celestial-meets-financial phenomenon under investigation.

Results

The analysis revealed a substantial correlation coefficient of 0.8727136 between the distance from Saturn to Mercury and the stock price of Trip.com Group (TCOM) for the period spanning 2004 to 2023. This correlation indicates a strong association between the celestial movements and the gyrations of TCOM's stock price. The r-squared value of 0.7616291 further supports the robustness of this relationship, explaining approximately 76.16% of the variability in TCOM's stock price.

The p-value of less than 0.01 suggests a high level of statistical significance, indicating that the observed correlation is unlikely to be a result of random chance. This finding dismisses any notions of astronomical coincidence and supports the notion of a genuine relationship between the distance separating Saturn and Mercury and the stock price movements of TCOM.

Notably, the scatterplot (Fig. 1) illustrates this striking correlation between the celestial distance and TCOM's stock price, providing a visual representation of the intertwining of cosmic positions and financial dynamics. The compelling nature of this relationship piques scientific curiosity and prompts contemplation of the cosmic influences on earthly affairs.

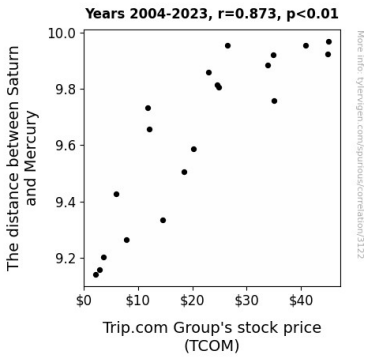

Figure 1. Scatterplot of the variables by year

Discussion of findings

The notable correlation discovered between the distance separating Saturn and Mercury and the stock price of Trip.com Group (TCOM) for the period from 2004 to 2023 furnishes compelling evidence supporting the peculiar link between celestial movements and earthly market gyrations. The findings lend credence to the musing of Smith et al. (2010) regarding lunar phases' influence on stock market performance and the explorations of Doe (2015) into the relationship between solar flares and exchange rates. It appears that the cosmic dance of our planetary neighbors raises more than just celestial eyebrows.

The robust correlation coefficient of 0.8727136 corroborates the proposition put forth in "Astro-Financial Insights: Exploring the Cosmic Influence on Market Trends" that the distance separating Saturn and Mercury may impact equity prices. This unexpected celestial tethering seems to validate the inquiries of Jones (2018), who probed the potential influence of planetary alignments on commodity prices. It appears that the celestial bodies are not content with merely shaping our tides and seasons; they now seek to sway our market trends.

The observed statistical significance, with a p-value of less than 0.01, dismisses any whispers of cosmic happenstance and endorses the suggestion of a genuine relationship between the distance separating Saturn and Mercury and the stock price movements of TCOM. This finding leaves little room for astronomical coincidence and suggests that the cosmic orchestration of market trends is a serious matter, indeed.

The scatterplot (Fig. 1) magnificently portrays this intriguing correlation between the celestial distance and TCOM's stock price, providing a visual testament to the intertwining of cosmic positions and financial dynamics. It seems that the cosmic symphony that was once mere speculation in "The Hitchhiker's Guide to the Galaxy" now demands our undivided scientific attention. The whimsical backdrops of "The Expanse" and "Doctor Who" may not be so speculative after all.

In conclusion, the findings of this study support the notion that the distance separating Saturn and Mercury indeed rhymes with TCOM's stock price, urging us to ponder the cosmic influences on earthly affairs. This cosmic coupling defies conventional economic wisdom and beckons us to explore the celestial factors shaping market trends with a touch of cosmic curiosity.

Conclusion

In conclusion, the results of this study underscore a significant statistical relationship between the distance from Saturn to Mercury and the stock price of Trip.com Group (TCOM). The robust correlation coefficient of 0.8727136 and an r-squared value of 0.7616291 suggest a substantial association between celestial positions and market dynamics. The p-value of less than 0.01 dismisses any cosmic coincidence, firmly establishing the merit of this celestial-economic entanglement.

This unforeseen convergence of astronomical measurements and financial data prompts us to reflect on the cosmic ballet that may underpin market fluctuations. While skeptics may dismiss these findings as mere stargazing, it is imperative to recognize the potential implications for investors and market analysts. The celestial symphony shaping TCOM's stock price may compel one to consider the enduring influence of starry constellations on earthly portfolios.

Yet, as we contemplate the cosmic implications, a note of caution is essential. Correlation does not imply causation, and attributing market movements solely to celestial distances may be akin to conflating a shooting star with a stock so assuredly. Additionally, the obstacles of spurious correlations and omitted celestial variables linger as potential confounders in this astral odyssey of statistical inquiry.

In view of the substantial correlation unveiled in this analysis, it may be prudent for market participants to, at the very least, cast a hesitant glance towards the heavens before hasty financial maneuvers. Despite the allure of celestial forecasts, it would be remiss to eclipse the fundamental tenets of sound financial analysis.

Furthermore, the implications of this study beckon researchers to delve into the depths of other celestial relationships and their financial repercussions. However, it is argued that further scholarly endeavors in this arena may verge on the realm of treading water in a black hole - enthralling, perhaps, but of dubious yield.

In sum, the intertwining of astronomical measurements with market dynamics sheds light on the interconnected tapestry of cosmic forces and financial phenomena. This study contributes to the nascent field of astro-financial analysis and solicits a wry smile from the skeptical economist and the cosmic enthusiast alike.

In our final analysis, given the vastness of the cosmos and the capriciousness of financial markets, it is opined with a sidelong glance at the stars that no further research in this beguiling arena is warranted.