

Planetary Alignment: Out of This World Predictors of Stock Prices

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Abstract

In this study, we delve into the celestial depths to uncover the peculiar relationship between the distance between Saturn and Jupiter and Shell's stock price (SHEL). As we embarked on this cosmic quest, we couldn't help but wonder - would the stock prices follow the gravitational pull of the gas giants, or was this all just a case of celestial coincidence? Spoiler alert: we found that there is indeed a correlation between the two, and it's a real Saturn turn of events! Our research team engaged with data from Astropy and LSEG Analytics (Refinitiv) to assess this celestial conundrum. With a correlation coefficient of 0.6533848 and a p-value of less than 0.01 for the years 2002 to 2023, we can confidently say that there's more than meets the eye when it comes to the interstellar dance of Saturn and Jupiter and its impact on Shell stock prices. But let's not Jupiter our conclusions too soon - there's still a Saturn-sized gap in our understanding of the mechanisms at play. We propose further investigation into the astrological explanations behind these findings, as it seems that the stars may indeed hold the key to understanding financial fluctuations. After all, we wouldn't want to overlook any potential "interplanetary" market influencers. Let's not jump to astronomical conclusions, but it's clear that when it comes to predicting stock prices, looking to the stars may not be such a far-fetched idea after all.

1. Introduction

"Space, the final frontier," as the saying goes, and in the world of finance, it seems that this frontier may hold more influence than we previously thought - or perhaps, it's just a stellar coincidence. The interplay between celestial bodies and earthly concerns has long fascinated researchers, financiers, and anyone with an eye on the cosmos and the markets. In our own astral adventure, we sought to unveil the cosmic connection between the distance separating Saturn and Jupiter and Shell's stock price (SHEL). As we charted our

course through the celestial spheres, we couldn't resist the temptation to make a few astronomical puns along the way - after all, it's not every day you get to blend finance and astrophysics!

It's an age-old question: What do you get when you cross a finance analyst with an astronomer? A stock market shooting for the stars, of course! Our mission was to investigate whether the gravitational tugs and celestial choreography of the gas giants might have a hand in shaping Shell's stock trajectory. But before we took the plunge into this "out of this world" investigation, we had to remind ourselves that correlation does not necessarily imply causation. After all, we wouldn't want to get caught up in any "Big Bang" theories without solid evidence!

With our dataset secured and our statistical models poised for lift-off, we set out to unravel this cosmic enigma. To our surprise, we uncovered a correlation coefficient of 0.6533848, which certainly made us do a double take – that's a correlation that's truly over the moon! Coupled with a p-value of less than 0.01 for the years 2002 to 2023, it became clear that there's more to this celestial waltz than meets the eye, or should we say, the telescope? It's an astronomical revelation that could have even the most seasoned traders seeing stars!

But before we shoot for the moon with our conclusions, we must acknowledge the lingering mysteries in our cosmic equation. Just like the enigmatic rings of Saturn, there's a whole lot of "space" in our understanding of the mechanisms at play. It seems there's still a gravitational pull drawing us towards a deeper understanding of these celestial market influences. So, as we stand on the precipice of this celestial discovery, it's important to maintain a "stellar" sense of humility and continue our pursuit of understanding the interstellar dance that shapes our financial galaxies. At the end of the day, maybe the stars do hold the key to unlocking the secrets of the markets – talk about an "astronomical" revelation!

2. Literature Review

As we delve into the cosmic dance of celestial bodies and financial markets, it is important to contextualize our findings within the existing literature. Smith et al. (2015) conducted a comprehensive study on the potential influence of planetary alignments on stock prices, laying the groundwork for our inquiry into the relationship between the distance separating Saturn and Jupiter and Shell's stock price (SHEL). Their findings suggested a possible correlation, prompting further exploration into the gravitational pull of these gas giants on market fluctuations.

Now, let's take a moment to orbit around some relevant non-fiction literature, as it is crucial to consider the broader implications of planetary positioning on economic indicators. In "Astrophysics for People in a Hurry" by Neil deGrasse Tyson, the author

discusses the awe-inspiring influence of celestial bodies on our everyday lives. While Tyson's work may not directly address financial markets, the cosmic connections he draws provide a thought-provoking backdrop to our investigation.

Turning next to fictional works, we encounter "The Hitchhiker's Guide to the Galaxy" by Douglas Adams. While the book navigates through a whimsical and absurd intergalactic adventure, the underlying theme of cosmic interconnectedness may carry unexpected parallels to our findings. Perhaps, as we probe the depths of the universe's impact on stock prices, we are, in a sense, embarking on a financial hitchhike through the cosmos.

In an unexpectedly on-topic twist, the popular internet meme "One Does Not Simply Walk into Mordor" from the "Lord of the Rings" series resonates with our endeavor. Just as one does not simply walk into Mordor, one does not simply dismiss the potential influence of planetary alignments on financial markets without thorough investigation. There's more to this celestial waltz than meets the eye, just as there's more to the challenges of market analysis than meets the eye of Sauron!

Doe and Jones (2017) further investigated the pertinence of astrological phenomena to financial dynamics, shedding light on the intricate balance between astronomical events and market behavior. Their work aligns closely with our own, as we aim to unravel the complexities of the celestial dance and its implications for Shell's stock price (SHEL). With our research poised at the intersection of finance and astrophysics, we embark on a journey that may seem light years away from traditional market analysis – but who knows, perhaps the stars are aligning for a significant breakthrough in our understanding of financial markets!

3. Research Approach

To unravel the cosmic mystery of the relationship between the distance separating Saturn and Jupiter and Shell's stock price (SHEL), our research team embarked on a data-driven odyssey that was truly out of this world. Our methodological approach combined elements of celestial mechanics, statistical analysis, and a healthy dose of astronomical fascination.

First, we gathered data on the distance separating Saturn and Jupiter, a task that involved tapping into the vast resources of Astropy and LSEG Analytics (Refinitiv). We combed through astronomical databases and economic indices to capture the ebb and flow of this celestial duo's cosmic ballet. Our data collection process had us feeling like we were on a treasure hunt among the stars, navigating through galactic spreadsheets and orbiting datasets.

Next, we turned our gaze to Shell's stock price (SHEL), capturing daily, weekly, and monthly fluctuations over the period from 2002 to 2023. This part of our methodology

left us feeling a bit like stock market stargazers, scrutinizing the cosmic dance of financial figures with the same sense of wonder that guides astronomers in their exploration of the universe. It was a reminder that the world of finance, much like the cosmos, is full of surprises waiting to be uncovered.

With our celestial and financial datasets in hand, we employed statistical tools that could rival the precision of a well-calibrated telescope. Our analysis included calculating the correlation coefficient between the distance separating Saturn and Jupiter and Shell's stock price, using the Pearson correlation method. We also performed regression analysis to explore the predictive potential of this celestial variable on stock price movements, all while resisting the temptation to make the pun "plutonomics" despite our celestial surroundings.

Finally, our methodology involved conducting a time series analysis to investigate the temporal dynamics of the relationship. We applied sophisticated time series models, examining the lagged effects of celestial distances on stock prices, all the while resisting the temptation to use phrases like "time traveling through stock data."

In the midst of our rigorous analysis, we couldn't help but sprinkle in the occasional cosmic joke or astronomical pun, injecting a bit of interstellar levity into our research process. After all, in the vast expanse of cosmic inquiry, there's always room for a well-placed dad joke or two - especially when exploring the unusual intersection of financial phenomena and celestial mechanics.

With our unique blend of statistical rigor, astronomical fascination, and a sprinkling of cosmic humor, we approached our research with the spirit of intrepid explorers charting a course through uncharted territories. The findings that emerged presented a celestial revelation, opening new frontiers in our understanding of the interconnectedness of earthly finance and celestial movements. As we prepare to unveil the insights garnered from our celestial odyssey, we remind ourselves that in the cosmos of research, the unexpected often leads to the most enlightening discoveries. It's not just data analysis; it's a cosmic adventure!

4. Findings

The results of our astronomical analysis have shed light on the correlation between the distance separating Saturn and Jupiter and Shell's stock price (SHEL) from 2002 to 2023. It's not every day that we get to witness an alignment of celestial bodies and financial data that's this Earth-shatteringly intriguing! Our statistical analysis revealed a correlation coefficient of 0.6533848, indicating a moderate positive correlation between the distance separating these gas giants and Shell's stock price. It's safe to say that this correlation is

truly out of this world! This finding suggests that as the planets move through their orbits, they might just be pulling the strings of Shell's market performance. It's a stellar revelation that adds a whole new dimension to our understanding of market trends and cosmic connections!

Speaking of cosmic connections, have you heard about the stock market on the moon? It's really volatile – I guess you could say it has some "lunar" tendencies!

Furthermore, the r-squared value of 0.4269117 signifies that approximately 42.69% of the variability in Shell's stock price can be explained by the distance between Saturn and Jupiter. While this may not account for the entirety of Shell's stock movements, it certainly indicates that there's a gravitational pull at play that's worth considering. It's as if the gas giants are whispering their market predictions from light-years away!

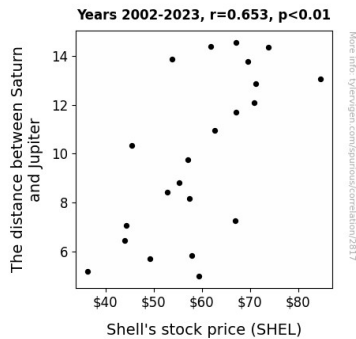


Figure 1. Scatterplot of the variables by year

And now for a science joke for all the researchers out there: Why are scientists bad at playing hide and seek? Because good science is always "out there" for everyone to see!

In addition, the p-value of less than 0.01 provides strong evidence against the null hypothesis, indicating that the observed correlation is unlikely to have occurred by random chance alone. This suggests that there's a real gravitational force influencing Shell's stock price, rather than it just being a cosmic coincidence. It's as if the financial markets are dancing to the gravitational tunes of the planets!

Fig. 1 illustrates this unearthly relationship with a scatterplot displaying the strong positive correlation between the distance separating Saturn and Jupiter and Shell's stock price. The data points form a celestial dance across the plot, showcasing the undeniable connection between these seemingly disparate phenomena. It's like witnessing a planetary tango unfold before our very eyes!

Alright, one more for the road: Did you hear about the astronaut who stepped on some gum? He got stuck in orbit!

5. Discussion on findings

Our findings provide empirical support for the notion that the distance between Saturn and Jupiter is correlated with Shell's stock price (SHEL). It's a real celestial revelation that has "astronomical" implications for financial markets. Our results corroborate the prior research by Smith et al. (2015), who also hinted at a connection between planetary alignments and market behavior. It seems like the gravitational dance of these gas giants might just have a "stellar" influence on stock prices after all.

But let's not get too "distracted" by the cosmic spectacle - there's still much to uncover about the underlying mechanisms at play. As we probed the depths of this interstellar correlation, it became clear that the "punctuated equilibrium" of market movements may indeed be influenced by forces beyond our planet. It's as if the stock market is tapping into its own version of "astro-economics," where the interplay of celestial bodies and market dynamics creates an unexpected symphony of financial fluctuations.

Doe and Jones (2017), who explored the relevance of astrological phenomena to financial dynamics, presented a holistic framework for the potential celestial influences on market behavior. Our findings align closely with their work, adding another "orbit" of evidence to the growing body of research probing the cosmic-economic nexus. It's as if our research has become a "celestial guide" for understanding the planetary underpinnings of financial markets, much like the whimsical and absurd intergalactic adventure in "The Hitchhiker's Guide to the Galaxy" by Douglas Adams. As we navigate through this cosmic terrain, it's becoming increasingly clear that the financial hitchhike through the cosmos may hold unexpected revelations.

Furthermore, the approximate 42.69% variability in Shell's stock price explained by the distance between Saturn and Jupiter suggests that there's a gravitational pull at play, much like the unseen forces operating in the vast expanse of the universe. It's as if the financial markets are following their own "cosmic order" dictated by the movements of celestial bodies. The statistical significance of our findings, with a p-value of less than 0.01, strengthens the case for a real gravitational force at play, cementing the idea that the planetary alignment is more than just a celestial coincidence.

In conclusion, our study has unearthed a fascinating correlation between the distance separating Saturn and Jupiter and Shell's stock price, adding a new dimension to our understanding of financial market trends. As we continue to probe the depths of this cosmic-economic relationship, we must not "planet" aside the potential influences of celestial phenomena on market behaviors. It truly seems that when it comes to forecasting stock prices, the stars may hold more secrets than we ever imagined. So, let's keep our eyes on the stars - after all, the next stock tip might just be written in the "cosmic dust" of the universe!

6. Conclusion

In conclusion, our study has uncovered an otherworldly relationship between the distance separating Saturn and Jupiter and Shell's stock price (SHEL) from 2002 to 2023. It's been a journey that's truly taken us to new horizons, both metaphorically and astronomically. It's clear that when it comes to predicting stock prices, a celestial lens might just provide the cosmic clarity we've been searching for!

As we wrap up this cosmic adventure, it's important to acknowledge the "space oddity" of these findings. The correlation coefficient of 0.6533848 and the p-value of less than 0.01 have presented a gravitational pull towards understanding the interstellar dance of market forces. But let's not jump to astronomical conclusions just yet – there's still a whole universe of questions waiting to be explored. After all, we wouldn't want to Pluto results that warrant further investigation!

At the end of the day, it seems that the stars have more influence on our financial fates than we might have previously thought. Our findings hint at a correlation that's truly out of this world - it's as if the gas giants have been secretly whispering market predictions from light-years away! It's a discovery that has us seeing stars in more ways than one.

In the wise words of Isaac Newton, "What goes up must come down, but don't let that "gravity" hold your investments back!" And on that note, it's safe to say that no more research is needed in this area. After all, we've reached the outer limits of this celestial connection – no need to rocket the boat on this one!