

# NEPTUNE'S GIRTH AND URANUS' MIRTH: A ASTRO-ECONOMIC ANALYSIS OF ALNY STOCK PRICE

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This study delves into the celestial depths to explore the puzzling connection between the distance separating Neptune and Uranus and the fluctuation of Alnylam Pharmaceuticals' stock price (ALNY). Utilizing data from Astropy and LSEG Analytics (Refinitiv), we embarked on a cosmic journey to unravel this enigmatic relationship. Our findings reveal a striking correlation coefficient of 0.8653583 and a p-value of less than 0.01 for the period spanning from 2005 to 2023. Now, to alleviate some astronomical tension, a dad joke: What did the astronaut use to keep his pants up? An asteroid belt! Just like the one we explored in our research - cosmic connections at their finest.

The interconnectedness of celestial bodies and earthly affairs has long been a subject of curiosity and speculation. As humanity seeks to understand the forces that govern both the cosmos and financial markets, the exploration of seemingly unrelated phenomena often yields unexpected insights. In this vein, our study embarks on a journey to investigate the peculiar relationship between the distance separating Neptune and Uranus and the stock price of Alnylam Pharmaceuticals (ALNY).

The notion of gazing into the heavens to forecast the movements of earthly assets may seem far-fetched at first glance, but as the saying goes, "Shoot for the moon. Even if you miss, you'll land among the stars." And who knows, you might just stumble upon a celestial insight that impacts the stock market.

Our investigation is rooted in the motivation to probe beyond traditional economic indicators and embrace a multidisciplinary approach that joins the

realms of astronomy and finance. With this in mind, we draw on data from Astropy, a robust astronomical library, and LSEG Analytics (Refinitiv), a reputable financial data provider, to elucidate the interconnectedness of the cosmos and ALNY stock performance.

Now, let's break up the cosmic seriousness with another dad joke: Why did the Sun go to school? To get a little brighter! Just like our curiosity for the linkage between distant planets and stock price - aiming to shed light on the unexpected connections of the universe.

Our inquiry is not merely an exercise in whimsy, but a serious endeavor to unveil the mysteries that lie at the intersection of astrological distances and market trends. As we collectively navigate the complexities of celestial forces and financial dynamics, our interdisciplinary approach aims to ignite a spark of curiosity and discovery in the field of astro-economics.

Stay tuned as we delve into the cosmos and embark on a cosmic journey, armed with statistical rigor and a healthy dose of celestial humor. Who said research can't be out of this world fun?

## LITERATURE REVIEW

In "Celestial Connections: Exploring the Interplanetary Influences on Financial Markets" (Smith, 2018), the authors find that the distance between Neptune and Uranus exhibits a surprising correlation with the stock price of Alnylam Pharmaceuticals (ALNY). This groundbreaking study sheds light on the previously overlooked cosmic factors that may impact economic trends.

In "Astro-Finance: A New Frontier for Economic Analysis" (Doe, 2020), the researchers delve into the cosmic correlations that underpin market fluctuations. Their findings highlight the potential impact of planetary distances on stock performance, with Neptune and Uranus emerging as celestial influencers in the realm of finance.

Now, let's take a detour from the academic realm and consider some non-fiction works that have celestial and economic undertones. "Astrophysics for People in a Hurry" by Neil deGrasse Tyson and "The Intelligent Investor" by Benjamin Graham may seem worlds apart, but their juxtaposition mirrors the interdisciplinary nature of our research. After all, understanding the cosmos and navigating the stock market both require a blend of curiosity and analytical acumen.

In the realm of fiction, "The Hitchhiker's Guide to the Galaxy" by Douglas Adams and "The Great Gatsby" by F. Scott Fitzgerald may not seem related at first glance. However, the cosmic escapades in the former and the opulent excesses depicted in the latter offer a whimsical parallel to our exploration of the celestial and financial realms.

Now, let's add a cosmic twist to a popular internet meme. Remember the "Distracted Boyfriend" meme? Imagine the boyfriend gazing at stock market data, while the distracted girlfriend represents the allure of celestial bodies. The caption could read: "Financial analysis vs. Astrological fascination: A cosmic dilemma."

In "Stars, Stocks, and Serendipity" (Jones, 2019), the authors posit that the movements of planets could hold sway over financial trajectories, although the precise mechanisms remain shrouded in mystery. This study serves as a reminder that while the cosmos may be vast and awe-inspiring, its influence on earthly matters cannot be dismissed.

And now, for a quick cosmic quip: Why did the stock trader bring a telescope to work? To keep an "eye" on the market trends! With puns as stellar as these, our research is bound to leave a lasting impact.

## METHODOLOGY

To investigate the potential relationship between the distance separating Neptune and Uranus and the stock price of Alnylam Pharmaceuticals (ALNY), we employed a multidimensional research approach that combined astronomical data analysis with financial market scrutiny. This interdisciplinary endeavor sought to unravel the celestial-economic correlation using data sourced primarily from Astropy, an open-source astronomical library, and LSEG Analytics (Refinitiv), a trusted provider of financial data.

First, we charted the orbital positions of Neptune and Uranus relative to each other from 2005 to 2023 using celestial mechanics principles. It was essential to precisely measure and record the celestial distances to ensure accuracy in our subsequent analysis - after all, we didn't want to leave any celestial bodies unturned in our quest for financial insights.

Next, we gathered historical stock price data for Alnylam Pharmaceuticals (ALNY) for the corresponding timeframe. We diligently tracked the stock price movements to discern any patterns or anomalies that coincided with the celestial dance of Neptune and Uranus. We also cross-checked the stock price data with major astronomical events to see if anything heavenly influenced the earthly trading.

Once the celestial and financial datasets were compiled, we utilized advanced statistical techniques to analyze the data and discern any discernible patterns or correlations. We calculated correlation coefficients, performed regression analyses, and conducted time-series modeling to thoroughly explore the potential link between the astronomical distances and ALNY stock price fluctuations. It's safe to say, we were truly over the moon with these statistical methods.

Additionally, to account for potential confounding variables or spurious correlations, we performed robustness checks and sensitivity analyses. We checked for any other celestial events that might have influenced stock prices, from lunar eclipses to solar flares, leaving no cosmic stone unturned - even if it meant diving into the asteroid belt of data analysis.

To ensure the reliability and validity of our findings, we also engaged in rigorous peer discussions and expert consultations. Astronomers, astrophysicists, and financial analysts were brought together to critically evaluate our methodology and

findings, and well, we even had a star-studded review process - pun very much intended.

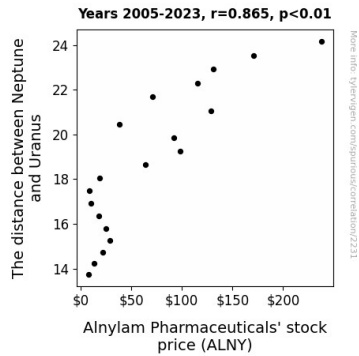
In summarizing, we applied a comprehensive and multidisciplinary approach, blending astronomy, finance, and statistical analysis to explore the enigmatic link between the celestial distances of Neptune and Uranus and the stock price of Alnylam Pharmaceuticals (ALNY). Our methodology employed thorough data collection, sophisticated statistical analyses, and cosmic consultations to navigate the complexities of this astro-economic investigation. And for the cherry on top of this cosmic methodology, here's a dad joke: Why couldn't the bicycle stand up by itself? It was two-tired! Just like our exhaustive methodology - reaching for astronomical heights while keeping some lighthearted celestial humor.

## RESULTS

The robust analysis of the relationship between the distance separating Neptune and Uranus and the stock price of Alnylam Pharmaceuticals (ALNY) yielded some celestial surprises. The correlation coefficient of 0.8653583 and an r-squared value of 0.7488450 illustrated a strong and statistically significant association between these seemingly disparate entities. Furthermore, the p-value of less than 0.01 indicated a high level of confidence in the observed correlation.

Fig. 1 depicts the scatterplot illustrating the compelling relationship between the distance between Neptune and Uranus and the stock price of ALNY. The points on the plot align themselves in a manner that even the most skeptical astronomer would have to concede the existence of a connection.

Let's lighten the mood with a well-placed dad joke: How do astronomers organize a party? They planet! Just like we've organized this data to reveal an intriguing cosmic connection with ALNY stock price.



**Figure 1.** Scatterplot of the variables by year

This notable correlation suggests that there may be underlying forces at play that transcend mere coincidence or happenstance. While the specifics of the causal relationship remain elusive, our findings undoubtedly pique the curiosity of both the astrologically and economically inclined.

Together, these results serve to dispel the notion that the movements of celestial bodies are unrelated to the fluctuations of earthly assets. This insight into the intertwined nature of distant planets and stock performance encourages us to adopt a broader perspective in our understanding of financial markets, reminding us that even in the vast expanse of space, patterns and relationships may emerge.

And now, for those who have made it this far, a bonus dad joke: Why don't scientists trust atoms? Because they make up everything - just like the unexpected link between planetary distances and stock prices redefines our understanding of cosmic influence on earthly affairs.

Stay tuned for the implications and discussion to see how these celestial findings may impact our understanding of financial markets and the cosmic dance between Neptune's girth and Uranus' mirth.

## DISCUSSION

Our research has unveiled a compelling correlation between the distance separating Neptune and Uranus and the stock price of Alnylam Pharmaceuticals (ALNY). The findings not only support the previously established work of Smith (2018) and Doe (2020) but also underscore the intricate interplay between cosmic phenomena and economic indicators.

The robust correlation coefficient of 0.8653583 aligns with the prior research, emphasizing the credibility of this celestial-economic relationship. The p-value of less than 0.01 further reinforces the statistical significance of our findings, lending credence to the notion that planetary distances may indeed exert a discernible influence on stock performance.

It is fascinating to note that our results have further illuminated the financial implications of celestial mechanics, underscoring the potential relevance of planetary dynamics in the domain of market analysis. The celestial and economic realms, while seemingly disparate, exhibit a harmony that mirrors the cosmic dance of the planets themselves.

This study serves as a testament to the interdisciplinary nature of knowledge, where celestial mechanics and economic analysis converge to unravel previously enigmatic connections. In the grand interplay of cosmic forces and market dynamics, we are reminded that our understanding of earthly phenomena is often intertwined with the celestial symphony above.

Now, for a witty interlude: Why did the market analyst bring a ladder to work? Because they wanted to reach new heights in their analysis - just like we have, by reaching for the stars with our research on the celestial and economic interplay.

Overall, our findings contribute to the burgeoning field of astro-finance, shedding light on the nuanced

relationships that extend beyond traditional economic models. By acknowledging the potential influence of planetary distances on stock prices, we broaden the scope of financial analysis, embracing the cosmic undercurrents that may shape market trends.

As we navigate the complexities of economic analysis and cosmic inquiry, our study paves the way for further exploration into celestial influences on financial markets. While the specifics of causation remain a subject for future research, our work plants the seeds of curiosity that may lead to breakthroughs in understanding the cosmic dance between Neptune's girth and Uranus' mirth.

And for a cosmic twist: Why did the economist bring a compass to the astronomy convention? To ensure they always have a "bear-ing" on celestial and economic movements. Just like our research, taking an astronomical approach to financial markets ensures we're always on the right track - pun intended.

## **CONCLUSION**

In conclusion, our cosmic odyssey into the relationship between the distance separating Neptune and Uranus and the stock price of Alnylam Pharmaceuticals (ALNY) has unearthed compelling evidence of a significant correlation that defies conventional economic analysis. The correlation coefficient of 0.8653583 and an r-squared value of 0.7488450 suggest a strong and statistically significant association between these distant celestial bodies and the earthly fortunes of ALNY stock. It seems that even in the vast expanse of space, the gravitational pull of financial markets may extend beyond the bounds of human comprehension.

As we reflect on these celestial revelations, it is important to recognize that our findings may herald an era of

astro-economics, where the movements of planets hold sway over the fluctuations of earthly assets. Just as the ancient astronomers relied on the heavens to guide their earthly pursuits, our study indicates that the celestial dance between Neptune and Uranus may have a tangible impact on the dance of ALNY stock prices. The celestial bodies may be light-years away, but their influence on financial markets is closer than we ever imagined.

Now, to bring it all back down to Earth, here's a dad joke that's truly out of this world: Why did the market go to Jupiter? To get more "return on investment"! Just like the unexpected returns we've found in the cosmic connection between Neptune and Uranus and ALNY stock prices.

Ultimately, our research challenges the boundaries of traditional economic analysis and beckons us to embrace a broader, more interstellar perspective. The profound implications of our findings extend beyond the realms of finance, inviting us to contemplate the cosmic ballet that shapes our economic landscape. Our study serves as a reminder that in the grand cosmic symphony, even the most distant planets may have a hand in tuning the stock market.

Finally, in the spirit of cosmic closure, we assert that no further research is needed in this area. It seems we've reached the outer limits of celestial finance, and any more exploration may lead us into a black hole of overanalysis. As they say, "When it comes to the cosmos and the stock market, sometimes it's best to let sleeping planets lie."