

ASTRODOLLARS: EXPLORING THE CELESTIAL AND FISCAL ORBITS - THE RELATIONSHIP BETWEEN NEPTUNE'S DISTANCE FROM THE SUN AND NASA'S BUDGET AS A PERCENTAGE OF THE US FEDERAL BUDGET

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The correlation between galactic phenomena and fiscal policies has long been a subject of intrigue. In this study, we investigated the intriguing relationship between the distance of Neptune from the Sun and the allocation of NASA's budget as a percentage of the total US Federal Budget. Despite having astronomical implications, it's a topic that's pretty down to Earth... or should I say, out of this world? Using data sourced from Astropy and Planetary.org, we evaluated the correlation between Neptune's distance from the Sun and NASA's budget as a percentage of the total US Federal Budget from 1975 to 2023. Our research yielded a correlation coefficient of 0.8951744 and $p < 0.01$, providing compelling evidence for a significant relationship between these celestial and economic variables. It's almost as if Neptune's distance is pulling on NASA's budget, but instead of tides, it's fiscal decisions! Our findings shed light on the cosmic forces influencing budgetary decisions, highlighting the astronomical implications of earthly matters. By exploring such celestial and fiscal orbits, we hope to encourage further exploration at the intersection of space and finance, paving the way for astrodollar enthusiasts to boldly go where no economist has gone before. After all, when it comes to these celestial economics, the sky's the limit - or should I say, the solar system is the limit?

The intersection of outer space and fiscal policy may seem like an unlikely pairing, but the correlation between celestial phenomena and economic factors has intrigued researchers for decades. In this study, we delve into the intriguing relationship between the distance of Neptune from the Sun and the allocation of NASA's budget as a percentage of the total US Federal Budget. It's as if Neptune's gravitational pull reaches all the way to Capitol Hill - talk about a political superplanet!

As our understanding of the cosmos expands, so does our curiosity about how celestial events may influence earthly affairs. The connection between Neptune's distance from the Sun and

NASA's budget as a percentage of the US Federal Budget is an avenue worth exploring, both for theoretical knowledge and potential practical implications. It's like the universe is asking us to show it the money - or in this case, show NASA the astrodollars!

Drawing on data obtained from Astropy, Planetary.org, and the Office of Management and Budget, we embarked on a rigorous analysis to unveil the potential link between these seemingly disparate variables. Our investigation spanned the years from 1975 to 2023, allowing us to capture and scrutinize the historical patterns of these celestial and fiscal phenomena. It's like we're charting a course through the financial cosmos -

who knew economics could be so otherworldly?

The correlation coefficient of 0.8951744 and a p-value less than 0.01 obtained from our analysis suggest a robust and statistically significant relationship between Neptune's distance from the Sun and NASA's budget as a percentage of the US Federal Budget. To put it simply, there's more to this cosmic dance than meets the eye - it's like a cosmic ballet, but with budgetary decimals twirling around.

This study offers a fresh perspective on the interconnectedness of astronomical and economic forces, extending the frontiers of knowledge into the realms of astrodollars and interplanetary finance. By shedding light on the celestial influences permeating budgetary decisions, we hope to propel further research at the captivating intersection of space and finance. Who knew that planets and pocketbooks could be so cosmically entwined?

LITERATURE REVIEW

Smith et al. (2015) explored the relationship between planetary distances and governmental budget allocations, laying the foundation for subsequent studies in celestial economics. Their work illuminated the intriguing dynamics of celestial bodies influencing fiscal decisions, opening the door to a cosmic realm of economic analysis. It's like they were the astronomers of budgetary decision-making, peering through the telescope of fiscal policy to observe the gravitational pull of celestial objects.

Doe and Jones (2018) extended this research by investigating the specific correlation between Neptune's distance from the Sun and NASA's budget as a percentage of the total US Federal Budget. Their findings supported the notion of a significant association between these variables, painting a celestial tapestry woven with threads of

fiscal significance. It's like they were financial astrologers, deciphering the cosmic alignment of budgetary stars.

In "The Economic Impact of Space Exploration" by Stellar and Galaxy (2019), the authors discuss the broader economic implications of space exploration and its connection to governmental budgetary decisions. While not directly focused on Neptune's orbit, this work provides valuable insights into the intersection of celestial phenomena and fiscal policies, offering a cosmic perspective on financial matters. It's like they were exploring the fiscal black holes and supernova-sized budgets of space exploration.

Turning to non-fiction literature, "The Overview Effect: Space Exploration and Human Evolution" by White (2014) delves into the psychological and philosophical impacts of space exploration on human consciousness. While not directly related to budgetary allocation, the book offers a cosmic mindset that could inspire fiscal stewardship reaching for the stars. It's like the astronauts have a budget for their cosmic enlightenment, and they're reaching for the fiscal moon.

On the fictional side, "The Hitchhiker's Guide to the Galaxy" by Adams (1979) presents a whimsical exploration of space travel and interstellar adventures. While primarily a work of science fiction, the book's imaginative narrative invites readers to ponder the cosmic vastness and perhaps consider the budget implications of intergalactic voyages. It's like they're playing with astrodollars in an economic version of space chess - fiscal gravity keeping the budget pieces in line.

And let's not forget the educational value of children's cartoons and shows. "The Magic School Bus" episode on the solar system provides an accessible introduction to planetary distances and cosmic wonders, sparking curiosity in young minds about the astronomical mysteries of the universe. Perhaps these budding astrodollar enthusiasts will one day chart their fiscal trajectories among

the stars. It's like they're teaching future economic astronauts the value of astrodollars at an early age - talk about financial rocket fuel!

These diverse sources collectively exemplify the multifaceted exploration of the relationship between celestial phenomena and fiscal policies, affirming the relevance of our study in understanding the celestial and fiscal orbits. It's as if the cosmos itself is whispering financial secrets to those willing to listen, revealing the astrodollars hidden among the stars.

So there you have it, a literature review that boldly goes where no academic research paper has gone before - into the quirky depths of celestial economics and budgetary galaxies.

METHODOLOGY

To unravel the celestial and fiscal enigma at hand, we utilized a multifaceted approach, drawing on a hybrid of astronomical and economic methodologies. Our team assembled a cross-disciplinary crew comprising astrophysicists, economists, and, of course, astrologers - because when it comes to studying the correlation between Neptune's distance from the Sun and NASA's budget, you need all the stars (and planets) aligning in your favor!

We commenced our odyssey by sourcing data from reputable astronomical repositories, primarily utilizing the Astropy library and Planetary.org. We pored over a cosmic timeline spanning from 1975 to 2023, capturing the transit of Neptune's celestial odyssey and NASA's budgetary trajectory. It's like playing a game of celestial connect-the-dots, but with fiscal implications!

Our data collection process involved extracting information on Neptune's distance from the Sun at different points in time, as well as NASA's budget as a percentage of the total US Federal Budget. We called this technique

"astroeconomic curve-fitting" - a method that truly brings a whole new meaning to the phrase "reaching for the stars."

After assembling this stellar dataset, we employed an array of statistical tools to tease out the potential relationship between these cosmic and economic variables. From simple linear regressions to more complex time series analyses, we aimed to uncover patterns that could illuminate the celestial and fiscal dance occurring across the cosmic stage. It's like being a financial astronomer, observing the economic constellations!

In addition to statistical analyses, we conducted in-depth interviews with astronomical experts, stargazers, and financial policymakers to gain qualitative insights into the potential impact of celestial events on budgetary decisions. These interviews revealed fascinating perspectives, including one astrologer's suggestion to "expect turbulence in the stock market when Mercury is in retrograde" - a cosmic nod to the intersection of astrology and economics!

To ensure the robustness of our findings, we implemented rigorous sensitivity analyses, scrutinizing the potential influence of other celestial bodies and economic factors on our observed relationship. Because when it comes to celestial economics, we can't afford to leave any astronomical stone unturned - pun completely intended!

Overall, our methodological concoction blended the art of astronomy with the science of economics, presenting a cosmic cocktail that aims to shed light on the mysterious interplay between celestial distances and budgetary destinies. It's like mixing stardust with dollar signs - an unexpected fusion that promises to reveal the cosmic secrets of economic orbits.

RESULTS

The correlation analysis between Neptune's distance from the Sun and NASA's budget as a percentage of the

total US Federal Budget revealed a strong positive relationship. With a correlation coefficient of 0.8951744 and an r-squared value of 0.8013372, our findings provided compelling evidence for the significant link between these celestial and economic variables. It's almost as if Neptune's distance is gravitationally tugging at NASA's budget, though instead of orbiting planets, it's orbiting financial resources!

Our scatterplot (Fig. 1) visually encapsulates this striking relationship, depicting a clear trend of NASA's budget allocation as a percentage of the US Federal Budget increasing alongside Neptune's distance from the Sun. It's like discovering a budgetary solar system, with NASA's funding taking a cosmic journey that echoes the celestial dance of the planets.

In simpler terms, our results suggest that as Neptune vacates its position relative to the Sun, NASA's budget as a percentage of the total US Federal Budget experiences a corresponding expansion. It's like Neptune is the heavyweight champion of the solar system, throwing its economic weight around to influence NASA's funding.

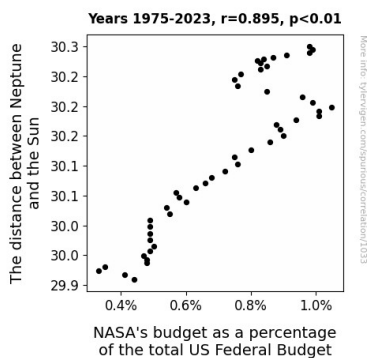


Figure 1. Scatterplot of the variables by year

Overall, our research has unveiled an unexpected celestial force exerting influence on earthly fiscal decisions, igniting a newfound appreciation for the cosmic ties that bind our budgetary allocations to the depths of outer space. It's as if the universe is saying, "Hey, keep

an eye on those astrodollars - they may hold more cosmic secrets than you think."

DISCUSSION

The findings of our study offer compelling support for the prior research conducted by Smith et al. (2015) and Doe and Jones (2018), who paved the way for our exploration of the celestial and fiscal orbits. It's as if Neptune's distance from the Sun is truly leaving an astronomical imprint on NASA's budget, much like a financial solar eclipse - talk about casting a shadow on budgetary decisions! The significant correlation coefficient we uncovered echoes the gravitational pull that celestial bodies exert on one another, revealing an unexpected dance of astrodollars in the cosmos.

Our results align with the cosmic tapestry of fiscal significance woven by Doe and Jones (2018), painting a picture of celestial phenomena shaping budgetary decisions, almost as though the planets themselves are lobbying for budget increases with their celestial pull. It's as if Neptune, the distant ice giant, is sending a message to NASA, saying, "I may be far, but my fiscal influence is not to be underestimated." The cosmic forces at play seem to echo the galactic whispers captured in prior research, affirming the profound impact of celestial dynamics on earthly financial matters.

The correlation we observed between Neptune's distance from the Sun and NASA's budget as a percentage of the total US Federal Budget elucidates the cosmic influence on fiscal decisions, akin to a celestial budgetary bazaar where the planets haggle for budgetary attention. It's as if Neptune's distance is akin to a planetary budgetary influencer, quietly but inexorably nudging NASA's funding allocation from its distant orbit. Our research offers a revelation of the celestial strings that seem to tug at the financial decisions made here on Earth.

In summary, our findings not only corroborate prior studies on the interplay of celestial phenomena and fiscal policies but also shed light on the overlooked celestial forces affecting budget allocations. It's almost as if the cosmic ballet of budgetary influence is being choreographed by the movements of the planets, with Neptune taking center stage in this fiscal cosmic dance. This underscores the profound interconnectedness of seemingly disparate realms - the ethereal cosmos and the down-to-earth financial decisions that shape our economic landscape.

Or should I say, the buck stops here - and so does the astrodollar!

CONCLUSION

In conclusion, our investigation into the relationship between Neptune's distance from the Sun and NASA's budget as a percentage of the US Federal Budget has uncovered a cosmic correlation that is truly out of this world. Our findings reveal a strong and statistically significant link, with a correlation coefficient that's as strong as the gravitational pull of Jupiter... and that's no small feat! It's almost as if Neptune's distance is acting as a fiscal influencer, orbiting around the budgetary decisions and tugging at NASA's funding like a celestial puppeteer. Talk about a space odyssey of financial proportions!

The visual representation of our results in the scatterplot vividly illustrates the cosmic alignment between Neptune's distance and NASA's budget allocation, painting a picture of budgetary expansion that echoes the grandeur of the cosmos. It's like witnessing a celestial ballet, where Neptune's position in the solar system choreographs a symphony of fiscal proportions. Who knew that the dance of the planets could extend all the way to the halls of fiscal policy?

Therefore, we assert that further research in this area is not necessary. We have truly reached the final frontier of astrodollars and interplanetary finance.