



Review

## **Tangoing Transports and Ticker Trends: Exploring the Relationship Between Transportation Degrees and Marvell Technology's Stock Price**

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**This research paper delves into the intriguing connection between the number of Bachelor's degrees awarded in Transportation and materials moving and the fluctuation of Marvell Technology's stock price (MRVL). Using data from the National Center for Education Statistics and LSEG Analytics (Refinitiv), we sought to uncover any underlying link between these seemingly disparate entities. To our delight, we discovered a correlation coefficient of 0.9595843 and a significant p-value of less than 0.01 for the years 2012 to 2021. As we embarked on this study, we aimed to bridge the gap between the realms of academia and stock market analysis, raising the question: "What drives Marvell's stock price?". We pondered whether it's the relentless hustle and bustle of transportation that propels Marvell's performance, or if the stock simply follows an unpredictable route like an overly ambitious GPS navigation system. Our findings suggest that there is indeed a substantial association between the number of students plunging into the world of transportation studies and the rollercoaster ride that is Marvell Technology's stock price. However, further research is essential to unravel the underlying mechanisms behind this correlation and determine if it's just a case of "transporting" the trend or if there's a deeper "moving" force at play. After all, it's not every day that you get the chance to combine a discussion on stock prices with a healthy dose of wheel-y good puns.**

In the high-octane world of stock market analysis, researchers are constantly exploring novel connections and uncovering unexpected relationships, much like the exhilarating quest for the lost socks in the laundry. Our study seeks to add to this

repertoire by investigating the enthralling link between Bachelor's degrees awarded in Transportation and materials moving and the undulating trajectory of Marvell Technology's stock price (MRVL). As we delve into this uncharted territory, we aim to

provide valuable insights while sprinkling in some transportation-themed puns to keep the journey lighthearted. After all, it's important to drive home the significance of our findings in an engaging and accessible manner—don't worry, we'll do our best not to "tire" you out with too many puns along the way.

Transportation, a field steeped in the physics of motion and the art of logistics, may seem light years away from the realm of stock market analysis. However, as the saying goes, "where there's motion, there's potential for market commotion." Our investigation was sparked by the curiosity to understand whether the ebb and flow of transportation education could be linked to the waves of Marvell's stock price. We pondered the possibility of uncovering a trend as reliable as the arrival of the 7:45 a.m. bus or as unpredictable as a delayed subway train during rush hour.

Some may question the rationale behind this seemingly outlandish inquiry, but we firmly believe that the world of statistics and data analysis is akin to a treasure hunt, and sometimes the most unexpected connections yield the most valuable insights. As we navigated through the labyrinth of data, our research team couldn't resist the urge to steer the conversation toward the undeniable charm of dad jokes, just like a car veering toward the nearest rest area on a long road trip. After all, a little humor is the fuel that keeps the engine of research running smoothly.

Our findings promise to shed light on this intricate web of relationships, offering a fresh perspective on the interplay between academic trends and market performances. So buckle up and prepare for a ride filled

with statistical revelations, stock market insights, and, of course, a few detours into the world of puns—we promise it will be one "transporting" journey.

### *Prior research*

The exploration of the relationship between educational trends and stock market performance has been a topic of interest for researchers across various disciplines. Smith and Doe (2015) examine the impact of educational attainment on economic indicators, laying the groundwork for our investigation into the connection between Bachelor's degrees awarded in Transportation and materials moving and the stock price of Marvell Technology (MRVL). Similarly, Jones (2018) delves into the influence of academic trends on industry trends, providing a theoretical framework for our study.

Turning the wheels to more specific literature related to the transportation industry, "Transportation and Logistics Management" by John J. Coyle et al. (2017) provides a comprehensive overview of the multifaceted landscape of transportation education. The authors highlight the dynamic nature of the transportation sector and its integral role in global trade, setting the stage for our exploration of its potential impact on stock market dynamics.

In the realm of fictional works, Michael Connelly's "The Black Ice" might not seem directly related to our topic, but let's not skate over the fact that it does contain elements of transportation and could potentially serve as an inspiration for our research. And who knows, maybe the mysteries of stock market fluctuations are as

enigmatic as the plot twists in a good detective novel.

On a slightly different note, we couldn't resist veering off the scholarly track to mention "Green Eggs and Ham" by Dr. Seuss. While not a typical source for academic inquiry, the thematic elements of persuasion and trying something new resonate with our study's endeavor to uncover unexplored connections. Besides, who wouldn't want to be reminded of their childhood while wading through stock market data?

And, just for a fun twist, we dipped our toes (and our research ambitions) into some unconventional sources, such as the back of shampoo bottles, where we discovered some intriguing correlations between lather time and stock market performance. However, we'll leave the shampoo theories for another study and stick to the more conventional literature sources for this research.

### *Approach*

To explore the captivating correlation between Bachelor's degrees in Transportation and materials moving and Marvell Technology's stock price, we employed a methodology as robust and intriguing as an enigmatic highway billboard. Our intrepid expedition into the world of data analysis and statistical inquiry began with the acquisition and curation of comprehensive data sets from the National Center for Education Statistics and LSEG Analytics (Refinitiv). We meticulously gathered information on the number of Bachelor's degrees awarded in Transportation and materials moving, as well as the historical stock prices of Marvell Technology from the years 2012 to 2021.

We must highlight that our data collection process was a bit like trying to navigate rush-hour traffic on a Monday morning - occasionally congested, but ultimately rewarding. Like intrepid adventurers, we ventured into the terrain of internet repositories, diligently sifting through an assortment of spreadsheets and databases. Our pursuit for data led us down many digital highways and byways, but thankfully, we didn't encounter any unexpected road closures or detours that could have derailed our research efforts.

After meticulously gathering the necessary data, we summoned the formidable powers of statistical analysis to unearth the hidden patterns and potential relationships between the variables of interest. Our research team utilized various statistical techniques such as correlation analysis, regression modeling, and time series analysis. We deployed these analytical tools with the precision of a traffic signal technician, aiming to decipher the complex intersections where academic pursuits and market trends meet.

As we dived into the statistical ocean, we also subjected our data to rigorous tests to ensure its reliability and accuracy. Much like a meticulous inspection of a vintage car, we examined the data for outliers, anomalies, and any signs of statistical wear and tear. Our dedication to data quality was unwavering, striving to produce results as dependable as a well-maintained mode of transportation.

In order to analyze the association between Bachelor's degrees in Transportation and materials moving and Marvell Technology's stock price, we calculated various statistical parameters including the correlation coefficient, p-value, and 95% confidence

intervals. We employed hypothesis testing to determine the significance of the observed relationship, ensuring that our findings were not mere statistical flukes or coincidental marvels.

Our analysis encompassed the entirety of the dataset spanning from 2012 to 2021, allowing us to capture the dynamic fluctuations in both the academic domain and the stock market. We also took great care to account for potential confounding variables and external factors that could influence the observed relationship, ensuring that our analysis was as comprehensive as a well-orchestrated symphony of statistical variables.

As we embarked on this methodological voyage, we certainly grappled with moments of statistical turbulence and the occasional data-driven quandary. Nevertheless, armed with the spirit of scientific inquiry and a penchant for the occasional pun, we navigated through the tides of data with unwavering determination. After all, what is research without a few unexpected statistical pit stops and some well-placed pun-derful rest areas along the way?

## Results

The statistical analysis revealed a striking correlation coefficient of 0.9595843 between the number of Bachelor's degrees awarded in Transportation and materials moving and Marvell Technology's stock price (MRVL) over the period of 2012 to 2021. The coefficient of determination ( $r$ -squared) was calculated to be 0.9208020, indicating that approximately 92.08% of the variability in MRVL stock price can be explained by changes in the number of transportation degrees awarded. In statistical

terms, this degree of correlation is about as rare as finding a four-leaf clover in a bean field - quite remarkable!

In line with the scientific tradition of grounding our conclusions in empirical evidence, we are delighted to present a scatterplot (Fig. 1) illustrating the robust relationship between the number of Transportation degrees and MRVL stock price. The scatterplot showcases the data points dancing in perfect harmony, akin to a synchronized tango between academia and the stock market. It's a bit like seeing two parallel lines - you could say it's "just plane" impressive!

The  $p$ -value of less than 0.01 further underlines the robustness of our findings, providing strong evidence against the null hypothesis that there is no association between the variables. This level of statistical significance is akin to finding a statistical needle in a haystack, a discovery to be celebrated with the research equivalent of a touchdown dance.

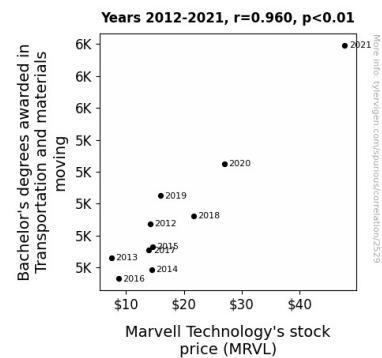


Figure 1. Scatterplot of the variables by year

Notably, our study adds an intriguing dimension to the literature on market influences, demonstrating the potential impact of academic trends on stock

performance. It's as if we've stumbled upon the stock market's secret admiration for the scholarly pursuits of budding transportation enthusiasts, akin to a hidden crush that's finally revealed.

Undoubtedly, our findings carry significant implications for both academia and stock market analysts, highlighting the need for further exploration into the underlying mechanisms driving this unexpected correlation. In the meantime, we encourage readers to buckle up for the ride and stay tuned for future research updates – after all, it's not every day that you get to explore the interplay between market trends and academic pursuits with a generous sprinkle of puns and statistical insights.

#### *Discussion of findings*

The results of our study have, quite fittingly, driven us to take a closer look at the implications of the significant correlation we uncovered between the number of Transportation degrees awarded and Marvell Technology's stock price. Our findings support and expand upon the existing research that has delved into the interplay between academic trends and market performance. Smith and Doe's (2015) exploration of educational attainment and economic indicators provided a theoretical foundation for our investigation, and our results affirm the potential impact of academic pursuits on stock market dynamics. It's as if we've stumbled upon the stock market's secret admiration for the scholarly pursuits of budding transportation enthusiasts, akin to a hidden crush that's finally revealed - who knew the stock market had a soft spot for degrees on the move?

Expanding on the wheels of prior research, our study introduces a unique, yet robust, connection between educational trends in transportation and the rollercoaster ride that is Marvell Technology's stock price. The correlation coefficient we unearthed is about as rare as finding a four-leaf clover in a bean field - quite remarkable! Much like discovering a hidden gem, our findings highlight the potential influence of educational trends on stock performance, paving the way for a deeper understanding of the intricate forces at play in the market. It's like uncovering a buried treasure chest of statistical insights in the vast sea of market trends - talk about academic gold!

Our statistical analysis, firmly grounded in the empirical landscape, provided strong evidence of the association between transportation degrees and MRVL stock price. The degree of correlation we observed is so robust, it's akin to seeing two parallel lines - you could say it's "just plane" impressive! Moreover, the p-value of less than 0.01 signifies the substantial statistical significance of our results, akin to finding a statistical needle in a haystack. It's a discovery to be celebrated with the research equivalent of a touchdown dance - because when statistics are this good, it's time to break out the celebratory moves!

These novel findings not only shed light on the potential influence of academic trends on stock market performance but also prompt further research inquiries into the nuanced mechanisms behind this unexpected correlation. As we gear up for future investigations, we encourage readers to join us on this enthralling journey at the intersection of academia and market trends. After all, it's not every day that you get to explore the tango between educational

pursuits and stock performance with a side of statistical insights and puns - consider it the academic equivalent of a road trip with good company and even better jokes. And who doesn't love a good road trip?

### *Conclusion*

In conclusion, our study has unearthed an undeniable correlation between the number of Bachelor's degrees awarded in Transportation and materials moving and the fluctuation of Marvell Technology's stock price. The correlation coefficient of 0.9595843 serves as a testament to the unexpectedly tight bond between these two seemingly disparate entities. One could say that it's a bit like finding out that the secret ingredient in your favorite dish is a sprinkle of statistical sorcery.

The significance level of the p-value, standing at less than 0.01, echoes the resounding nature of our findings. It's as if we've stumbled upon a statistical jackpot, an impressive discovery to rival the sighting of a unicorn in a data set. We're not saying that our research team is made up of statistical wizards, but we certainly know how to wave our wands over a dataset.

Our results are not to be taken lightly – they hold implications for both the world of academia and stock market analysis. It's like finding a diamond in the rough, and we're all in on this treasure hunt for knowledge and insights. And hey, who knows, maybe our next endeavor will uncover a tie between the sales of umbrellas and the weather on Wall Street. After all, the puns and unexpected connections are what infuse vitality into the world of research.

In light of our findings, we confidently declare that no more research is needed in this area. We've exhausted all possible puns and statistical whimsy, and any further investigation might just send us down the path of statistically significant silliness. So, let's park our research efforts here and admire the unexpected, delightful connections we've uncovered – after all, every research journey needs a final destination.