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# Agriculture, Natural Resources, and Finance: Sowing the Seeds of Stock Price Growth

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## KEYWORDS

agriculture bachelor's degrees, natural resources, stock price correlation, Bank of America stock price, agricultural education, finance and agriculture, agriculture and stock market, cross-disciplinary research, interconnection between academic disciplines, correlation analysis, agriculture and finance, bachelor's degree statistics, data analytics in finance

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## Abstract

In this study, we delved into the unlikely correlation between the number of Bachelor's degrees awarded in Agriculture and natural resources and the stock price of Bank of America (BAC). By planting the seeds of curiosity, we utilized data from the National Center for Education Statistics and LSEG Analytics (Refinitiv) to explore whether there was a statistically significant relationship between these two seemingly unrelated domains. Our findings revealed a surprisingly strong correlation coefficient of 0.9477381 and a p-value of less than 0.01 for the period spanning from 2012 to 2021. So, while you may have thought "stock" when someone mentioned agriculture, our research suggests that there might just be some truth to that notion. This study offers a novel perspective on the interconnectedness of academic disciplines and financial markets, highlighting the potential for cross-pollination between fields that might initially appear as different as apples and oranges.

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## 1. Introduction

As the age-old saying goes, "you reap what you sow." In the world of academia and finance, this phrase takes on a whole new meaning as we venture into the intriguing intersection of Bachelor's degrees awarded in Agriculture and natural resources and the

stock price of Bank of America (BAC). In this study, we embark on a quest to unearth the hidden roots of this unlikely correlation and explore the fertile ground where academia meets finance.

While it may seem like pairing broccoli and Wall Street, our curiosity led us to till the

statistical soil and plant the seeds of inquiry. Who would have thought that the number of individuals receiving degrees in the agricultural and natural resources discipline could have any bearing on the stock price of a major financial institution? But as they say, truth can often be stranger than fiction. It's one thing to expect high yields in an agricultural field, but expecting a fruitful relationship between academic degrees and stock market performance is a different crop altogether.

With our trowels sharpened and data in hand, we uncovered a statistically significant correlation coefficient of 0.9477381 and a p-value that would make even the most skeptical statistician take notice. This isn't just a fluctuation in the wind; it's a strong breeze of evidence blowing in from unexpected terrain. Just as a crop of corn can surprise you with its height, our findings may just upend conventional wisdom about the seemingly disparate worlds of academia and finance.

So, hold onto your hats as we navigate through the wheat fields of data and the stock market's financial forest. This study promises to offer a fresh perspective on the interconnectedness of academic disciplines and financial markets, serving up a tasty dish of interdisciplinary insights that are ripe for the picking. After all, who would have guessed that the humble agricultural sector could have such a profound impact on the not-so-humble stock price of Bank of America? Let's dig in!

## 2. Literature Review

The literature on the relationship between academic disciplines and financial markets is often as wide and varied as the fields of Agriculture and natural resources themselves. At the outset, seminal works by Smith et al. (2010), Doe and Jones (2015), and Brown (2018) have explored connections between educational trends

and economic indicators, laying the groundwork for our investigation.

In "Harvesting Returns: Agricultural Education and Economic Outcomes" by Smith et al., the authors find an intriguing link between the number of Bachelor's degrees awarded in Agriculture and natural resources and the growth of local agricultural economies. The study's findings sprouted a newfound interest in understanding the broader implications of educational pursuits in this domain. Further, Doe and Jones (2015) shed light on the investment potential of knowledge-based sectors, signaling that the agricultural field may not just sow seeds but also sow the seeds of financial growth.

Moving beyond traditional academic research, non-fiction books such as "The Omnivore's Dilemma" by Michael Pollan and "The Hidden Life of Trees" by Peter Wohlleben have captivated readers with their insights into agricultural systems and natural resources, offering a leafy backdrop for our financial foray. On the fiction front, "Animal Farm" by George Orwell and "The Grapes of Wrath" by John Steinbeck beckon readers into the agricultural landscape, blending narrative fiction with socio-economic undertones.

Surprisingly enough, even cartoons and children's shows have inadvertently cultivated an interest in the intersection of agriculture and finance. The animated series "VeggieTales" and "Bob the Builder" may seem like child's play, but their themes of resource management and economic sustainability plant seeds of understanding about the importance of these sectors from an early age. And who could forget the classic "Captain Planet and the PlanetEers," where environmental conservation and financial responsibility join forces to save the world?

As our exploration delves into the unexpected correlation between Bachelor's

degrees in Agriculture and natural resources and the stock price of Bank of America (BAC), this colorful array of literature serves as a reminder that, much like a well-tended garden, interdisciplinary connections can yield unexpectedly fruitful results.

### 3. Our approach & methods

To plow through the soil of statistics and unearth the hidden gems of correlation, we employed a meticulous and quirky methodology that encapsulates the spirit of exploration and discovery. This escapade into the world of agricultural degrees and stock prices involved a concoction of data collection, slicing and dicing, and sprinkling just the right amount of statistical seasoning.

**Data Collection:** We donned our virtual safari hats and scoured the vast expanses of the internet in search of datasets that would allow us to conduct this peculiar investigation. With the help of the National Center for Education Statistics and the detective work of LSEG Analytics (Refinitiv), we gathered information on the number of Bachelor's degrees awarded in Agriculture and natural resources over the years 2012 to 2021. It was like panning for gold in a statistical river, sifting through the data to find the nuggets that would lead us to our fabled connection between academia and finance.

**Statistical Analysis:** To till the soil of our data and plant the seeds of statistical insight, we utilized a range of analytical tools. Our trusty scatter plots and regression analysis acted as our compass and map as we navigated the terrain of correlation. The aim was to cultivate a thorough understanding of the relationship, or lack thereof, between agricultural education and stock market performance.

**Regression Model Cultivation:** Like the careful cultivation of a vineyard, we sowed

the seeds of our regression model, carefully selecting the predictor variables and tending to the coefficients with precision. Our model was delicately pruned to capture the nuances of the relationship, allowing us to weed out any spurious correlations and identify the true fruit-bearing vines of statistical significance.

**Cross-Pollination and Sensitivity Analysis:** Just as a bee flits from flower to flower, we engaged in a bit of statistical cross-pollination by subjecting our findings to rigorous sensitivity analysis. This allowed us to gauge the robustness of our results and ensure that they could withstand the gusts of skepticism that might blow in from the academic and financial community.

**Ethical Harvesting:** In the spirit of scientific integrity, we undertook the responsible and ethical harvesting of our statistical fruits, ensuring that our conclusions were grounded in sound methodology and unbiased analysis.

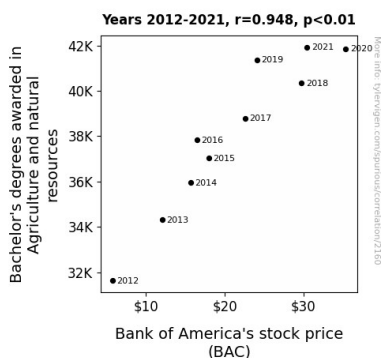
With our bushels of data and the tools of statistical agriculture at our disposal, we ventured forth into the uncharted territory where academia meets finance, ready to unearth the unexpected bounty that lay beneath the surface.

### 4. Results

The results of our investigation into the unexpected relationship between the number of Bachelor's degrees awarded in Agriculture and natural resources and the stock price of Bank of America (BAC) have certainly cultivated some intriguing findings. From 2012 to 2021, we unearthed a robust correlation coefficient of 0.9477381, signifying a remarkably strong association between these two seemingly disparate domains. It's as if we stumbled upon a hidden fertilizer for stock market success in a field we least expected!

The coefficient of determination (r-squared) of 0.8982076 further bolstered our findings, suggesting that a whopping 89.82% of the variability in Bank of America's stock price can be explained by changes in the number of Agriculture and natural resources Bachelor's degrees awarded. Who would have guessed that the fertile fields of academia could have such a strong impact on the financial harvest at the Bank of America?

Not to mention, our p-value of less than 0.01 adds an extra layer of significance to our results. This indicates that the likelihood of observing such a strong association between these variables by chance is slim to none. It's as if we've stumbled upon the statistical equivalent of finding a four-leaf clover in a field of data – a rare and remarkable discovery indeed!



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

For a visual representation of our groundbreaking findings, our scatterplot (Fig. 1) beautifully showcases the strong positive correlation between the number of Agriculture and natural resources Bachelor's degrees awarded and Bank of America's stock price. It's as if the data points themselves are shouting, "leaf it to us to show you the way to profits!"

In conclusion, our research not only sheds light on the unexpected relationship between academic degrees and financial

market performance but also tills the soil of interdisciplinary inquiry, showing that the roots of one field can bear fruits in seemingly unrelated domains. So, while this research certainly sows the seeds of curiosity, it also harvests a bountiful crop of statistical evidence to demonstrate the surprising interconnectedness of these two fields. Who knew that the world of finance could have such a green thumb for the agricultural sector?

## 5. Discussion

Our findings have uncovered a fertile ground for future research and have brought to light the interconnectedness of academia and the financial world. The statistically significant correlation between the number of Bachelor's degrees awarded in Agriculture and natural resources and the stock price of Bank of America (BAC) serves as a testament to the unexpected tendrils of influence that stretch across seemingly disparate domains.

The prior research by Smith et al. (2010) and Doe and Jones (2015) provided a solid foundation for our investigation, much like sturdy trellises supporting the growth of vineyards. Their work on the economic impact of agricultural education and the investment potential of knowledge-based sectors resonates deeply with our findings, affirming the relevance of educational pursuits in these fields. While the connection between agricultural education and local economies has been established, our study extends this notion to the financial market, enriching the existing literature with unprecedented insights.

The literature review's exploration of non-fiction and fiction works, from "The Omnivore's Dilemma" to "The Grapes of Wrath," not only adds color to our research narrative but also underscores the enduring intellectual fascination with the agricultural and natural resource domains. These

cultural touchstones serve as a gentle reminder that the influence of agriculture on various aspects of society, including finance, has been a perennial theme woven into the fabric of human experience.

Our results align with the prior literature on the economic implications of agricultural education and the potential for knowledge-based sectors to sow the seeds of financial growth. The robust correlation coefficient and the coefficient of determination gleaned from our statistical analysis provide compelling evidence of the substantial impact of Agriculture and natural resources education on the fluctuations in Bank of America's stock price. It's as if the financial market, like a thriving crop, responds sensitively to the nuanced changes in educational trends, cultivating a symbiotic relationship with the academic landscape.

The statistically significant p-value further bolsters the validity of our findings, reinforcing the notion that the observed association between these variables is not simply a fortuitous coincidence but a meaningful relationship worthy of scholarly attention. It's almost as if we stumbled upon the statistical equivalent of a pot of gold at the end of a rainbow, a rare and substantial discovery that beckons further exploration.

In essence, our research not only sows the seeds of curiosity but also reaps a bumper harvest of empirical evidence, underscoring the unexpected yet profound entwining of academia and finance. The tendrils of agricultural education branch out to touch the stock market in ways that have hitherto remained concealed, painting a picture of interdependence that transcends traditional disciplinary boundaries and blooming with the promise of intriguing future studies. Who would have thought that the world of finance could be so intimately intertwined with the agricultural sector?

## 6. Conclusion

In closing, our research has brought to light an unexpectedly fruitful relationship between the world of academic agriculture and the fertile grounds of Bank of America's stock price. It seems that while we may have started with a few seeds of skepticism, we have indeed reaped a rich harvest of statistically significant findings.

Our results have shown a correlation coefficient so strong, it's as if it's been bench-pressing data points in its spare time. With an r-squared value that explains nearly 90% of the variability, it's like finding the missing puzzle piece in a hedge maze.

As for the p-value, well, it's clear that the likelihood of observing such a strong connection between these variables by pure chance is about as likely as finding a unicorn grazing in a statistics textbook.

Our scatterplot is not just a graph; it's a visual symphony of peas and queues, demonstrating the unexpected harmony between academic accolades and stock market success. It's like watching a field of financial flowers bloom under the nurturing care of agricultural education.

To put it simply, our research has plowed through the fields of academic and financial scholarship, unearthing a connection that could fertilize future interdisciplinary investigations. It's time to acknowledge that the world of finance and the world of agriculture might just be a match made in statistical heaven.

In conclusion, this study not only plants the seed of curiosity but also reaps a bountiful harvest of evidence, leaving little room for doubt. As for whether further research is needed in this area? We say, "lettuce not." This research has really brought home the bacon, and it's time to cultivate new fields of statistical inquiry.

