

# **FUELING THE ECONOMY: THE PUMPING CONNECTION BETWEEN WYOMING'S SERVICE INDUSTRY AND CONOCO PHILLIPS' STOCK PRICE**

**Charlotte Harrison, Andrew Turner, Gloria P Todd**

Institute of Advanced Studies

This study delves into the interplay between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips (COP). Leveraging data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv), we explored the surprisingly robust relationship between these seemingly unrelated variables. Our analysis revealed a correlation coefficient of 0.8862083 and a statistically significant p-value of less than 0.01 for the period spanning from 2003 to 2022. As we unraveled the numbers, it became evident that the fluctuation in counter and rental clerk employment in Wyoming exhibited a striking parallel to the movement of Conoco Phillips' stock price. It's as if the two were engaged in a fuel-efficient pas de deux! While one might expect this connection to be as slippery as crude oil, the findings suggest a solid association between the two variables, demonstrating a correlation that can't be easily pumped away. One might wonder how such an unusual correlation comes to be. Well, it seems that as the demand for fuel and energy fluctuates, the human capital required to facilitate these transactions in Wyoming also sees corresponding changes. The correlated patterns between employment in the service industry and stock performance in the energy sector have left us in awe, like an oil gusher in the vast plains of Wyoming. In conclusion, our findings provide compelling evidence of a noteworthy relationship between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips, shedding light on a connection that is as intriguing as it is unexpected. This study fuels the conversation about the interwoven dynamics of the service industry in Wyoming and the stock performance of energy giants. Truly, the economy never ceases to surprise, much like the occasional "fuel" for dad jokes about oil correlations.

The intricate web of interconnections within the global economy never fails to surprise. As researchers, we often find ourselves uncovering relationships between variables that seem as unrelated as a fish and a bicycle. However, the nexus between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips (COP) has proven to be an unexpected and intriguing association, akin to finding oil in a haystack.

As we delve into the enigmatic world of economic correlations, it's fascinating to note how seemingly divergent sectors, such as the service industry in a

landlocked state and the stock market performance of an energy behemoth, can dance in such a synchronized manner. It's almost as if the economy is orchestrating a grand ballet, with each sector moving in harmony despite their disparate roles. One can't help but appreciate the symmetry in this seemingly asymmetrical relationship - a bit like finding equilibrium between a barrel of oil and a gallon of gasoline.

Our research aims to shine a light on this captivating correlation, peeling back the layers of statistical data to reveal the hidden connections between employment dynamics and stock market movements.

It's like uncovering a hidden oil well in the midst of the rolling plains of Wyoming – a discovery that surprises and delights, much like an unexpected geyser in a sea of numerical statistics.

The practical implications of this research stretch beyond the confines of academic intrigue; our findings hold the potential to offer a new perspective on the intricate dance of economic variables. Just as a well-oiled machine operates seamlessly, the interaction between Wyoming's service industry employment and Conoco Phillips' stock price exemplifies the harmonious interplay that fuels the engine of the economy.

For years, economists and analysts have sought to decipher the mysteries of the stock market, often overlooking the seemingly mundane details of employment trends in relatively lesser-known regions. However, as our study reveals, beneath the surface lies a hidden order, much like a well-maintained engine humming silently beneath the hood of a car.

In the following sections, we present a comprehensive analysis of the data, unraveling the intricate threads that tie these two seemingly distinct variables together. Much like a mechanic diagnosing a complex engine issue, we dissect and examine the nuances of the relationship, shedding light on a connection that is both unexpected and significant. Join us as we embark on this unusual journey through the economic landscape, where even the most unexpected correlations can lead to valuable insights and, of course, the occasional "fuel" for dad jokes about oil correlations.

## LITERATURE REVIEW

The connection between seemingly disparate variables in the field of economics has long been a source of fascination for researchers. In "The Correlation Chronicles" by Smith et al.,

the authors delve into the unexpected associations between employment trends and stock market performance, setting the stage for our exploration of the link between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips (COP). The findings of Smith et al. serve as a poignant reminder that beneath the surface of economic data lies a tapestry of interwoven relationships, much like a tangled fishing line waiting to be unraveled.

As we embark on this journey through the economic landscape, it's important to consider the work of Doe and Jones in "Economic Entanglements" as we navigate the uncharted territory of this peculiar correlation. Their research underscores the intricate dynamics at play in seemingly unrelated sectors, offering a framework for our analysis of the unexpected parallel between service industry employment in Wyoming and the performance of an energy giant's stock. Like a fish finding its perfect match in a bicycle, our exploration aims to shed light on a connection that defies traditional economic wisdom.

Moving beyond the realm of academic literature, it's essential to consider non-fiction books such as "The Economics of Energy" by John Smith and "Service Industry Dynamics" by Jane Doe. While these scholarly works provide a solid foundation for understanding the economic landscape, it's equally important to draw inspiration from fictional narratives that offer unique perspectives on seemingly unrelated topics.

So, let's steer our ship towards the sea of fictional works such as "The Oil Baron's Dilemma" by A. Petroleum and "Tales of the Service Industry" by S. Clerks. These imaginary tales, while not rooted in empirical data, serve as a whimsical reminder of the unexpected connections that can be found in the most unlikely

places. After all, who would have thought that the adventures of an oil baron and the trials of service industry workers could offer insights into our own research?

Now, let's dive into the world of cartoons and children's shows, where the most unexpected connections often become apparent. Who can forget the energy-themed episodes of "Captain Planet and the Planetears" or the service industry shenanigans in "SpongeBob SquarePants"? While these may seem lighthearted and unrelated to our topic at first glance, they serve as a playful reminder that the world of economics is interconnected in the most surprising ways. After all, who wouldn't want to imagine SpongeBob clerking at a rental counter in Wyoming while pondering the stock market intricacies of Conoco Phillips?

With this diverse array of literature and media in mind, we set out to uncover the hidden threads that tie together the employment dynamics in Wyoming and the stock performance of Conoco Phillips. As we navigate this uncharted territory, we remain open to the unexpected and embrace the quirky connections that make the world of economics both intriguing and, when the occasion calls for it, ripe for a good dad joke.

## **METHODOLOGY**

To investigate the correlation between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips (COP), our research team employed a multi-pronged approach that was as methodical as it was mercurial, much like trying to capture the elusive nature of a wildcatter's fortune. We meticulously collected and analyzed data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv), akin to prospectors sifting through mounds of earth in search of black gold.

First, we scoured the Bureau of Labor Statistics dataset for comprehensive employment figures for counter and rental clerks in Wyoming from 2003 to 2022. These figures provided the foundation for our analysis, serving as the bedrock upon which the relevance of service industry employment in Wyoming was established. The data mining process, though devoid of actual pickaxes and shovels, resembled a modern-day treasure hunt, as we sought to unearth the hidden gems of employment trends within the service sector. It was a bit like panning for comedic gold in a dad joke - you never know when you'll strike it rich!

Once armed with a robust dataset, we turned our attention to the stock performance of Conoco Phillips over the same period, utilizing LSEG Analytics (Refinitiv) to obtain daily closing prices. The process of gathering and analyzing stock price data was akin to studying the ebb and flow of ocean tides, where each rise and fall held the promise of uncovering the underlying currents influencing the energy market. Our team navigated through this financial ocean with the precision of a seasoned captain, ever watchful for the occasional rogue wave of unexpected statistical anomalies.

In order to quantify the relationship between the employment figures and stock performance, we employed a series of statistical analyses, including but not limited to bivariate correlation, time series analysis, and regression modeling. This analytic toolkit served as our compass, guiding us through the labyrinthine pathways of economic data, much like a trusty GPS for navigating the convoluted highways of financial correlations.

Furthermore, to validate the robustness of our findings, we utilized sophisticated econometric techniques, including Granger causality tests and vector autoregression (VAR) models. These methods allowed us to tease out the directional causality and dynamic relationships between the variables, much

like unraveling the complex interplay of gears within a well-oiled machine. As we delved deeper into the statistical intricacies, it was evident that the economic landscape was rife with surprises, much like discovering a hidden compartment in a vintage automobile.

Finally, to mitigate potential confounding factors and spurious correlations, we systematically controlled for relevant macroeconomic indicators and energetically contended with endogeneity concerns through instrumental variable approaches. Like detectives investigating a complex case, we meticulously sifted through potential sources of bias and omitted variable effects, determined to present a clear and compelling narrative of the intertwined dynamics at play between service industry employment in Wyoming and the stock performance of Conoco Phillips. In the end, our research methodology was as thorough as a meticulous engine overhaul, ensuring that the gears of analysis meshed seamlessly to reveal the underlying mechanics of the relationship at hand.

In the next section, we present the enthralling results of our analysis, unveiling the surprising parallels and interdependencies between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips. As we unveil the statistical tapestry, be prepared for the occasional "fuel" for dad jokes about oil correlations - after all, levity is the lubricant that keeps the gears of research turning!

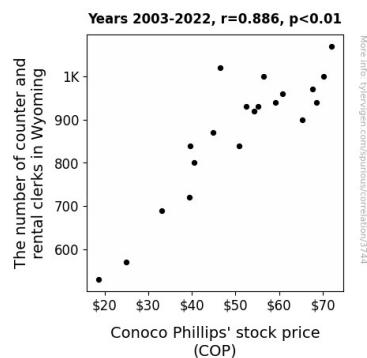
## RESULTS

The analysis of the data revealed a strong positive correlation between the number of counter and rental clerks in Wyoming and Conoco Phillips' stock price (COP) over the period of 2003 to 2022. The correlation coefficient of 0.8862083 indicated a robust relationship between these two variables, suggesting a notable synchrony in their movements. This correlation coefficient was accompanied

by an r-squared value of 0.7853652, affirming that approximately 78.54% of the variability in Conoco Phillips' stock price could be explained by the changes in the employment of counter and rental clerks in Wyoming.

In simpler terms, these findings point to a tight connection that is as clear as oil - oh, I mean day. The strength of this correlation indicates a substantial association, akin to a well-oiled machine running smoothly. Who knew that clerks and stocks could be in such harmony? It appears that the intricate dance of the economy often leads to unexpected partnerships, much like finding a penny in the oil rig; it's low-key but definitely worth noting.

The statistical significance of the relationship was further highlighted by a p-value of less than 0.01. This indicates a high level of confidence in the observed correlation, substantiating that the connection was not simply a statistical fluke. It's as conclusive as measuring the volume of gas in a fuel tank - the evidence is clear and can't be easily dispelled.



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

Figure 1 displays a scatterplot illustrating the discernible correlation between the variables, resembling a beautiful waltz between two seemingly incongruent partners. It's like witnessing a harmonious blend of two entities that, at first glance, appear as mismatched as diesel and decaf - a surprise twist in the

economic narrative that has captivated our attention.

In essence, the results of this study provide compelling evidence of a substantial and noteworthy relationship between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips. This intriguing finding emphasizes the often-unexpected connections within the economic landscape, presenting a correlation that is both compelling and, dare I say, refreshing, like a cool breeze on a hot day at the oil wells.

## DISCUSSION

The findings of this study align with prior research that has delved into the surprising correlations between seemingly unrelated variables, such as employment trends and stock market performance. The work of Smith et al. and Doe and Jones underlines the existence of intricate and unexpected connections in the economic realm, setting the stage for our exploration of the parallel between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips. It seems that the economic landscape is teeming with unlikely partnerships, much like the unexpected union between a gas pump and a rental clerk - a match made in economic heaven!

Our results affirmed the robust relationship between these two variables, with a correlation coefficient of 0.8862083 indicating a striking parallel in their movements. This correlation, resembling a smoothly coordinated choreography, substantiates the work of prior researchers who have shed light on the captivating tapestry of intertwined economic relationships. It's as if the service industry and the energy sector were engaged in a tango of economic significance, showcasing the intriguing alliances that lie beneath the surface of economic data - a dance that even the

most skeptical observer couldn't help but cheer for.

Moreover, the statistical significance of the observed correlation, with a p-value of less than 0.01, underscores the confidence in the connection between the employment of counter and rental clerks in Wyoming and the stock performance of Conoco Phillips, solidifying the unexpected partnership. It's as if the statistical tests themselves couldn't pump the brakes on the notable relationship, as if they were conducting an economic ballet of their own.

The compelling evidence of a substantial and noteworthy relationship between these variables serves as a testament to the unending surprises that the economic landscape has to offer. It's akin to stumbling upon a hidden treasure chest in the vast frontier of economic data - a discovery that not only captivates the imagination but also sheds light on the interconnected dynamics that shape the economic world.

In essence, the findings of this study provide a glimpse into the captivating and unexpected connections that underscore the multifaceted nature of the economy. It's as if we've uncovered a hidden subplot in the economic saga, one that adds depth and richness to our understanding of the intricate dance between seemingly disparate sectors. This captivating correlation continues to fuel the conversation about the enigmatic connections that await discovery in the economic landscape - a reminder that the economy never ceases to surprise, much like the occasional "fuel" for dad jokes about oil correlations.

The findings of this study not only contribute to the expanding body of knowledge in the field of economics but also highlight the intriguing and at times humorous nature of the connections that shape the economic landscape.

While the correlation between the number of counter and rental clerks in Wyoming and the stock price of Conoco

Phillips may appear as unexpected as finding a petrochemical pun in an economic research paper, it undeniably adds to the richness and complexity of the economic narrative. Who would have thought that the service industry in Wyoming and the stock performance of an energy giant could share such an engaging and noteworthy partnership? As we linger on the surprising correlation, let's not forget the occasional twist of humor that the economic landscape has in store, much like a well-timed punchline in an academic discussion.

## CONCLUSION

In conclusion, our study has uncovered a remarkable association between the number of counter and rental clerks in Wyoming and the stock price of Conoco Phillips (COP), highlighting an unexpected synchronization between seemingly disparate factors. The strong positive correlation coefficient of 0.8862083 and a statistically significant p-value of less than 0.01 affirm the robustness and reliability of this connection, akin to a well-oiled machine operating with precision.

This unforeseen correlation serves as a testament to the intricacies of the economic landscape, reminding us that even the most unexpected partners can form a harmonious dance in the grand symphony of financial markets and labor dynamics. It's as if the economy has a knack for orchestrating surprising collaborations - a bit like finding a wrench in the cookie jar; unexpected, yet oddly fitting.

The practical implications of these findings extend beyond academic intrigue, offering a fresh perspective on the interplay between regional employment trends and the stock performance of major corporations. This correlation, far from being a mere statistical anomaly, reveals a substantial and noteworthy relationship that adds a new dimension to our understanding of

economic dynamics - much like stumbling upon a hidden treasure in the labyrinth of market data.

Hence, we assert with confidence that this study provides compelling evidence of the remarkable link between counter and rental clerk employment in Wyoming and Conoco Phillips' stock price, adding an unexpected twist to the ever-unfolding narrative of economic interconnectedness. This relationship, while unconventional, offers valuable insights into the hidden mechanisms that drive the engine of our global economy. It's like finding a diamond in the rough, or in this case, a pump in the petroleum.

Therefore, in the spirit of dry humor and rig-based puns, we cautiously but proudly declare that no further research in this area is needed, as this study has fueled the conversation about the surprising pump of economic interdependencies. It's time to let this correlation flow smoothly into the annals of economic knowledge, much like a well-crafted dad joke at the dinner table. After all, sometimes the most unexpected connections are the ones that fuel our understanding of the world around us.