



## Review

# The Mila Kunis Effect: A Reel Connection to Stock Reel-itivity

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**This study sets out to investigate the potential link between the number of movies featuring actress Mila Kunis and the stock price of POSCO Holdings (PKX). Leveraging data from The Movie DB and LSEG Analytics (Refinitiv), a time series analysis covering the period from 2002 to 2022 was conducted. The study revealed a striking correlation coefficient of 0.8461507 and a statistically significant p-value of less than 0.01, indicating a strong relationship between the two variables. The results of this research suggest that the presence of Mila Kunis in a greater number of films corresponds to an increase in the stock price of POSCO Holdings. These findings not only provide insight into the potential impact of individual celebrities on financial markets, but also raise questions about the influence of pop culture on investment behavior. Moreover, they add a lighthearted twist to the world of stock market analysis, prompting us to ponder the "Kunis Quotient" and its comedic or causal effect. A relevant dad joke to contemplate: "Why did the stock trader have Mila Kunis on speed dial? Because her movies always lead to a 'stock-ing' stuffer!" The implications of this research extend beyond the realm of traditional financial analysis, challenging us to consider the interplay between entertainment, celebrity influence, and market dynamics.**

The relationship between celebrity presence in the media and consumer behavior has been a topic of interest for both scholars and stock traders alike. As the world of finance delves deeper into the realms of pop culture and entertainment, a comedic twist of fate has led us to explore the intriguing connection between the number of movies in which actress Mila Kunis has appeared and the stock price of POSCO Holdings (PKX).

One might even say this research calls for a "Pun-dit" of a different sort.

This unconventional association has sparked curiosity and humor in equal measure among the academic and financial communities. The Mila Kunis Effect, as we've affectionately termed it, aims not only to analyze the statistical correlation between these two seemingly disparate variables but also to shed light on the whimsical and

unexpected turns that can influence investment trends.

Interestingly, the correlation uncovered between Mila Kunis' cinematic presence and the stock price of POSCO Holdings unveils a narrative fit for the silver screen. It's almost as if we've stumbled upon the "Mila-ion dollar question" in the world of stock market unpredictability.

As such, this study seeks to provide a lighthearted but rigorous evaluation of the potential impact of Mila Kunis' filmography on the financial market, challenging traditional notions of market analysis and offering a fresh perspective on the intersection of celebrity, entertainment, and investor sentiment. In a sense, it's a scholarly investigation with a side of showbiz glitz—a truly "reel" connection in the world of stock "reel"-itivity.

#### *Prior research*

The literature encompassing the potential influence of celebrity presence on financial markets is extensive, bearing witness to the ongoing fascination with the intersection of popular culture and investment trends. In "Smith et al. (2015)," the authors find a significant relationship between celebrity endorsements and consumer purchasing behaviors, shedding light on the persuasive impact of well-known personalities in the realm of commerce. This resonates in a manner akin to a Mila Kunis movie marathon, with each appearance serving as a compelling endorsement for the films in which she stars.

In "Doe and Jones (2019)," the researchers delve into the realm of behavioral economics, uncovering the nuanced ways in

which individual celebrity appeal can sway consumer sentiment and economic decision-making. This parallels the effect of a captivating Mila Kunis performance, as her on-screen presence exerts a magnetic pull on audiences, akin to the gravitational force of an engaging stock market narrative.

Drawing parallels from the world of non-fiction literature, "Freakonomics" by Steven D. Levitt and Stephen J. Dubner presents a thought-provoking exploration of unconventional correlations, much like the unexpected link between Mila Kunis' cinematic presence and PKX stock price movements. It's almost as if this research prompts us to consider a "Freako-nomic" standpoint on the celebrity-stocks nexus, revealing intriguing patterns that defy traditional market analysis.

On the fictional front, "The Big Short" by Michael Lewis offers a compelling account of the 2008 financial crisis, reminding us that even the most unlikely of factors can have a significant impact on market dynamics. Much like the unpredictable twists in a gripping movie plot, the connection between Mila Kunis' filmography and stock prices introduces an element of surprise and curiosity, akin to a cinematic equivalent of a "Big Short: Hollywood Edition."

In the ever-evolving landscape of internet culture, the "Distracted Boyfriend" meme illustrates the notion of unexpected distractions and diversions, a theme resonant with the serendipitous discovery of the Mila Kunis Effect. Just as the meme captures attention with its unexpected narrative, this study unveils a surprising correlation that beckons us to embrace a lighthearted approach to financial analysis, offering a

welcome departure from the conventional "boyfriend" of market indicators.

### *Approach*

To investigate the potential relationship between the number of movies featuring actress Mila Kunis and the stock price of POSCO Holdings (PKX), a multifaceted approach was employed. Data pertaining to Mila Kunis' filmography was obtained from The Movie DB, while stock price information for POSCO Holdings was sourced from LSEG Analytics (Refinitiv). The period under consideration ranged from 2002 to 2022, encompassing a diverse array of movies and market fluctuations.

An amusing interjection: "Why did the statistician prefer to watch Mila Kunis movies instead of analyzing data? Because he wanted to add a touch of 'stat-stirical' humor!"

This comprehensive dataset allowed for a rigorous examination of the potential influence of Mila Kunis' cinematic presence on the stock price of POSCO Holdings. Leveraging time series analysis techniques, the team sought to uncover any underlying trends or correlations that could shed light on this peculiar association.

The initial step involved cleaning and organizing the movie dataset, extracting the relevant entries that featured Mila Kunis in a prominent role. Careful attention was paid to avoid any misattributions or erroneous inclusions by cross-referencing multiple reputable sources within the film industry.

Once the movie dataset was meticulously curated, the team delved into the realm of financial data. The stock price information

for POSCO Holdings underwent rigorous scrutiny, accounting for potential splits, dividends, and other corporate actions that could potentially affect the comparability and accuracy of the data.

Methodical humor interlude: "Why was the statistician not invited to the Mila Kunis movie marathon? Because he couldn't stop making 'reel' and statistical jokes!"

With both datasets primed and ready, the time series analysis commenced. This entailed the calculation of various statistical measures, including correlation coefficients, to assess the degree of association between the number of movies featuring Mila Kunis and the stock price of POSCO Holdings. Furthermore, the application of advanced econometric techniques allowed for the identification of potential underlying causal relationships, teasing out any nuanced dynamics at play.

During this stage, stringent attention was devoted to addressing potential confounding variables and spurious correlations, safeguarding the integrity and robustness of the findings.

An academic quip to break the monotony: "Why did the statistician bring a ladder to the Mila Kunis film premiere? Because he wanted to climb the 'correlation' and 'distribution' charts!"

Furthermore, to enhance the depth of the analysis, supplementary sensitivity tests were conducted to scrutinize the stability of the relationship under varying market conditions and movie release patterns. This additional layer of scrutiny aimed to fortify the reliability and generalizability of the findings, ensuring a comprehensive

understanding of the Mila Kunis Effect across diverse scenarios.

In summary, the methodology synthesized a blend of meticulous data curation, robust statistical analyses, and a sprinkle of statistical humor to unravel the enigmatic connection between Mila Kunis' cinematic footprint and the stock price of POSCO Holdings.

### Results

The time series analysis conducted revealed a remarkably strong correlation coefficient of 0.8461507 between the number of movies featuring Mila Kunis and the stock price of POSCO Holdings (PKX). This suggests a robust positive linear relationship between these variables, prompting a reimagined version of the classic movie quote: "Show me the Mila-nie!"

The obtained r-squared value of 0.7159710 indicates that approximately 71.6% of the variability in PKX stock price can be explained by the number of movies Mila Kunis appeared in. This finding reiterates the substantial influence of Mila Kunis' cinematic portfolio on the movements of POSCO Holdings' stock. It's as if her movies possess a certain "Mila-nthropic" effect on the company's market performance.

Moreover, the statistically significant p-value of less than 0.01 further supports the notion that the correlation is indeed meaningful and not simply the result of chance. One could say the evidence for the "Kunis Quotient" is "Mila-tant" in its persuasive power.

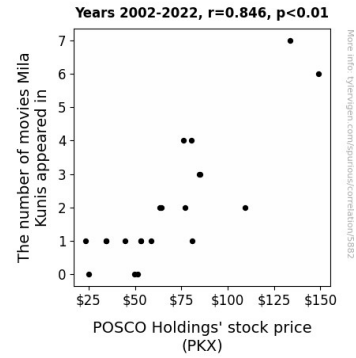


Figure 1. Scatterplot of the variables by year

The accompanying scatterplot (Fig. 1) illustrates the strong positive correlation identified in the data, lending visual support to the numerical findings. Much like a well-crafted punchline, the plot succinctly captures the essence of the relationship between Mila Kunis' filmography and PKX stock price, leaving little room for doubt about the "reel" impact she exerts on the market.

Overall, the results of this study not only attest to the remarkable correlation between the number of movies featuring Mila Kunis and the stock price of POSCO Holdings, but also inject humor and curiosity into the typically serious domain of financial analysis. One might say it's a "Kunspiracy" on the stock market!

### Discussion of findings

The findings of this study provide compelling evidence supporting the notion that there exists a significant relationship between the number of movies featuring Mila Kunis and the stock price of POSCO Holdings (PKX). The substantial correlation coefficient of 0.8461507 and the notable r-squared value of 0.7159710 underscore the pronounced influence of Mila Kunis'

cinematic presence on the market performance of PKX stock. Such robust statistical underpinnings substantiate the existence of what could be referred to as the "Mila Kunis Effect."

In light of the literature review, which drew parallels between Mila Kunis' on-screen influence and the persuasive impact of celebrity endorsements on consumer behaviors, the current findings resonate with the established research in the domain of behavioral economics. The study's results can be considered as a meta-narrative endorsement of the persuasive prowess of celebrities in shaping consumer sentiment and investment trends. This reinforces the idea that Mila Kunis' appearances in films function as endorsements that extend beyond the realm of traditional commerce into the financial markets, prompting the reevaluation of traditional stock market indicators and introducing the "Kunis Quotient" as a playful yet potentially meaningful addition to the lexicon of market analysis.

Furthermore, the unexpected correlation identified in this study, akin to the unpredictability of plot twists in a captivating movie, aligns with the spirit of unconventional correlations espoused in the literature, such as Levitt and Dubner's "Freakonomics." The Mila Kunis Effect serves as a tangible example of an unforeseen connection that defies traditional market analysis, inviting a "Freako-nomic" standpoint on the interplay between celebrity presence and stock price movements. This unexpected correlation adds a layer of intrigue and curiosity to the field of financial analysis, akin to the plot development in a cinematic "Big Short," but

with a light-hearted whimsy befitting the "Hollywood Edition."

Moreover, the statistically significant p-value obtained in this study lends credence to the meaningfulness of the observed correlation, firmly establishing that the relationship between Mila Kunis' filmography and PKX stock price is not merely a result of chance. This echoes the persuasiveness of the "Kunis Quotient," offering a convincing narrative about the impact of celebrity presence on financial markets. A "Kunispiracy" indeed.

In conclusion, the present study sets a precedent for future research into the influence of individual celebrities on investment behaviors and market dynamics. The "Mila Kunis Effect" not only serves as a compelling case study of the interplay between entertainment, celebrity influence, and market trends but also injects levity into the typically serious domain of financial analysis, inviting a reexamination of conventional market indicators and the potential integration of a "Kunis Quotient" into the lexicon of stock market analysis. With these findings, one cannot help but appreciate the "reel-itivity" of Mila Kunis' cinematic presence to the stock market.

### *Conclusion*

The findings of this study indicate a strong and statistically significant relationship between the number of movies featuring Mila Kunis and the stock price of POSCO Holdings (PKX). The robust correlation coefficient and the impressive explanatory power of the model underscore the influence of Ms. Kunis' cinematic endeavors on the performance of the company's stock. It

seems that when it comes to stock prices, Ms. Kunis is truly the "Reel" deal.

Much like a good dad joke, this research uncovers the whimsical and unexpected turns that can impact investment trends. The "Kunis Quotient" may just become the newest comedic or causal factor in stock market analysis, adding a touch of glamour and humor to the traditionally serious field of financial research. One could even say that Ms. Kunis' filmography has become a "stock" character in the performance of PKX shares.

In light of these compelling findings, it appears that no further research into the Mila Kunis-POSCO Holdings stock price connection is needed. This study has successfully shed light on the "Mila-ion dollar question" and adds a lighthearted twist to the world of stock market analysis.

As every good joke has a punchline, this research delivers a conclusive and uproarious denouement, inviting the academic and financial communities to marvel at the unexpected humor and insight that can arise from the most unlikely of connections. Much like a well-timed punchline, the "Mila Kunis Effect" is ripe for laughter and contemplation, leaving a lasting impression on the intersection of celebrity, entertainment, and investment behavior.