

Corruption Perception, Institutional Quality and Stock Prices: Evidence from the Egyptian Capital Market

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Abstract :

This study examines the impact of institutional quality and corruption perception on stock prices in the Egyptian capital market, with a focus on the post-revolution period from 2013 to 2022. Using the Generalized Method of Moments (GMM)

methodology, this study provides empirical evidence on the significant role of macro-political factors and firm-specific variables in shaping stock market dynamics. The findings reveal that institutional quality, characterized by governance efficiency, regulatory frameworks, and the rule of law, positively correlates with stock prices. Similarly, enhanced corruption perception control significantly boosts investor confidence, leading to increased market valuations. Firm-level factors such as Tobin's Q and firm age also show positive associations with stock prices, whereas foreign direct investment (FDI) and return on assets (ROA) exhibit negative effects. This study underscores the importance of robust institutional frameworks and anti-corruption perception to foster market stability and attract investment in emerging economies. This study contributes to the limited literature on the Middle East and North Africa (MENA) region, offering critical insights for policymakers, investors, and stakeholders. Future studies should explore these dynamics in other developing markets and during periods of significant institutional reforms.

Keywords: Corruption Perception, Institutional Quality, Egypt, Stock Prices.

1. Introduction

The economic landscape of a nation is substantially influenced by two critical factors: perceived corruption perception and degree of institutional quality. The resilience of a government and its institutions in maintaining order, implementing policies, and fostering an environment conducive to development is referred to as institutional quality. Conversely, corruption perception erodes trust in public institutions, distort market mechanisms, and establish an unpredictable business environment, undermining this stability.

Collectively, these components generate a multifaceted interaction that can have significant repercussions on the stock prices of companies operating within a specific country, as well as the attractiveness of investments and economic performance. Domestic and foreign investors who desire a predictable environment for their capital are attracted to a country that possesses institutional quality. By contrast, the presence of high levels of corruption perception can discourage investment by exposing potential investors to heightened risks, including regulatory uncertainty, legal challenges, and bribery. Economic progress is further impeded by inefficiencies in resource allocation that can result from this environment, which also stifles entrepreneurial activity.

Stock prices often reflect the implications of corruption perception and institutional quality for listed companies. Investors are highly conscious of the political environment, and any indications of instability or unethical practice allegations can induce volatility in stock markets. High compliance costs, reputational damage, and diminished profitability may result in declining stock values for companies operating in regions characterized by corruption perception, such as emerging markets. Conversely, companies that prosper in stable political environments frequently experience robust financial performance and, consequently, higher market valuations.

In summary, companies' financial health, as evidenced by their stock prices, is significantly influenced by the interplay between corruption perception and institutional quality, which in turn shapes economic outcomes and investment decisions. If investors, policymakers, and businesses successfully navigate the intricacies of the global marketplace, it is imperative that they comprehend these dynamics. In the Egyptian context, this is especially critical, as corruption perception continues to be a significant concern following the 2011 revolution (Achraimer, 2024).

Overall, the interplay between institutional quality and the level of corruption perception is crucial for determining company stock prices. While corruption perception tends to have a detrimental effect on stock market development, good corporate governance

practices can mitigate these negative impacts and contribute to higher stock prices. Investors and stakeholders should consider these factors when evaluating investment opportunities to make informed decisions based on the quality of institutions and perceived level of corruption perception within a market.

Although investigating the relationship between unethical practice, institutional quality, and stock prices is a critical area of research that clarifies the interactions between governance, transparency, and market dynamics, this relationship was only the subject of two investigations conducted in the MENA region. The initial study was conducted by Aljazeera et al. (2016), who investigated the influence of corruption perception, as quantified by the Corruption perception Index (CPI), on the development of the stock market in Gulf Cooperation Council (GCC) countries. Their research emphasizes the necessity of considering the broader socioeconomic context when analyzing the impact of corruption perception on stock prices. Badr (2024) investigated the relationship between sustainability reporting disclosure, earnings quality, and stock price collapse risk in Egyptian listed companies. Both studies underscore the complex relationship between market outcomes, financial reporting, and governance practices in the Egyptian context.

Consequently, the main objective of this study is to fill this research gap by providing empirical evidence regarding the

impact of political stability and corruption perception on stock prices in the Egyptian context after the Egyptian revolution.

We contribute to the existing literature by being the first in the MENA region to empirically investigate the impact of World Bank indicators on corruption perception and institutional quality on stock prices in the Egyptian Capital Market. To accomplish this, we examine the period from 2013 to 2022, which is after the Egyptian revolution of January 25, 2011, and control for critical accounting performance ratios, such as Tobin's Q and Return on Assets (ROA).

The findings of this investigation have significant implications for various market participants, including policymakers, managers, and investors. This study provides investors in emerging markets with valuable insights into the influence of country-specific and macro-political factors on their portfolio decisions in these markets as well as how this consideration, in conjunction with firm-specific factors, has the potential to enhance portfolio returns.

This research emphasizes the nature and extent of the potential opportunity costs that stakeholders may incur because of weaknesses in governance and political institutions, as seen from the perspective of company managers. It is imperative to be aware of these costs, the factors associated with them, and the strategies that have been shown to improve business outcomes in

these environments, especially for sectors that are more susceptible to corruption perception or operate under unstable administrations. Finally, the results will provide policymakers in these markets with guidance on the potential advantages of pursuing reform initiatives to improve the transparency and fairness of their political and institutional systems. This has the potential to improve the local investment environment and to stimulate economic growth.

The remainder of this paper is organized as follows: Section 2 reviews the relevant literature and formulates our hypotheses. Section 3 presents the study's data and methodology. Section 4 discusses empirical results and Section 5 offers concluding remarks.

2. Literature Review and Hypotheses Development

2.1 Corruption Perception and Stock Prices

Economic theory suggests that there is no strong theoretical foundation to assert that increased corruption perception in a country, such as corruption, result in lower long-term stock market returns. To better understand and clarify the relationship between corruption perception and a nation's stock market performance, it may be useful to differentiate between the roles and effects of various stock market participants (Bahoo et al., 2020; Martins et al., 2020; Sartor & Beamish, 2020). This

distinction is particularly important in Egypt, where corruption perception continue to be a significant concern following the 2011 revolution (Achraimer, 2022).

There are two perspectives on the impact of corruption perception on stock prices, and several studies indicate a complex relationship between unethical practice levels and stock market performance. Corruption perception have an enormous impact on corporate stock values. According to Leff (1964), corruption perception have the potential to increase economic efficiency by allowing enterprises to avoid inefficient laws and regulatory hurdles, thereby increasing the economy's smooth operations. Also, Missaoui et al. (2018) discovered a positive effect of corruption perception on the stock market index and capitalisation,

However, corruption perception, as measured by the consumer price index (CPI), have been consistently linked to adverse effects on stock market development, including lower valuation and borrowing costs.

According to Asaad and Marane (2020), higher levels of corruption perception, can lower business stock values. Ng (2006) revealed that corruption perception lead to lower stock valuations, poor corporate governance, and greater borrowing costs for corporations. Moreover, Aljazaerli et al. (2016) observed that Corruption perception discourages investors from

investing in corrupt states, thereby affecting stock markets. The disclosure of suspected illegal actions, including corruption perception, has been proven to negatively affect stock prices in certain fields, such as defense (Krishnamurti et al., 2021).

Despite the negative connotations associated with corruption perception, some company officials justify engaging in corrupt practices to secure business opportunities, highlighting the ethical dilemmas firms face in corrupt environments (Krishnamurti et al., 2021). This underscores the intricate relationship among corruption perception, institutional quality, and stock market dynamics. Furthermore, the level of corruption perception has been identified as a crucial factor to consider before making investment decisions because it significantly influences stock market development (Kelven and Jais, 2018).

When investigating the impact of unethical behaviors on financial performance, it is clear that corruption perception can destroy investor confidence and public faith in businesses, resulting in lower financial performance (Karim et al., 2022). However, in some settings such as the Tunisian stock market, a positive association has been established between the level of illegal conduct and stock market indices, demonstrating the complexities of the relationship between corruption perception and stock market results (Missaoui et al., 2018). This intricacy is exacerbated by external events such as financial fraud scandals, which can increase

stock price collapse risks and need greater information transparency to reduce internal unethical activities within management.

Taken together, the Egyptian setting, where listed firms operate, provides strong incentives to study the impact of corruption perception, such as corruption perception, on stock prices. Thus, the first testable hypothesis proposes a significant association between corruption perception and stock prices.

H1. Corruption perception significantly affect stock prices in the Egyptian capital market.

2.2 Institutional Quality and Stock Prices

In addition to corruption perception, institutional quality also affects stock price. To understand the impact of institutional quality on company stock prices, it is crucial to consider the findings of various studies in different contexts that have explored this complex relationship. For example, Mulyono et al. (2018) demonstrate that both corporate governance and firm performance significantly influence stock prices. This suggests that strong institutional quality can lead to higher stock prices because of increased investor confidence and transparency in company operations. Nur et al. (2022) reveal that good corporate governance, as evaluated by the board of directors and commissioners, negatively affects stock prices.

Nur et al. (2022) emphasized the significance of effective corporate governance concerning stock prices, revealing that good governance has a detrimental effect on stock prices in manufacturing firms. Additionally, Mulyono et al. (2018) emphasized that both corporate governance and firm performance have been shown to exert a significant influence on stock prices, emphasizing the multifaceted nature of the factors affecting stock market dynamics.

Moreover, a-share market analyst optimism on stock price collapse risks, particularly in China's A-share market, highlights the nuanced interplay between psychological factors and institutional ownership in stock market outcomes (Li, 2024). In conclusion, the impact of institutional quality and the level of corruption perception on company stock prices is a multifaceted issue that requires a comprehensive understanding of various factors and contexts.

Thus, while institutional quality is essential for ethical business practices, it can negatively impact stock prices in certain contexts. The intricate relationship between corruption perception, institutional quality, and stock market dynamics underscores the need for further research to elucidate the mechanisms through which these factors interact, especially in the Egyptian context, to shape stock prices. Collectively, we posit that institutional quality has a significant effect on stock prices in the Egyptian capital market.

H2. Institutional quality significantly affects stock prices in the Egyptian capital market.

3. Study Design

3.1. Study Methodology

In this study, we conducted panel data analysis to investigate the relationship between key variables over a specific period. The dataset includes multiple observations across different entities, allowing us to capture time-series variations.

Descriptive statistics will be used as an initial step to analyze the dataset and calculate key summary statistics, such as the mean, standard deviation, minimum, and maximum values for each variable. These summary statistics provide insights into data distribution and identify any significant variations. A line plot was then used to visually represent the general trends and behavior of the variables over time.

The step following the descriptive statistics involves testing the linear relationship between stock prices and both the level of corruption perception and institutional quality, controlling for other explanatory variables. The Generalized Method of Moments (GMM), proposed by Arellano and Bond (1991), is employed because of its ability to handle situations where the normality assumption is violated. The GMM is preferred over the maximum likelihood estimation because it requires fewer distributional assumptions. This study applies system GMM, which enhances efficiency by incorporating

additional moment conditions and addressing potential issues such as heteroscedasticity and serial correlation. To ensure the validity of the model, two crucial tests were conducted: the Sargan-Hansen test for over-identification and the Arellano-Bond test for autocorrelation.

3.2. Study Measures and Characteristics

This study focuses on stock prices as the dependent variable and examines their relationship with institutional quality factors as well as unethical practice factors. The independent variables include political instability, government effectiveness, regulatory quality, rule of law, control of corruption, corruption index, and corruption rank. In addition to these variables, several control variables were incorporated to account for other factors that may influence stock prices. The firm-level control variables include Tobin's Q, return on assets (ROA), market leverage, firm age, firm size, and tangibility. In contrast, the country-level control variables include inflation, domestic credit, and foreign direct investment. A summary of these variables is provided in the table below:

Table (1): Study Variables

Dependent Variable	Stock Prices	
Independent Variables	Institutional quality	<ul style="list-style-type: none">• Political Instability• Government Effectiveness• Regulatory Quality• Rule of Law
	Corruption perception	<ul style="list-style-type: none">• Control of corruption• corruption Index• corruption Rank
Firm-Level Control Variables	<ul style="list-style-type: none">• Tobin’s Q• Return on Assets (ROA)• Market Leverage• Firm Age• Firm Size• Tangibility	
Country-Level Control Variables	<ul style="list-style-type: none">• Inflation• Domestic Credit (DC)• Foreign Direct Investment (FDI)	

3.3. Data Coding

In this study, missing data was addressed using appropriate imputation techniques to maintain the robustness of the analysis. Missing values are a common issue in panel data, and the choice of imputation method depends on the nature and pattern of missingness. This approach is critical to avoid potential bias in the estimation process. By applying these techniques, the dataset better reflects the true distribution of variables, thereby reducing the risk of drawing misleading conclusions from incomplete data.

3.4 Statistical Technique and Analysis

3.4.1 Descriptive Statistics

First, we describe the study variables by computing descriptive measures, such as mean, minimum, maximum, and standard deviation. After completing this step, we describe these variables again by computing their average values according to the years and companies.

Table (2): Descriptive Statistics of the Variables Overall

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Stock Prices	342	0.11	416.00	12.35	35.33
Political Stability	342	-1.60	-1.00	-1.27	0.21
Government Effectiveness	342	-0.70	-0.30	-0.50	0.12
Regulatory Quality	342	-0.90	-0.50	-0.73	0.12
Rule of Law	342	-0.70	-0.30	-0.41	0.15
Control of Corruption	342	-0.80	-0.50	-0.63	0.09
Corruption Index	342	30.00	37.00	33.89	2.03
Corruption Rank	342	88.00	130.00	109.11	12.15
Tobin's Q	342	0.21	5.67	1.01	0.83
Return on Assets (ROA)	342	-0.85	24.13	0.40	2.18
Market Leverage	342	0.00	125.73	25.60	24.47
Firm Age	342	3.00	168.00	43.66	29.94
Firm Size	342	4.62	12.00	8.03	1.63
Tangibility	342	-0.42	0.97	0.44	0.25
Inflation	342	3.60	23.30	12.73	7.18
Domestic Credit (DC)	342	1854.00	8169.00	4338.44	1874.02
Foreign Direct Investment	342	2.84	5.28	4.09	0.82

The descriptive statistics reveal key insights into the variables of interest. **Stock prices** exhibit a wide range, spanning from a minimum of 0.11 to a maximum of 416, with a mean of approximately 12.35 and a standard deviation of 35.33, indicating significant variability in stock performance.

Political stability scores range from -1.60 to -1.00, with a mean of -1.27 and a standard deviation of 0.21. This suggests a generally low but relatively consistent level of political stability. Similarly, **government effectiveness** ranges from -0.70 to -0.30, with a mean of -0.50 and a standard deviation of 0.12, reflecting moderately low but stable governance effectiveness. **Regulatory quality** scores span from -0.90 to -0.50, averaging -0.73 with a standard deviation of 0.12, indicating a relatively uniform regulatory environment.

The rule of law shows a range from -0.70 to -0.30, with a mean of -0.41 and a standard deviation of 0.15, suggesting moderate challenges in legal enforcement. **Control of corruption** ranges between -0.80 and -0.50, with a mean of -0.63 and a standard deviation of 0.09, demonstrating limited variability in anti-corruption measures. Meanwhile, the **Corruption Index** ranges from 30.00 to 37.00, averaging 33.89 with a standard deviation of 2.03, and the **Corruption Rank** varies between 88.00 and 130.00, with a mean of 109.11 and a

standard deviation of 15.15, showing notable variability in corruption perceptions and rankings.

Tobin's Q, an indicator of firm valuation, ranges from 0.21 to 5.67, with a mean of 1.01 and a standard deviation of 0.83, reflecting diverse market valuations. **Return on assets (ROA)** exhibits a significant range from -0.85 to 24.13, with a mean of 0.40 and a standard deviation of 2.18, indicative of varied profitability among firms.

Market leverage spans a wide range, from 0.00 to 125.73, with a mean of 25.60 and a standard deviation of 24.47, suggesting substantial differences in debt utilization. **Firm age** ranges from 3 to 168 years, with an average of 44 years and a standard deviation of 29.94 years, highlighting a mix of both young and well-established firms. **Firm size**, measured logarithmically, varies from 4.62 to 12.00, with a mean of 8.03 and a standard deviation of 1.63.

Tangibility, which reflects the proportion of physical assets, ranges from -0.42 to 0.97, with a mean of 0.44 and a standard deviation of 0.25, showing moderate diversity in asset structures. **Inflation** rates vary significantly, from 3.60% to 23.30%, with a mean of 12.73% and a standard deviation of 7.18%, reflecting economic fluctuations. **Domestic credit (DC)** ranges widely, from 1,854.00 to 8,169.00, with a mean of 4,338.44 and a

standard deviation of 1,874.02, suggesting variability in credit accessibility. Lastly, **foreign direct investment (FDI)** ranges from 2.84 to 5.28, with a mean of 4.09 and a standard deviation of 0.82, indicating moderate variation in FDI inflows.

These findings collectively provide a comprehensive overview of the data, highlighting the diversity and underlying trends in the studied variables.

**Table (3): Frequency Distribution of the Companies
According to the Industry Factor**

Industry	Frequency	Percentage
Yes	20	48.80%
No	21	51.20%
Total	41	100.00%

3.4.2: Correlation Analysis

Table (4): Pearson's Correlation Coefficients

	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption	Corruption Index	Corruption Rank	Trade's G	Return on Assets	Market Leverage	Firm Age	Firm Size	Tangibility	Influence	Dividend Payout	Foreign Share Investment
Political Stability	1															
Government Effectiveness	0.780**	1														
Regulatory Quality	0.608**	0.677*	1													
Rule of Law	0.560**	0.581**	0.310**	1												
Control of Corruption	-0.106**	-0.472**	-0.412**	-0.363**	1											
Corruption Index	-0.432**	-0.672**	-0.263**	-0.640**	0.272**	1										
Corruption Rank	0.714**	0.688**	0.367**	0.743**	-0.260**	-0.349**	1									
Trade's G	-0.440	-0.122*	-0.009	-0.006	0.077	0.127*	-0.132**	1								
ROA	0.030	0.017	0.046	0.023	-0.030	-0.026	0.026	-0.010	1							
Market Leverage	0.180	0.086	0.030	0.090	-0.001	-0.070	0.086	-0.120**	-0.140**	1						
Firm Age	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.010	0.101**	-0.170**	1					
Firm Size	0.140**	0.127*	0.013	0.140**	-0.047	0.110*	0.132**	-0.129*	-0.186**	0.103**	0.066	1				
Tangibility	-0.077	-0.037	-0.018	-0.001	0.030	0.000	-0.001	-0.100**	-0.033	0.240**	-0.000	-0.030	1			
Influence	-0.221**	-0.186	-0.154**	-0.110**	0.101**	-0.103**	0.100**	-0.001	-0.013	-0.020	0.000	-0.000	-0.013	1		
Dividend Payout	0.007**	0.063**	0.110**	0.782**	-0.100**	-0.020**	0.071**	-0.002	0.002	0.100	0.000	0.142**	-0.000	0.020	1	
Foreign Share Investment	0.002**	0.001**	0.110**	0.782**	-0.122**	-0.130**	0.070**	-0.022	0.043	0.071	0.000	0.122**	-0.070	-0.100**	0.782**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

It can be concluded that there is no high correlation between the explanatory variables, as all correlation coefficients are less than 0.7, except for the relationship between institutional quality, as they are highly correlated with each other and with other variables. Therefore, an indicator for these variables must first be created to reduce multicollinearity. Furthermore, there is a high correlation between the Corruption index and corruption rank; therefore, only control of corruption will be included in our GMM, as the three variables measure the same thing, which is the level of corruption perception.

The institutional quality indicator is created in two steps: the first step is to re-scale each variable by subtracting its minimum value, then dividing it over its range, while the second step is to take the average value of the rescaled variables to calculate the indicator.

Table (5): Pearson's Correlation Coefficients

	Institutional quality	Control of corruption	Tobin's Q	Return on Assets	Market Leverage	Firm Age	Firm Size	Tangibility	Inflation	Domestic Credit	Foreign Direct Investment
Institutional quality	1										
Control of Corruption	-0.577**	1									
Tobin's Q	-0.075	0.077	1								
ROA	0.044	-0.035	-0.010	1							
Market Leverage	0.102	-0.081	-0.230**	-0.144**	1						
Firm Age	0.083	-0.051	0.003	0.185**	-0.163**	1					
Firm Size	0.147**	-0.067	0.129*	-0.198**	0.293**	0.016	1				
Tangibility	-0.06*	0.030	0.199**	-0.033	0.144**	-0.066	-0.050	1			
Inflation	-0.195**	0.301**	-0.001	-0.013	-0.025	-0.013	-0.006	-0.013	1		
Domestic Credit	0.672**	-0.564**	-0.092	0.052	0.104	0.084	0.142**	-0.080	0.020	1	
Foreign Direct Investment	0.602**	-0.223**	-0.022	0.043	0.071	0.066	0.122*	-0.070	-0.159**	0.603**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Now there is no high correlation between explanatory variables as all correlation coefficients are less than 0.7

3.4.3: System GMM

The initial step involves testing the linear relationship between stock prices and the level of corruption perception and institutional quality while controlling for other explanatory variables. The Generalized Method of Moments (GMM) can be employed as an

alternative to static panel models, particularly when the key assumption of normality for the error term (or dependent variable) is not satisfied. This assumption was tested in the current study using the Jarque-Bera test for normality. The null hypothesis for the Jarque-Bera test states that the data follow a normal distribution. The results of the Shapiro-Wilk test are shown below.

Table (6): Shapiro–Wilk W Test for Normal Data

Variable	N	W	V	z	Prob > z
Stock Prices	342	0.292	169.485	12.124	0.000

The rejection of the null hypothesis, as indicated by a p-value (Prob > z) of 0.000, which is less than the conventional significance level of 0.05, suggests that the stock price variable significantly deviates from a normal distribution. When the assumption of normality is violated, the **Generalized Method of Moments (GMM)**, introduced by Arellano and Bond (1991) and formalized by Hansen (1982), serves as a robust alternative for estimation. Unlike Maximum Likelihood Estimation (MLE), which requires complete knowledge of data distribution, GMM relies only on specified moments derived from an underlying model. Furthermore, while MLE can be computationally expensive when the data distribution is known, GMM is often more efficient and versatile. It also allows for testing the specification of the proposed model,

particularly when there are more moment conditions than model parameters—a distinctive feature of GMM.

The original GMM estimator, known as **Difference GMM**, eliminates fixed effects by differencing the data. This approach exploits the panel data structure to address cross-section-specific effects and endogenous explanatory variables. By differentiating the regression equation and using instrumental variables based on previous observations, Difference GMM effectively controls for fixed effects and potential biases. It is particularly suitable for datasets with many panel units (e.g., countries) and relatively short time periods (typically up to 20–25 periods).

However, Difference GMM faces limitations when applied to highly persistent time series, where lagged levels of the series are weakly correlated with the first differences, resulting in weak instruments for the differenced equations. To address this issue, Arellano and Bover (1995) and Blundell and Bond (1998) developed the **System GMM** estimator. This expanded approach introduces additional moment restrictions, allowing lagged first differences to serve as instruments for the level equations, thereby correcting the bias inherent in the standard Difference GMM. System GMM estimates both the difference and level equations simultaneously, with distinct instruments for each. While System GMM offers increased efficiency and robustness,

it requires additional restrictions on the initial conditions of the data-generating process.

The **advantages of System GMM** over Difference GMM are noteworthy. These include the use of additional moment conditions and enhanced efficiency and robustness in the presence of heteroscedasticity and serial correlation.

Once a GMM model is estimated, it is essential to validate its assumptions and results. Two critical diagnostic tests are commonly used for this purpose:

1. The **Sargan-Hansen test** evaluates the over-identifying restrictions in the model, determining whether the instrumental variables are valid. The null hypothesis states that there is "no over-identification." If this null hypothesis is not rejected, the model's instruments are considered valid.
2. The **Arellano-Bond test** checks for autocorrelation in the model's errors. The null hypothesis assumes "no autocorrelation." If this null hypothesis is not rejected, the model is deemed free from autocorrelation issues, reinforcing its validity.

By addressing issues such as endogeneity, heteroscedasticity, and serial correlation, GMM—particularly the System GMM

estimator—has become a widely adopted and powerful tool in economic and financial research. According to the above, the following model is estimated,

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \sum_i \theta_i x_{it} + \varepsilon_{it} \dots (1)$$

Where:

Y_{it} = Dependent Variable (Stock Prices),

Y_{it-1} = Lagged Dependent Variable

x_{it} = Explanatory Variables (Institutional quality, Level of Corruption perception, Firm-Level Control Variables, Country-Level Control Variables),

β_0 = Intercept (Constant Term),

θ_i = Slope Coefficients for x_{it} Explanatory Variable,

ε_{it} = Error Term (with mean of zero and constant variance).

Table (7): Summary of the Model

Dynamic Panel-Data Estimation, Two-Step System GMM				
Group Variable	CompanyID	Number of Observations	304	
Time Variable	Year	Number of Groups	38	
Number of Instruments	21	Observations per Group	Minimum	8
Wald Chi2 (12)	482.88		Average	8
Prob > Chi2	0.000		Maximum	8

According to these results, the p-value of the Wald Chi2 test is 0.000, which is significant (less than 0.05). This means that at least one independent variable has a significant effect on stock prices.

Table (8): Coefficient of the Model

Variable	Stock Price
First Lag of Stock Price	0.350 ^{***} (0.0861)
Institutional quality	10.81 ^{***} (2.934)
Corruption perception	15.69 ^{***} (4.829)
Tobin's Q	1.041 [*] (0.548)
Return on Assets (ROA)	-0.422 ^{**} (0.179)
Market Leverage	0.0407 (0.0593)
Firm Age	0.0709 ^{**} (0.0316)
Firm Size	-0.249 (0.898)
Tangibility	-8.893 (6.062)
Inflation	0.158 (0.0989)
Domestic Credit	0.000137 (0.000337)
Foreign Direct Investment (FDI)	-1.444 ^{**} (0.532)
Constant	13.73 (9.423)
Observations	304
Number of CompanyID	38
Standard Error in Parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

The analysis reveals that institutional quality exerts a significant positive influence on stock prices at the 99% confidence level. With a p-value of less than 0.01 and a coefficient of 10.81, the findings indicate that a one-unit increase in institutional quality leads to a corresponding 10.81-unit rise in stock prices, assuming all other independent variables remain constant. Similarly, the perception of corruption also has a statistically significant positive impact on stock prices at the 99% confidence level. The p-value is below 0.01, and the coefficient is 15.69, suggesting that a one-unit increase in corruption perception results in a 15.69-unit increase in stock prices, holding all other factors constant.

Furthermore, Tobin's Q demonstrates a significant positive effect on stock prices, albeit at a lower confidence level of 90%. With a p-value of less than 0.10 and a coefficient of 1.041, the results suggest that a one-unit increase in Tobin's Q corresponds to a 1.041-unit rise in stock prices, provided that all other independent variables remain unchanged. Conversely, return on assets (ROA) negatively affects stock prices at a 95% confidence level. The p-value is below 0.05, and the coefficient stands at -0.422, indicating that a one-unit increase in ROA results in a 0.422-unit decline in stock prices when controlling for other variables.

Firm age also plays a significant role in influencing stock prices positively, with a 95% confidence level. A p-value of less

than 0.05 and a coefficient of 0.0709 suggest that each additional year in a firm's existence contributes to a 0.0709-unit increase in stock prices, assuming other variables remain constant. On the other hand, foreign direct investment (FDI) has a significant negative impact on stock prices at the 95% confidence level. The p-value is less than 0.05, and the coefficient is -1.444, indicating that a one-unit increase in FDI leads to a 1.444-unit decline in stock prices, keeping all other factors constant.

Finally, the study finds no statistically significant impact of market leverage, firm size, tangibility, inflation, and domestic credit on stock prices at the 90% confidence level. This suggests that these factors do not exert a meaningful influence on stock prices when accounting for other independent variables in the model.

Table (9): Diagnostics Tests for the Model

Arellano-Bond Test for AR (1)		Arellano-Bond Test for AR(2)	
z	Prob > z	z	Prob > z
-0.96	0.337	-1.08	0.281
Sargan Test (not robust, but not weakened by many instruments)		Hansen Test (robust, but weakened by many instruments)	
Chi2(8)	Prob > Chi2	Chi2(8)	Prob > Chi2
2.56	0.959	5.32	0.722

The Arellano-Bond test suggests that there is no significant autocorrelation up to the second order in the residuals of the first model. Furthermore, the Sargan test indicates that there is no over-identification problem, which indicates the goodness of fit of the test.

4. Conclusion

This study investigates the interrelationships between the institutional quality, corruption perception, and stock prices in the case of the Egyptian capital market from 2013 to 2022. The conclusion accentuates institutional quality and corruption perception as the forcing power behind the boundaries set in the prices of stocks where resources are otherwise available for profit maximization.

According to the research, increased effectiveness of public institutions through effective governance, rule of law, regulatory policies, and laws has a crippling effect on stock prices in a positive manner through increased stability and confidence from investors. Similarly, a lack of corruption perception helps to enhance the performance of the stock market, as instability and risks emanating from lack of proper governance are minimized. There is a need for good and credible institutions if market efficiency and investment are to be improved, especially in developing economies like Egypt. These findings are consistent with those of Mulyono et al. (2018), who found that both governance practices and firm performance significantly influence stock prices, with good governance enhancing investor confidence and transparency. In addition, Bahoo et al. (2020) and Long and Huang (2020) support the finding that institutional quality correlates positively with stock prices and is often significant at the 99% confidence level ($p < 0.01$), reflecting the

robustness of this relationship. Other studies on emerging markets also indicate that stronger institutions foster market stability and boost investor confidence, contributing to higher stock valuation. However, some findings, such as those of Nur et al. (2022), suggest that high governance standards, especially regarding board oversight, can sometimes lead to lower stock prices, indicating varied effects across contexts.

Many scholars support the notion that unethical practice control has a favorable effect on stock prices. A number of studies, including Asaad and Marane (2020) and Missaoui et al. (2018), find that fewer corruption perception enhance market confidence and lower volatility in the shares in the case of developing countries, which results in increased share prices. These two studies emphasize that there is a positive relationship between stock performance and the control of corruption perception through the reduction of risks and improvement of the investment climate.

On a similar note, the World Bank, alongside the ISID, has conducted studies and agrees that strong anti-corruption practices policies can improve the level of efficiency of the market and investors, especially in regions where corruption perception have affected business and economic growth in the past.

The evidence presented in this study is consistent with larger empirical studies, which in this case reveal that there is decreased

volatility in these markets and increased capital inflows because investors perceive these markets as less risky and have greater returns on such investments in the long term (ISID, World Bank Reports). A conflicting standpoint is held by some studies that have proven that corruption perception discourage investment because they lower stock market values while also increasing the cost of borrowing and impairing companies' management structures (Ng, 2006; Aljazaerli et al., 2016; Asaad & Marane, 2020). Where there are disclosures of corruption perception, they tend to be harmful to share prices, particularly in certain industries, such as defense (Krishnamurti et al., 2021).

As a basis for effective governance, institutional quality and governance practices are therefore fundamental, as without good governance, the negative implications of corruption perception are hardly managed, hence creating stable or better stock prices. The role played by corruption perception in the case of Tunisia shows that corruption perception do not always have adverse effects, and in some instances, there is even a positive correlation between stock indices and levels of corruption perception in such countries (Missaoui et al., 2018).

At the firm level, other variables like Tobin's q, age of the firm as well as the return on assets also determine the price of stocks. Tobin's q and age of the firm advanced a direct relationship with stock price because the market preferred the

more mature and effective firms. On the other hand, the inverse relationship between ROA and stock prices could probably indicate varied investment behaviour, which requires great attention, especially regarding earnings and valuation of the firm in the marketplace.

Policy makers and stakeholders should pay attention to such results on the basis that the enhancement of institutional frameworks and the fight against corruption perception can propel economic development and improve market stability. For investors, this work adds such factors in understanding the risk and opportunity in the Egyptian capital market, considering not only macro-political variables, but also firm characteristics.

This study adds to the scant literature on the MENA region, particularly Egypt, after the revolution in 2011, which has been noted to have peculiar economic and institutional constraints. However, subsequent studies might be able to build on these results by looking into other developing economies and the more dynamic relationships between governance changes and stock market development in the long term.

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