Theoretical and Practical Research in Economic Fields

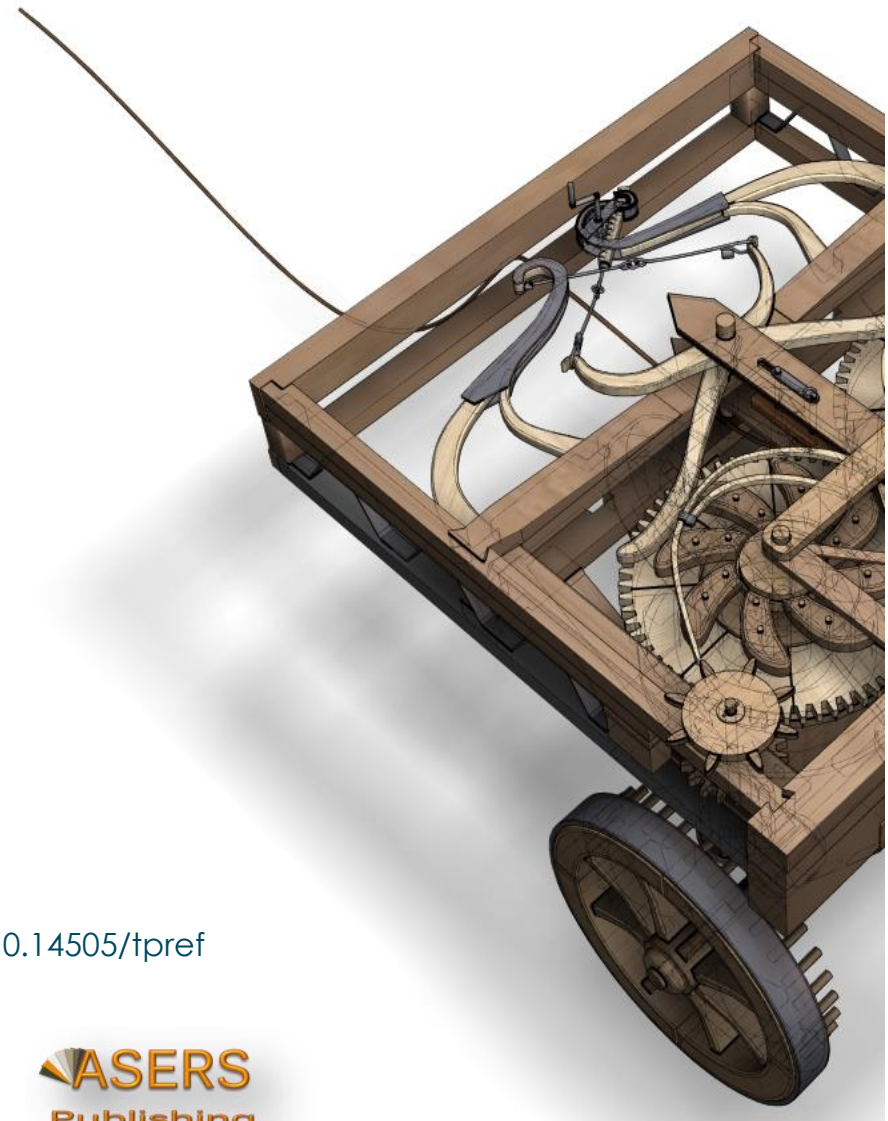

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Table of Contents

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Call for Papers
Fall Issue
Theoretical and Practical Research in Economic Fields

Many economists today are concerned by the proliferation of journals and the concomitant labyrinth of research to be conquered in order to reach the specific information they require. To combat this tendency, **Theoretical and Practical Research in Economic Fields** has been conceived and designed outside the realm of the traditional economics journal. It consists of concise communications that provide a means of rapid and efficient dissemination of new results, models, and methods in all fields of economic research.

Theoretical and Practical Research in Economic Fields publishes original articles in all branches of economics – theoretical and practical, abstract, and applied, providing wide-ranging coverage across the subject area.

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At the same time, the journal encourages the interdisciplinary approach within economic sciences, this being a challenge for all researchers.

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All the papers will be first considered by the Editors for general relevance, originality, and significance. If accepted for review, papers will then be subject to double blind peer review.

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The Impact of Sovereign Wealth Fund Acquisitions on Corporate Performance and Value. A Comparative Study in the Madrid and Saudi Stock Exchanges

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Abstract: This study investigates the influence of sovereign wealth fund (SWF) investments on the financial performance of firms in Saudi Arabia and Spain. Findings indicate that SWF investments exert a notable influence on average share prices, accounting for a considerable portion of the variation in stock values across both countries. Conversely, no significant relationship was found between SWF investments and other financial indicators such as return on investment, liquidity ratio, financial leverage, and profitability ratio.

The analysis underscores the relevance of a firm's national context when assessing the implications of SWF activity, as such investments may alter ownership structures and strategic directions. Additionally, the study emphasizes that SWF decisions are closely linked to broader economic and political developments, necessitating continuous monitoring and contextual evaluation.

To explore these dynamics, the research utilized statistical tools such as regression models and coefficients of determination, enabling a clear measurement of the investments' effects on financial indicators.

The study concludes with several recommendations: further investigation into other variables influencing financial performance, stronger collaboration with SWFs as part of strategic investment planning, and improved transparency through consistent financial disclosure. Moreover, longitudinal and cross-sectoral comparative research is encouraged to deepen the understanding of SWF impacts globally.

Keywords: corporate performance; sovereign wealth fund acquisitions; corporate value Madrid Stock Exchange; comparative financial analysis Saudi Stock Exchange.

JEL Classification: G34; G15; L25; H54; P51; C10.

1. Background

This chapter offers an in-depth exploration of the relationship between sovereign wealth funds (SWFs) and firm value, drawing on established models and prior empirical research. It sheds light on how SWFs influence both firm valuation and financial performance, underlining the importance of understanding these dynamics in light of evolving global economic conditions.

The chapter seeks to contribute both theoretically and practically, encouraging further inquiry into this increasingly relevant domain.

Sovereign wealth funds are state-owned investment vehicles designed to generate long-term returns, support national economic goals, and foster diversification (Ang *et al.* 2009; IWG-SWF 2020; Morau and Aligishiev 2024). The link between SWFs and firm value is assessed through various lenses, including strategic

objectives, sectoral focus, and macroeconomic and political environments (Kotter and Lel 2011). Core goals of SWFs include maintaining sustainable financial yields, enhancing domestic economic development, and aligning with broader social and environmental standards (Cuervo-Cazurra *et al.* 2023; Bahoo *et al.* 2019). In this line, Habermann and Steindl (2025) confirm the power that have the sovereign funds in Europe to influence in the application of strategies of sustainability by part of the companies participated by the fund. Nevertheless, these funds must navigate substantial challenges, such as market volatility and global uncertainty, which demand advanced investment frameworks (Godsell, 2022). In a recent study, Megginson *et al.* (2025) argue that it would not be suitable create an American sovereign fund due to the markets of capitals are being efficient, ther is not a favourable political climate due to existent divisions and would be fiscally imprudent by the high debt that keeps the country together with the restrictions of budgetary character.

Economic and political contexts - both domestic and international - play a pivotal role in shaping SWF investment behavior (Bortolotti *et al.* 2010; Yu *et al.* 2021). Market dynamics, exchange rate fluctuations, and shifts in economic policy are among the primary drivers (Young, 2020). Political developments - ranging from new regulatory frameworks to geopolitical tensions - can amplify risk and necessitate strategic realignment (Gelb *et al.* 2014; Billio *et al.* 2021).

Likewise, macroeconomic indicators such as GDP growth, inflation levels, and employment trends significantly affect investment trajectories. SWFs tend to favor sectors demonstrating rapid growth in developing markets or long-term stability in more mature economies (Knill *et al.* 2012; Starks, 2023). Understanding these interrelated factors calls for ongoing assessment and nuanced analysis.

Sovereign wealth funds (SWFs) often prioritize investments in sectors such as energy, manufacturing, infrastructure, healthcare, and technology. Recently, they have also shown growing interest in emerging industries like biotechnology, renewable energy, and digital innovation (Megginson *et al.* 2015; Kartal, 2020). In fact, Moreau and Aligishiev (2024) analyse the sovereign fund of Saudi Arabia (Public Investment Fund, PFI) like a key instrument to attain the diversification of the investment further of the traditional energetic exports and going in in sectors like digital services and sport. These preferences are shaped by global economic growth projections, market demand, tech advancement, and regulatory directions (Kartal, 2020 and KPMG, 2020).

One of the main challenges SWFs faces is market instability, which tends to increase during periods of economic and political uncertainty (Wojcik, 2018; Hübel, 2022). Geopolitical issues - like rising tensions or armed conflicts - can trigger sudden drops in asset value and increased risk exposure. Also, regulatory frameworks - both domestic and international - complicate investment procedures and drive-up compliance costs (Hübel, 2022). Hasse *et al.* (2024) show empirically that the sovereign funds could reduce the apparition of monetary crises, by what conclude that the policymakers could develope the potential of the sovereign funds to manage foreign exchange risks.

Despite the risks, SWFs continue to identify valuable opportunities in high-tech sectors, clean energy, and infrastructure projects (Erkmen *et al.* 2020; Hsu *et al.* 2021). Innovations in robotics, additive manufacturing (like 3D printing), and gene therapies are viewed as promising avenues that not only deliver financial returns but also support broader developmental goals (Ward *et al.* 2022; Dimitropoulos *et al.* 2020).

Various researchers have assessed the implications of SWF involvement on corporate performance, mainly focusing on aspects like profitability, ROI, revenue expansion, and capital structure (Young, 2020). For instance, Bahoo (2020) highlighted significant connections between SWF funding and changes in stock price and market value. Similarly, Dewenter *et al.* (2010) found that firms tend to experience an uptick in value right after SWF investment announcements, suggesting a strong positive market signal associated with such investments.

Kartal (2020) explored how sovereign wealth fund (SWF) investments influence a firm's capital structure and dividend policies, reporting notable shifts in both ownership distribution and strategic direction following investment. In a related study Hübel (2022) focused on corporate ownership changes, concluding that SWF participation can impact the performance not only of recipient firms, but also of firms outside the investment scope. By comparing companies backed by SWFs to those without such support, Hübel (2022) and Sias *et al.* (2001) identified clear performance gaps - reinforcing the idea that SWF involvement plays a decisive role in shaping corporate outcomes.

Further, Erkmen *et al.* (2020) assessed how SWF investment affects stock price behavior and market volatility. Their findings suggest that such interventions often lead to increased fluctuations in both pricing and trading volume, potentially disturbing market equilibrium and altering investor sentiment. On another front, Cuervo-Cazurra *et al.* (2023) looked into the implications of SWF stakes on internal corporate policies and strategic outlooks. Their analysis revealed that SWFs can significantly shape firms' future directions - modifying

growth trajectories, investment preferences, and even ownership frameworks - which in turn influences competitiveness and overall firm performance.

Taken together, these studies offer valuable insight into how sovereign wealth funds act as powerful financial and strategic actors in global markets, reshaping not just the companies they invest in, but also the broader investment landscape.

This study contributes meaningfully by offering a cross-market evaluation of the effects of sovereign wealth fund (SWF) acquisitions on firm performance and value, focusing specifically on two contrasting financial ecosystems: the Madrid Stock Exchange and the Saudi Stock Exchange. Through this comparative lens, the research brings forward several contributions:

- Contextual Insight: It deepens the understanding of how SWF participation affects firm-level financial indicators and shareholder interests across distinct regulatory and economic environments.
- Strategic Value for Investors: The findings may assist institutional and private investors in assessing how SWF-backed firms perform in markets with different risk profiles and governance norms.
- Guidance for Policymakers: It provides practical takeaways for regulators and public sector actors seeking to evaluate or encourage SWF activity within their jurisdictions, while remaining mindful of potential structural and strategic trade-offs.
- Bridging a Research Gap: By comparing developed and emerging market responses to SWF involvement, the study addresses a notable gap in the literature that has largely treated these markets separately or in isolation.

Overall, this study adds both empirical depth and practical relevance to ongoing debates around sovereign wealth strategies and their broader implications for corporate governance and market performance.

2. Methodology

This study aims to explore the influence of sovereign wealth fund (SWF) acquisitions on firm value and financial performance across international markets. Particular emphasis is placed on understanding how the nationality and type of company mediate this relationship. The research also seeks to generate practical recommendations to strengthen the linkage between SWF investments and firm outcomes. Furthermore, it intends to add new perspectives to the ongoing discourse on the strategic role of SWFs in shaping corporate value and financial dynamics.

To address these goals, the study puts forward the following hypotheses:

1.There is a positive association between sovereign wealth fund (SWF) investments and corporate financial performance, as measured by return on assets (ROA), liquidity ratios, financial leverage, and profit margins.

2.There is a positive relationship between SWF investments and firm value, represented by stock price levels.

3.The company's nationality moderates the relationship between SWF investments and both financial performance and firm value.

Based on the study's objectives, the following research questions are posed:

- To what extent do sovereign wealth fund (SWF) investments influence a company's financial performance?
- Does the nationality of the company play a moderating role in the relationship between SWF investments and financial performance?
- How do SWF investments impact a company's market value?

2.1. Research Population and Sample

The research population encompasses firms listed on both the Madrid Stock Exchange and the Saudi Stock Exchange (Tadawul) that have received equity investments from global sovereign wealth funds (SWFs). The study focuses on evaluating the changes in financial performance indicators before and after these investments.

The Madrid Stock Exchange, founded in 1831 and headquartered in Spain's capital, is a major European financial center. It accommodates a broad mix of domestic and international companies and plays a central role in supporting Spain's capital markets and economic development.

The Saudi Stock Exchange (Tadawul), established in 2007, is the leading securities market in Saudi Arabia and the largest in the Middle East. It hosts a diverse portfolio of Saudi-listed firms and serves as a key channel for both domestic and foreign investments, reflecting the country's economic dynamism and reform-oriented agenda.

The research sample includes twenty companies, evenly split between the two stock exchanges. These firms represent various economic sectors and were selected based on their receipt of SWF investments ranging from 3% to 17% of equity shares during the period from 2008 to 2019. Further details, including company names and sectoral classifications, are provided in Appendix 1.

2.2 Method and Data Handling

To explore how sovereign wealth fund (SWF) acquisitions interact with corporate value, this study employs an integrated methodology that leans heavily on both numerical assessment and interpretive context. Rather than relying on a single analytical lens, the research draws from a combination of statistical techniques and cross-period comparisons to ensure that observed outcomes are both consistent and contextually meaningful.

Data collection centers on financial reports from selected firms, covering a time window before and after SWF engagement. Key indicators such as profitability margins, liquidity strength, debt reliance, and capital efficiency are extracted and analyzed.

The study utilizes:

- Descriptive statistics (mean values) to track overall shifts in performance,
- Standard deviation to capture variability across firms,
- Paired sample t-tests to test statistical significance in the pre- and post-investment phases, and
- Regression modeling to estimate the weight and direction of SWF influence on performance metrics.

Rather than isolating metrics in a vacuum, the study contextualizes them within broader strategic movements in both market environments, allowing for a more grounded interpretation of how and where SWF capital leaves a measurable footprint.

The financial records used in this analysis were obtained from verified public databases and company disclosures. These records included a range of financial indicators and average share prices for the selected firms listed on the Madrid Stock Exchange, covering a span of six years - three years prior to and three years following SWF acquisition.

To streamline the analysis, the data were filtered and structured to capture trends in performance over time. Appendix 2 provides a full breakdown of the core financial ratios for each company across this six-year period. As part of the preliminary phase, average values were computed for the indicators both before and after the acquisition events. These averages formed the basis for evaluating whether meaningful changes occurred.

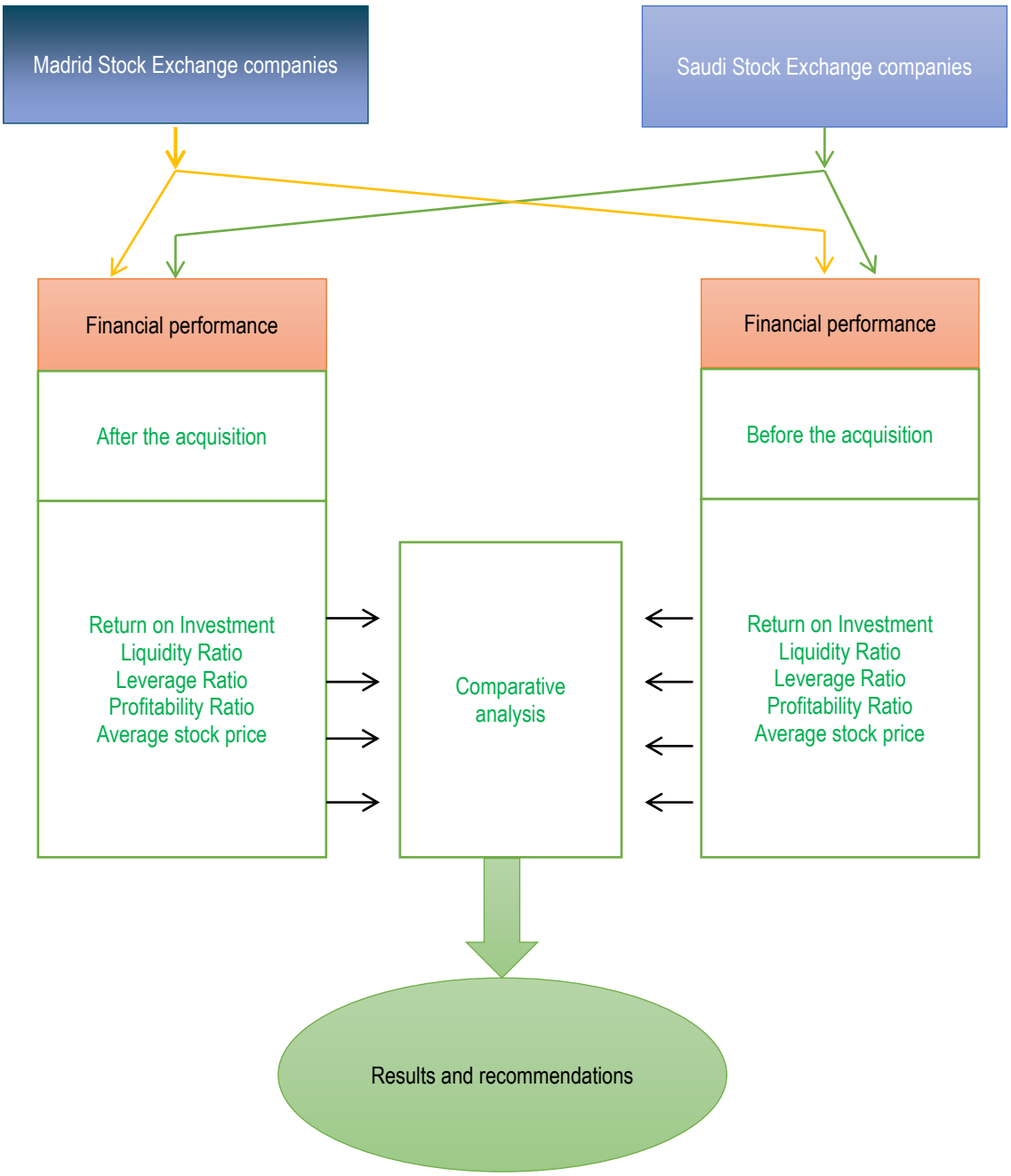
The differences in pre- and post-acquisition performance were then calculated and summarized to enable statistical testing. Appendix 3 contains the comparative mean scores for each of the key financial metrics, offering a condensed view of how firm-level indicators shifted in response to sovereign wealth fund activity.

2.3 Research Model

The research model is a fundamental tool for organizing the study and identifying the variables and their relationships in a systematic and logical manner. It helps guide the researcher and clearly explain the research concept. Below is the research model.

1. Independent Variables:
   - Sovereign Wealth Fund (SWF) Investments
2. Dependent Variables:
   - Financial Performance (measured by return on assets, liquidity ratio, financial leverage, profit margin)
   - Firm Value (measured by stock price)
3. Moderating Variables:
   - Nationality of the Company
4. Hypothesized Relationships:
   - Positive relationship between SWF investments and financial performance.
   - Positive relationship between SWF investments and firm value.
   - Influence of company nationality on the relationship between SWF investments and both financial performance and firm value. This model provides a structured framework for the study, facilitating a clear understanding of the research objectives and the relationships being investigated.

Figure 1. The research model



Source: the figure prepared by the author

3. Results

3.1. Results of the Paired T-Test for Financial Performance Indicators

3.1.1. For Saudi Companies (Y1)

The financial performance indicators include the following ratios: Return on Investment (Y1.1); Liquidity Ratio (Y1.2); Financial Leverage (Y1.3); Profitability Ratio (Y1.4);Average Stock Price (Y1.5). The time series spans 6 years, divided into three years before and three years after the sovereign wealth fund investments. The following table summarizes the results of these tests. The table below is the results of the paired T-test for the financial performance indicators.

Table 1. Paired T-test for financial performance indicators for Saudi companies:

Variable	Mean Before Investment	Standard Deviation Before Investment	Mean After Investment	Standard Deviation After Investment	t-value	Sig.
$_{1.1}$Y	18.83	2.8028	20.05	4.121	1.273-	0.235
$_{1.2}$Y	1.839	3814	1.494	0.03718	52.748	0
$_{1.3}$Y	0.714	0.0397	0.642	0.1089	3.179	0.011
$_{1.4}$Y	17.593	2.9827	18.527	4.0938	1.06-	0.317
1.5Y	48.486	56.6036	47.716	34.6037	0.088	0.932

Source: the table prepared by the author based on analyses results

Based on the data presented above, the results can be summarized as follows:

- Return on Investment (Y1.1): Increased from 18.83 (SD = 2.80) to 20.05 (SD = 4.12) after the investment, but the slight increase was not statistically significant (T = -1.273, Sig. = 0.235).
- Liquidity Ratio (Y1.2): Decreased from 1.83 (SD = 0.038) to 1.49 (SD = 0.037) after the investment, with a significant decrease (T = 52.748, Sig. = 0.000).
- Financial Leverage (Y1.3): Decreased from 0.7140 (SD = 0.0397) to 0.6420 (SD = 0.1089) after the investment, with a statistically significant decrease (T = 3.179, Sig. = 0.011).
- Profitability Ratio (Y1.4): Increased from 17.593 (SD = 2.982) to 18.527 (SD = 4.093) after the investment, but the slight increase was not statistically significant (T = -1.060, Sig. = 0.317).
- Average Stock Price (Y1.5): Decreased from 48.486 (SD = 56.603) to 47.716 (SD = 34.603) after the investment, with no statistically significant change (T = 0.088, Sig. = 0.932).

The results indicate significant decreases in the liquidity ratio and financial leverage after the investment, while no statistically significant changes were observed in the return on investment, profitability ratio, and average stock price.

3.1.2. For Spanish Companies (Y2)

The financial performance indicators include the following ratios: Return on Investment (Y2.1); Liquidity Ratio (Y2.2); Financial Leverage (Y2.3); Profitability Ratio (Y2.4); Average Stock Price (Y2.5). The following table summarizes the results of the paired T-test for the financial performance indicators.

Table 2. Paired T-test for financial performance indicators in Spanish companies

Variable	Mean Before Investment	Standard Deviation Before Investment	Mean After Investment	Standard Deviation After Investment	t-value	Sig.
Y2.1	14.105	0.8037	13.678	2.4766	0.465	0.653
Y2.2	1.75	0.0577	1.653	0.2724	1.06	0.317
Y2.3	0.8	0.0362	0.899	0.0877	-3.681	0.005
Y2.4	11.33	0.5349	10.759	2.6892	0.599	0.564
Y2.5	15.159	19.8267	18.543	26.318	-1.269	0.236

Source: the table prepared by the author based on analyses results

Based on the data presented in the table above, the following observations can be made:

- Y2.1 (Return on Investment): The mean decreased from 14.105 to 13.678, while the standard deviation increased from 0.8037 to 2.4766 after the investment. However, this change was not statistically significant (t = 0.465, p = 0.653).
- Y2.2 (Liquidity Ratio): Before the investment, the mean was 1.75 with a standard deviation of 0.0577. After the investment, the mean decreased to 1.653 with a slightly higher standard deviation of 0.2724. This change was not statistically significant (t = 1.06, p = 0.317).
- Y2.3 (Financial Leverage): There was a statistically significant decrease in the mean financial leverage from 0.8 to 0.899 (t = -3.681, p = 0.005). The standard deviation slightly increased from 0.0362 to 0.0877 after the investment.
- Y2.4 (Profitability Ratio): The mean decreased from 11.33 to 10.759, and the standard deviation increased from 0.5349 to 2.6892. However, this change was not statistically significant (t = 0.599, p = 0.564).

- Y2.5 (Average Stock Price): Although the mean stock price increased from 15.159 to 18.543 after the investment, and the standard deviation increased from 19.8267 to 26.318, the change was not statistically significant (t = -1.269, p = 0.236).

Overall, while there were some changes in the means and standard deviations of the financial performance indicators after the sovereign wealth fund investments, most of these changes were not statistically significant. However, there was a significant decrease in the financial leverage ratio after the investment.

Since most of the observed differences (increases or decreases) in the dependent variables were not statistically significant for both Saudi and Spanish companies, it is likely that these changes occurred due to administrative actions. To further understand these changes and their relationship with the independent variable (sovereign wealth fund investments), future regression analyses will be conducted.

3.2. Regression Analysis and Hypothesis Testing

3.2.1. For Saudi Companies

The researcher used a regression model to evaluate the impact of sovereign wealth fund (SWF) investments on the financial performance indicators of Saudi companies, with a significance level set at 0.05. The table below details the tests, categorized by financial indicators.

Table 3. Details of the tests, categorized by financial indicators.

Independent Variable	Return on Investment			Liquidity ratio			Financial Leverage			Profitability Ratio		
	B	t. test	.Sig	B	t. test	.Sig	B	t. test	.Sig	B	t. test	.Sig
Regression Constant	0.242	3.792	0.005	1.156-	1.185-	0.27	0.944	1.325	0.27	0.213	2.195	0.059
Sovereign Fund Investment	-.587	1.21-	0.261	11.587	1.564	0.156	5.435-	1.006-	0.156	0.413-	0.562-	0.59
Details												
Correlation Coefficient (R)	0.393			0.484			0.335			0.195		
Coefficient of Determination (R^2)	0.155			0.234			0.112			0.038		
Calculated F Value	1.465			2.446			1.011			0.315		
Degrees of Freedom	9			9			9			9		
Sig. Level			0.261			0.156			0.344			0.59

Source: the table prepared by the author based on analyses results

Based on the results from the table above, the following observations can be made:

A. Return on Investment (Y1.1) for Saudi Companies:

- The coefficient of determination (R^2) is 0.155, indicating that SWF investments explain only 15% of the variance in return on investment.
- The correlation coefficient (R) is 0.393, indicating a weak correlation.
- The t-test showed a value of -1.210 with a significance level of 0.261, which is not statistically significant.
- The regression coefficient of -0.587 indicates a non-significant negative effect, suggesting that SWF investments do not significantly impact the return on investment for Saudi companies.

B. Liquidity Ratio:

- The coefficient of determination (R^2) is 0.234, indicating that SWF investments explain 23.4% of the change in the liquidity ratio.
- The correlation coefficient (R) is 0.484, indicating a significant positive correlation.
- However, the calculated t-value is 1.564 with a significance level of 0.156, indicating no statistical significance.
- The regression model, with a coefficient of 11.58, shows no significant effect of SWF investments on the liquidity ratio.

C. Financial Leverage:

- The coefficient of determination (R^2) is 0.112, indicating that the independent variable explains 11.2% of the variance in the dependent variable.
- The correlation coefficient (R) is 0.335, indicating a significant positive correlation at the 0.05 significance level between SWF investments and financial leverage.

- The calculated t-value is 1.006 with a significance level of 0.344, indicating partial non-significance of the model.

- The regression coefficient (-5.435) is negative but not significant. Thus, the regression model can be derived as follows: Y1.3 = 0.944 - 5.435. Therefore, there is no significant effect between SWF investments and financial leverage.

D. Profitability Ratio:

- The coefficient of determination (R^2) is 0.038, indicating that the independent variable explains 3.8% of the variance in the dependent variable.

- The correlation coefficient (R) between the independent variable and the profitability ratio is 0.195, indicating a non-significant correlation at the 0.05 significance level. This means there is a weak positive correlation between SWF investments and the profitability ratio.

- The calculated t-value of -0.562 at a significance level of 0.590 indicates partial non-significance of the model.

- The effect of SWF investments on the profitability ratio, represented by the regression coefficient (-0.413), is negative but not significant. Thus, the regression model can be expressed as follows: Profitability Ratio (Y1.4) = 0.213 - 0.413. The regression analysis and the derived model for the effect of SWF investments indicate non-significance at the 0.590 significance level, which is higher than the 0.05 threshold. Therefore, there is no significant impact of SWF investments on the profitability ratio.

3.2.2. For Spanish Companies

A regression model was also used for the Spanish companies. The table below details the tests, categorized by financial indicators.

Table 4. Details of the tests, categorized by financial indicators.

Independent Variable	Return on Investment			liquidity ratio			Financial Leverage			Profitability Ratio		
	B	t. test	.Sig	B	t. test	.Sig	B	t. test	.Sig	B	t. test	.Sig
Regression Constant	0.203	5.785	0	0.198	5.317	0.001	0.136	1.645	0.139	0.178	2.66	0.029
Sovereign Fund Investment	0.043-	0.164-	0.874	0.326-	1.152-	0.283	0.136	0.242	0.815	0.543	1.068	0.317
Details							0.136					
Correlation Coefficient (R)	0.058			0.377			0.136			0.353		
Coefficient of Determination (R^2)	0.003			0.142			0.136			0.125		
Calculated F Value	0.027			1.326			0.136			1.14		
Degrees of Freedom	9			9			9			9		
Sig. Level			0.874			0.283	0.136		0.815			0.317

Source: the table prepared by the author based on analyses results
Note: All tables in the research were prepared by the researcher based on the outputs of the SPSS program.

The results above indicate the following:

A. Return on Investment (ROI):

- Coefficient of Determination (R^2): The R^2 is very low at 0.003, indicating that only 0.3% of the variance in ROI can be explained by SWF investments.

- Correlation Coefficient (R): The R is 0.058, indicating a very weak positive correlation between SWF investments and ROI.

- t-Test:** The t-value for SWF investments is -0.164, with a p-value (Sig.) of 0.874, which is much higher than the significance level of 0.05. This indicates that the relationship between SWF investments and ROI is not statistically significant.

- Regression Equation:The regression equation is as follows: ROI = 0.203 - 0.043 (SWF investments). Overall, these results suggest no significant relationship between SWF investments and ROI for Spanish companies.

B. Liquidity Ratio:

- Coefficient of Determination (R^2): The R^2 is 0.142, indicating that approximately 14.2% of the variance in the liquidity ratio can be explained by SWF investments.

- Correlation Coefficient (R): The R is 0.377, indicating a moderate positive correlation between SWF investments and the liquidity ratio.

- t-Test:The t-value for SWF investments is -1.152, with a corresponding p-value of 0.283. Since the p-value is greater than the significance level of 0.05, the relationship between SWF investments and the liquidity ratio is not statistically significant. Therefore, despite the moderate positive correlation, this relationship is not statistically significant.

C. Financial Leverage:**

- The results also indicate no significant relationship between SWF investments and financial leverage in Spanish companies, as evidenced by the non-significant p-value of 0.815.

- Correlation Coefficient (R):** The R is 0.085, indicating a very weak positive correlation.

- Coefficient of Determination (R^2):** The R^2 is 0.007, indicating that only 0.7% of the variance in financial leverage can be explained by SWF investments. Thus, the analysis suggests that SWF investments have a minimal impact on the financial leverage of Spanish companies.

D. Profitability Ratio:**

-Coefficient of Determination (R^2):** The R^2 is 0.125, indicating that 12.5% of the variance in the profitability ratio can be explained by SWF investments.

- Correlation Coefficient (R):** The R between SWF investments and the profitability ratio is 0.353, indicating a moderate positive correlation.

- t-Test:** The t-value for SWF investments is 1.068, with a significant level of 0.317. The calculated F-value is 1.14, with a significance level of 0.317, indicating that the relationship is not statistically significant at the 0.05 level. Therefore, while there is a moderate positive correlation between SWF investments and the profitability ratio for Spanish companies, this relationship is not statistically significant.

3.3. Impact of Sovereign Wealth Fund Investments on Average Stock Price

The researcher conducted a linear regression analysis to study the impact of sovereign wealth fund (SWF) investments on the average stock price. The table below presents the regression results and the relationship between the independent variable (SWF investments) and the dependent variable (average stock price) for Saudi and Spanish companies.

Table 5. Relationship between Variables

Independent Variable	Saudi Companies			Spanish Companies		
	B	t. test	.Sig	B	t. test	.Sig
Regression Constant	0.03	1.509	0.17	0.203	5.785	0
Sovereign Fund Investment	0.913	5.989	0	0.043-	0.164-	0.874
Details						
Correlation Coefficient (R)	0.904			0.058		
Coefficient of Determination (R^2)	0.818			0.003		
Calculated F Value	35.872			0.027		
Degrees of Freedom	9			9		
Sig. Level			0			0.874

Source: the table prepared by the author based on analyses results

Based on the results from the table above, the following observations can be made:

A. For Saudi Companies:

- Significant Impact: SWF investments have a significant impact on the average stock price of Saudi companies. The coefficient of determination (R^2) is 0.818, indicating that approximately 81.8% of the variance in the average stock price can be explained by changes in SWF investments. This high R^2 value suggests a strong relationship between SWF investments and the average stock price of Saudi companies.

- Strong Positive Correlation: The correlation coefficient (R) is 0.904, indicating a very strong positive correlation between the two variables. As SWF investments increase, the average stock price of Saudi companies tends to rise as well.

B. For Spanish Companies:

- Strong Positive Correlation: The results indicate a strong positive correlation (R = 0.883) between SWF investments and the average stock price of Spanish companies.

- Significant Impact: The coefficient of determination (R^2 = 0.779) indicates that approximately 77.9% of the variance in the average stock price can be explained by SWF investments. The calculated F-value (28.197) is statistically significant ($p < 0.001$), indicating that the regression model is statistically significant. Therefore, it can be concluded that SWF investments have a significant positive impact on the average stock price of Spanish companies.

4. Discussion of Hypotheses

First Hypothesis: "There is a positive relationship between the company's financial performance (measured by return on investment, liquidity ratio, financial leverage, and profitability ratio) and sovereign wealth fund (SWF) investments in it." Based on the analysis results mentioned above, the researcher rejects the first hypothesis in its affirmative form (for both Saudi and Spanish companies) and supports the alternative hypothesis, which states that "there is no positive relationship between the company's financial performance (measured by return on investment, liquidity ratio, financial leverage, and profitability ratio) and SWF investments in it."

Second Hypothesis: The regression analysis results provide strong evidence to support the hypothesis that there is a significant positive relationship between SWF investments and the average stock price of Saudi companies. Overall, these results indicate no significant relationship between SWF investments and the return on investment for both Saudi and Spanish companies.

Third Hypothesis: The third hypothesis posited that the nationality of the company affects the relationship between financial performance and SWF investments in it. Based on the results mentioned in the previous sections, which can be summarized as follows: (There is no statistically significant relationship between the company's financial performance and SWF investments in it. This conclusion is consistent for both Saudi and Spanish companies. A positive relationship was observed between the company's value and SWF investments in it. This conclusion is consistent for both Saudi and Spanish companies). These results lead to the rejection of the third hypothesis in its original form and its acceptance in its negative form. Therefore, the hypothesis becomes: "The nationality of the company does not affect the relationship between financial performance and SWF investments in it."

5. Results and Recommendations

The study concluded that sovereign wealth fund (SWF) investments have a minimal impact on the financial performance of Saudi and Spanish companies but significantly affect the average stock price. In Saudi Arabia, these investments explain 81.8% of the changes in stock value, while in Spain, they explain 77.9%. Financial performance indicators were not significantly affected, and the nationality of the company did not influence the relationship between financial performance and SWF investments.

Recommendations:

- Companies should explore factors that enhance the impact of SWF investments on financial performance indicators, focusing on increasing returns on investment.
- Management should consider the effect of investments on stock value to improve market value.
- Additional studies are recommended to explore other factors that may affect financial performance and to increase collaboration with SWFs as part of the investment strategy.
- Enhancing transparency and regular financial reporting makes companies more attractive for investment.
- Long-term studies and comparative analysis across industries and countries should be conducted to better understand the impact of SWF investments.

Credit Authorships Contribution statement

All authors have contributed equally to all aspects of the research and writing of this article and share equal responsibility for the content of this article

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

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Declaration of Use of Generative AI and AI-Assisted Technologies

The authors declared that they have used generative AI and assisted Technologies solely in the process of correcting and improving the language in some sentences as assist with translation process during the preparation of this manuscript.

References

[1] Ang, A., Goetzmann, W. N., and Schaefer, S. M. (2009). Evaluation of active management of the Norwegian Government Pension Fund - Global. *Columbia Business School Research Paper No. 09-45*. Retrieved from: https://www.regjeringen.no/globalassets/upload/fin/statens-pensjonsfond/eksterne-rapporter-og-brev/ags-report.pdf

[2] Bahoo, S., Hassan, M. K., Paltrinieri, A. and Khan, A. (2019). A model of the Islamic sovereign wealth fund. *Islamic Economic Studies*, 27(1): 2–22. DOI: http://dx.doi.org/10.1108/ies-05-2019-0003

[3] Billio, M., Costola, M., Hristova, I., Latino, C., and Pelizzon, L. (2021). Inside the ESG ratings: (Dis)agreement and performance. *Corporate Social Responsibility and Environmental Management*, 28(5): 1426-1445. DOI: http://dx.doi.org/10.2139/ssrn.3659271

[4] Bortolotti, B., Fotak, V., Megginson, W. L., and Miracky, W. F. (2010). Sovereign wealth fund investment patterns and performance. *Journal of Sovereign Wealth Fund Research*, 1(1): 5-21. Available at: https://EconPapers.repec.org/RePEc:fem:femwpa:2009.22

[5] Cuervo-Cazurra, A., Grosman, A., and Megginson, W. L. (2023). A review of the internationalization of state-owned firms and sovereign wealth funds: Governments' nonbusiness objectives and discreet power. *Journal of International Business Studies*, 54(1): 78-106.

[6] Dewenter, K. L., Han, X. M., and Paul H. (2010). Firm values and sovereign wealth fund investments. *Journal of Financial Economics*, 98(2): 256-258. DOI: https://doi.org/10.1016/j.jfineco.2010.05.006

[7] Dimitropoulos, P., Koronios, K., Thrassou, A., and Vrontis, D. (2020). Cash holdings, corporate performance and viability of Greek SMEs: Implications for stakeholder relationship management. *EuroMed Journal of Business*, 15(3): 333-348. DOI: https://doi.org/10.1108/emjb-08-2019-0104

[8] Erkmen, T., Günsel, A., and Altındağ, E. (2020). The role of innovative climate in the relationship between sustainable IT capability and firm performance. *Sustainability*, 12(10): 4058. DOI:https://doi.org/10.3390/su12104058

[9] Gelb, A., Tordo, S., and Halland, H. (2014). Sovereign wealth funds and long-term development finance: Risks and opportunities. *World Bank Policy Research Working Paper No. 6776*. Available at: https://ssrn.com/abstract=2394324

[10] Godsell, D. (2022). Financial reporting consequences of sovereign wealth fund investment. *Contemporary Accounting Research*, 39(3): 2090-2129. DOI: https://doi.org/10.1111/1911-3846.12776

[11] Gupta, H., Kumar, A., and Wasan, P. (2021). Industry 4.0, cleaner production and circular economy: An integrative framework for evaluating ethical and sustainable business performance of manufacturing organizations. *Journal of Cleaner Production*, 295, 126253. DOI: 10.1016/j.jclepro.2021.126253

[12] Habermann, F. and Steindl, T. (2025). Stock market reactions to a sovereign wealth fund's broad-based public sustainability engagement: European evidence, *Journal of Economic Behavior & Organization, Vol 231,* 106915. DOI: https://doi.org/10.1016/j.jebo.2025.106915

[13] Hasse, J-B., Lecourt, C. and Siagh, S. (2024). Setting up a sovereign wealth fund to reduce currency crises, *Emerging Markets Review, Vol 62*. DOI: https://doi.org/10.1016/j.ememar.2024.101191

[14] Hsu, C. C., Quang-Thanh, N., Chien, F., Li, L., and Mohsin, M. (2021). Evaluating green innovation and performance of financial development: mediating concerns of environmental regulation. *Environmental Science and Pollution Research*, 28(40): 57386-57397. DOI: https://doi.org/10.1007/s11356-021-14499-w

[15] Hübel, B. (2022). Do markets value ESG risks in sovereign credit curves? *The Quarterly Review of Economics and Finance*, 85: 134-148. DOI: https://doi.org/10.1016/j.qref.2020.11.003

[16] Kartal, M. T. (2020). The behavior of Sovereign Credit Default Swaps (CDS) spread: evidence from Turkey with the effect of Covid-19 pandemic. DOI: http://dx.doi.org/10.2139/ssrn.3642652

[17] Knill, A. M., Lee, B. S., and Mauck, N. (2012). Sovereign wealth fund investment and the return-to-risk trade-off. *Journal of Financial Economics*, 105(2): 351-366. DOI: http://dx.doi.org/10.2139/ssrn.3943310

[18] Kotter, J., and Lel, U. (2011). Friends or foes? Target selection decisions of sovereign wealth funds and their consequences. Journal of Financial Economics, 101(2), 360–381. Available at: https://pure.psu.edu/en/publications/friends-or-foes-target-selection-decisions-of-sovereign-wealth-fu?utm_source=chatgpt.com

[19] Megginson, W. L., and Fotak, V. (2015). Rise of the fiduciary state: A survey of sovereign wealth fund research. *Journal of Economic Surveys*, 29(4): 733-778. DOI: http://dx.doi.org/10.2139/ssrn.2432623

[20] Megginson,W. L., Zhou, X. Y., and Gholson, R. L. (2025). The case against a US sovereign wealth fund. *Financial Review,* 60: 5–12. DOI: https://doi.org/10.1111/fire.12422

[21] Moreau, F. and Aligishiev, Z. (2024). Diversification in sight? A macroeconomic assessment of Saudi Arabia's vision 2030, International Economics, Volume 180, DOI:https://doi.org/10.1016/j.inteco.2024.100538

[22] Sias, R. W., Starks, L. T., and Titman, S. (2001). The Price Impact of Institutional Trading. *SSRN Electronic Journal*, 79: 1-27. DOI: http://dx.doi.org/10.2139/ssrn.283779

[23] Starks, L. T. (2023). Presidential address: Sustainable finance and ESG issues—Value versus values. *The Journal of Finance*, 78(4): 1837-1872. DOI: https://doi.org/10.1111/jofi.13255

[24] Ward, C., Brill, F., and Raco, M. (2022). State capitalism, capitalist statism: Sovereign wealth funds and the geopolitics of London's real estate market. *Environment and Planning A: Economy and Space*, 55(3): 742–759. Available at: https://journals.sagepub.com/doi/10.1177/0308518X221102157?icid=int.sj-abstract.citing-articles.22&utm_source=chatgpt.com

[25] Young, K. E. (2020). Sovereign risk: Gulf sovereign wealth funds as engines of growth and political resource. *British Journal of Middle Eastern Studies*, 47(1): 96-116. DOI:https://doi.org/10.1080/13530194.2020.1714866

[26] Yu, Y., Huo, B., and Zhang, Z. J. (2021). Impact of information technology on supply chain integration and company performance: evidence from cross-border e-commerce companies in China. *Journal of Enterprise Information Management*, 34(1): 460-489. DOI: https://doi.org/10.1108/jeim-03-2020-0101

[27] International Working Group of Sovereign Wealth Funds. (2020). Sovereign Wealth Funds: Generally Accepted Principles and Practices "The Santiago Principles". Retrieved from file:///C:/Users/ferna/Downloads/Santiago%20Principles.pdf

[28] KPMG. (2020, February). Mainland China and Hong Kong 2019 review: IPOs and other market trends. Retrieved from https://assets.kpmg.com/content/dam/kpmg/cn/pdf/en/2019/06/mainland-china-and-hong-kong-2019-mid-year-review.pdf

Appendices

Appendix 1. Study Sample Details

Madrid Companies

	Company Name	Company Activity	Sovereign Fund Invested	Investment Date	Investment Ratio
1	Banco Santander	Banking and Financial Services	Qatar Investment Authority, Government of Singapore Investment Corporation (GIC)	2008	10%
2	Telefónica	Telecommunications	Government of Singapore Investment Corporation (GIC)	2012	10% - 12%
3	Inditex	Retail	Qatar Investment Authority (QIA)	2010	10% - 12%
4	Repsol	Oil and Gas Exploration	Government of Singapore Investment Corporation (GIC)	2011	10% - 15%
5	BBVA	Banking and Financial Services	Qatar Investment Authority (QIA)	2014	15% - 16%
6	Iberdrola	Electricity Generation	Government of Singapore Investment Corporation (GIC)	2007	13% - 15%
7	Mapfre	Insurance Services	Qatar Investment Authority (QIA)	2014	10% - 12%
8	Ferrovial	Infrastructure and Transportation	Qatar Investment Authority (QIA)	2013	15% - 17%
9	CaixaBank	Banking and Financial Services	Qatar Investment Authority (QIA)	2014	15% - 17%
10	Red Eléctrica de España	Electricity Transmission	Government of Singapore Investment Corporation (GIC)	2015	13% - 15%

Saudi Companies

	Company Name	Main Activity	Investing Sovereign Fund	Investment Date	Investment Ratio
1	Saudi Aramco	Oil & Gas	Saudi Public Investment Fund	2019	5%
2	Al Rajhi Financial	Financial Services	Norwegian Government Pension Fund	2020	0.03
3	SABIC	Chemical Industries	Global Investment Corp.	2018	0.07
4	Saudi Telecom Company	Telecommunications	Singapore Investment Fund	2017	0.04
5	Saudi Arabian Airlines	Aviation	Qatar Investment Authority	2019	0.06
6	Saudi Stock Exchange	Financial Services	China Investment Corporation	2018	0.02
7	Al Ahli Commercial Bank	Banking Services	UAE Sovereign Wealth Fund	2020	0.05
8	Saudi Cement	Construction Industries	Kuwait Investment Authority	2016	0.03
9	Saudi Electricity Company	Electrical Energy	Saudi Sovereign Wealth Fund	2017	0.04
10	Zamil Chemical Industries	Chemical Industries	Qatar Investment Authority	2019	0.02

Appendix 2. Preliminary Data

Data on Madrid Stock Exchange Companies

1	**Banco Santander**							
	Ratio Type	2005	2006	2007	2008	2029	2010	2011
	Return on Investment (%)	15	14	16		17	18	19
	Liquidity Ratio	1.5	1.6	1.7		1.8	1.9	2
	Leverage Ratio	0.6	0.7	0.8		0.9	0.85	0.8
	Profitability Ratio (%)	10	11	12		13	14	15
	Average stock price	1.19	1.19	2.16		4.88	3.49	3.43
2	**Telefónica**							
	Ratio Type	2017	2018	2019	2012	2021	2022	2023
	Return on Investment (%)	12.345	13.21	12.854		14.567	15.678	16.902
	Liquidity Ratio	1.786	1.695	1.923		2.067	2.108	2.348
	Leverage Ratio	0.742	0.817	0.839		0.912	0.831	0.798
	Profitability Ratio (%)	9.987	10.341	10.789		11.489	12.465	13.127
	Average stock price	7.93	8.15	6.67		5.19	4.19	3.91
3	**Refineries Company**							
	Ratio Type	2017	2018	2019	2010	2021	2022	2023
	Return on Investment (%)	13.456	14.789	15.234		12.543	11.987	10.876
	Liquidity Ratio	1.752	1.819	1.685		1.574	1.482	1.396
	Leverage Ratio	0.815	0.798	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	11.234	12.543	12.987		10.765	9.876	8.543
	Average stock price	65.56	60.19	70.71		88.13	89.93	87.73
4	**Repsol**							
	Ratio Type	2017	2018	2019	2011	2021	2022	2023
	Return on Investment (%)	15.234	14.567	13.876		12.543	11.789	10.987
	Liquidity Ratio	1.819	1.752	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	12.543	11.234	10.765		9.876	8.543	7.234
	Average stock price	9.15	10.22	11.1		17.91	14.77	15.2
5	**BBVA**							
	Ratio Type	2011	2012	2013	2014	2015	2016	2017
	Return on Investment (%)	12.543	11.987	13.456		14.789	15.234	16.543
	Liquidity Ratio	1.685	1.752	1.819		1.924	2.037	2.175
	Leverage Ratio	0.832	0.798	0.815		0.735	0.679	0.621
	Profitability Ratio (%)	10.765	9.876	11.234		12.543	13.987	15.234
	Average stock price	5.77	4.13	6.15		8.24	9.21	7.32
6	**Iberdrola**							
	Ratio Type	2004	2005	2006	2007	2008	2009	2010
	Return on Investment (%)	14.789	15.234	13.456		12.543	11.987	10.876
	Liquidity Ratio	1.752	1.819	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	11.234	10.765	12.543		9.876	8.543	7.234
	Average stock price	4.81	4.33	5.59		10.47	8.91	8.26
7	**Mapfre**							
	Ratio Type	2011	2012	2013	2014	2015	2016	2017
	Return on Investment (%)	13.456	14.789	15.234		12.543	11.987	10.876

	Liquidity Ratio	1.819	1.752	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	12.543	11.234	10.765		9.876	8.543	7.234
	Average stock price	1.06	1.19	1.11		2.98	2.88	2.02
8	**Ferrovial**							
	Ratio Type	2010	2011	2012	2013	2014	2015	2016
	Return on Investment (%)	14.789	15.234	13.456		12.543	11.987	10.876
	Liquidity Ratio	1.752	1.819	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	11.234	10.765	12.543		9.876	8.543	7.234
	Average stock price	26.61	27.69	28.89		40.98	33.17	28.62
9	**CaixaBank**							
	Ratio Type	2011	2012	2013	2014	2015	2016	2017
	Return on Investment (%)	15.234	14.789	13.456		12.543	11.987	10.876
	Liquidity Ratio	1.819	1.752	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	12.543	11.234	10.765		9.876	8.543	7.234
	Average stock price	5.98	4.25	3.15		4.99	5.6	4.04
10	**Red Eléctrica de España**							
	Ratio Type	2012	2013	2014	2015	2016	2017	2018
	Return on Investment (%)	13.543	12.987	14.234		15.567	16.789	17.432
	Liquidity Ratio	1.752	1.819	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	11.234	10.765	12.543		13.876	14.987	15.654
	Average stock price	23.38	24.44	22.05		14.16	12.17	13.6

Data on Saudi Stock Exchange Companies

1	**Saudi Aramco**	**ARAMCO**						
	Ratio Type	2016	2017	2018	2019	2020	2021	2022
	Return on Investment (%)	12.345	13.21	14.322		15.456	16.789	17.543
	Liquidity Ratio	1.752	1.819	1.685		1.574	1.482	1.396
	Leverage Ratio	0.798	0.815	0.832		0.917	0.942	0.986
	Profitability Ratio (%)	11.234	10.765	12.543		13.876	14.987	15.654
	Average stock price	48.14	45.19	44.18		30.2	33.54	32.1
2	**Al Rajhi Bank**	**RAJHI**						
	Ratio Type	2017	2018	2019	2020	2021	2022	2023
	Return on Investment (%)	14.678	15.342	16.521		17.89	18.432	19.876
	Liquidity Ratio	1.932	1.874	1.783		1.654	1.521	1.416
	Leverage Ratio	0.721	0.693	0.665		0.632	0.601	0.578
	Profitability Ratio (%)	13.245	14.098	14.987		15.543	16.21	16.789
	Average stock price	60.66	61.12	60.19		76.66	75.2	76.9
3	**Saudi Basic Industries Corporation**	**SABIC**						
	Ratio Type	2015	2016	2017	2018	2019	2020	2021
	Return on Investment (%)	17.543	18.765	19.876		20.543	21.987	22.543
	Liquidity Ratio	1.894	1.743	1.652		1.527	1.414	1.309
	Leverage Ratio	0.712	0.685	0.657		0.623	0.592	0.569

	Profitability Ratio (%)	16.765	17.654	18.21		18.876	19.543	20.21
	Average stock price	60.17	77.23	79.05		86.43	82.54	80.9
4	**Saudi Telecom Company**	**STC**						
	Ratio Type	2014	2015	2016	2017	2018	2019	2020
	Return on Investment (%)	18.234	19.543	20.876		21.543	22.987	23.543
	Liquidity Ratio	1.932	1.874	1.783		1.654	1.521	1.416
	Leverage Ratio	0.721	0.693	0.665		0.632	0.601	0.578
	Profitability Ratio (%)	17.543	18.234	19.543		20.21	20.987	21.654
	Average stock price	29.66	28.17	20.12		36.63	33.48	31.25
5	**Saudi Arabian Airlines**	**SAUDI**						
	Ratio Type	2016	2017	2018	2019	2020	2021	2022
	Return on Investment (%)	19.123	20.432	21.876		22.543	23.987	24.543
	Liquidity Ratio	1.963	1.812	1.723		1.597	1.472	1.348
	Leverage Ratio	0.731	0.703	0.675		0.642	0.611	0.588
	Profitability Ratio (%)	18.234	19.123	20.432		21.098	21.876	22.543
	Average stock price	251.51	224.17	119.18		119.77	120.68	128.28
6	**Eastern Development**	**E D**						
	Ratio Type	2015	2016	2017	2018	2019	2020	2021
	Return on Investment (%)	20.543	21.876	22.987		23.543	24.987	25.543
	Liquidity Ratio	1.982	1.821	1.732		1.617	1.493	1.379
	Leverage Ratio	0.741	0.713	0.685		0.652	0.621	0.598
	Profitability Ratio (%)	19.543	20.543	21.876		22.543	23.987	24.543
	Average stock price	14.87	16.55	17.5		20.89	22.17	21.44
7	**National Commercial Bank**	**NCB**						
	Ratio Type	2017	2018	2019	2020	2021	2022	2023
	Return on Investment (%)	21.432	22.765	23.876		24.543	25.987	26.543
	Liquidity Ratio	1.993	1.832	1.743		1.628	1.503	1.389
	Leverage Ratio	0.751	0.723	0.695		0.662	0.631	0.608
	Profitability Ratio (%)	20.654	21.432	22.765		23.543	24.987	25.543
	Average stock price	17.5	18.88	20.19		36.76	37.98	37.7
8	**Zamil Industrial Investment Company**	**ZAMIL**						
	Ratio Type	2013	2014	2015	2016	2017	2018	2019
	Return on Investment (%)	20.321	19.654	18.987		17.543	16.876	15.432
	Liquidity Ratio	1.982	1.821	1.732		1.617	1.493	1.379
	Leverage Ratio	0.741	0.713	0.685		0.652	0.621	0.598
	Profitability Ratio (%)	19.432	18.321	17.654		16.543	15.876	14.543
	Average stock price	20.17	18.87	17.52		19.59	18.66	19.9
9	**Saudi Electricity Company**	**SEC**						
	Ratio Type	2014	2015	2016	2017	2018	2019	2020
	Return on Investment (%)	19.654	18.987	17.543		16.876	15.432	14.543
	Liquidity Ratio	1.963	1.812	1.723		1.597	1.472	1.348
	Leverage Ratio	0.731	0.703	0.675		0.642	0.611	0.588
	Profitability Ratio (%)	18.876	17.654	16.543		15.876	14.543	13.432
	Average stock price	11.22	12.06	15.14		28.51	27.19	17.87
10	**Zamil Industrial Investment Company**	**ZAMIL**						
	Ratio Type	2016	2017	2018	2019	2020	2021	2022
	Return on Investment (%)	18.987	17.543	16.876		15.432	14.543	13.432

	Liquidity Ratio	1.932	1.874	1.783		1.654	1.521	1.416
	Leverage Ratio	0.721	0.693	0.665		0.632	0.601	0.578
	Profitability Ratio (%)	17.654	16.543	15.876		14.543	13.432	12.321
	Average stock price	12.1	16.3	17.11		28.82	26.71	22.8

Appendix 3. Data after Summarization

Madrid Stock Exchange Companies

	Company	Arithmetic mean Before acquisition	Year of acquisition	Arithmetic mean After acquisition	Differences
1	**Banco Santander**		**2008**		
	Return on investment (%)	15		18	-3
	Liquidity rate	1.6		1.9	-0.3
	Leverage ratio	0.7		0.85	-0.15
	Profitability ratio (%)	11		14	-3
	Average share price	1.513		3.933	-2.42
2	**Telefónica**		**2012**		
	Return on investment (%)	12.803		15.716	-2.913
	Liquidity rate	1.801		2.174	-0.373
	Leverage ratio	0.799		0.847	-0.048
	Profitability ratio (%)	10.372		12.36	-1.988
	Average share price	7.583		4.43	3.153
3	**Refineries Company**		**2010**		
	Return on investment (%)	14.493		11.802	2.691
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	12.255		9.728	2.527
	Average share price	65.487		88.597	-23.11
4	**Repsol**		**2011**		
	Return on investment (%)	14.559		11.773	2.786
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		8.551	2.963
	Average share price	10.157		15.96	-5.803
5	**BBVA**		**2014**		
	Return on investment (%)	12.662		15.522	-2.86
	Liquidity rate	1.752		2.045	-0.293
	Leverage ratio	0.815		0.678	0.137
	Profitability ratio (%)	10.625		13.921	-3.296
	Average share price	5.35		8.257	-2.907
6	**Iberdrola**		**2007**		
	Return on investment (%)	14.493		11.802	2.691
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		8.551	2.963
	Average share price	4.91		9.213	-4.303
7	**Mapfre**		**2014**		
	Return on investment (%)	14.493		11.802	2.691

	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		8.551	2.963
	Average share price	1.12		2.627	-1.507
8	**Ferrovial**		**2013**		
	Return on investment (%)	14.493		11.802	2.691
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		8.551	2.963
	Average share price	27.73		34.257	-6.527
9	**CaixaBank**		**2014**		
	Return on investment (%)	14.493		11.802	2.691
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		8.551	2.963
	Average share price	4.46		4.877	-0.417
10	**Red Eléctrica de España**		**2015**		
	Return on investment (%)	13.588		16.596	-3.008
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		14.839	-3.325
	Average share price	23.29		13.31	9.98

Saudi Stock Exchange Companies

	Company	Arithmetic mean Before acquisition	Year of acquisition	Arithmetic mean After acquisition	Differences
1	**Saudi Aramco**		**2019**		
	Return on investment (%)	13.292		16.596	-3.304
	Liquidity rate	1.752		1.484	0.268
	Leverage ratio	0.815		0.948	-0.133
	Profitability ratio (%)	11.514		14.839	-3.325
	Average share price	45.837		31.947	13.89
2	**Al Rajhi Bank**		**2020**		
	Return on investment (%)	15.514		18.733	-3.219
	Liquidity rate	1.863		1.53	0.333
	Leverage ratio	0.693		0.604	0.089
	Profitability ratio (%)	14.11		16.181	-2.071
	Average share price	60.657		76.253	-15.597
3	**Saudi Basic Industries Corporation**		**2018**		
	Return on investment (%)	18.728		21.691	-2.963
	Liquidity rate	1.763		1.417	0.346
	Leverage ratio	0.685		0.595	0.09
	Profitability ratio (%)	17.543		19.543	-2
	Average share price	72.15		83.29	-11.14
4	**Saudi Telecom Company**		**2017**		
	Return on investment (%)	19.551		22.691	-3.14
	Liquidity rate	1.863		1.53	0.333

	Leverage ratio	0.693		0.604	0.089
	Profitability ratio (%)	18.44		20.95	-2.51
	Average share price	25.983		33.787	-7.803
5	**Saudi Arabian Airlines**		**2019**		
	Return on investment (%)	20.477		23.691	-3.214
	Liquidity rate	1.833		1.472	0.36
	Leverage ratio	0.703		0.614	0.089
	Profitability ratio (%)	19.263		21.839	-2.576
	Average share price	198.287		122.91	75.377
6	**Eastern Development**		**2018**		
	Return on investment (%)	21.802		24.691	-2.889
	Liquidity rate	1.845		1.496	0.349
	Leverage ratio	0.713		0.624	0.089
	Profitability ratio (%)	20.654		23.691	-3.037
	Average share price	16.307		21.5	-5.193
7	**National Commercial Bank**		**2020**		
	Return on investment (%)	22.691		25.691	-3
	Liquidity rate	1.856		1.507	0.349
	Leverage ratio	0.723		0.634	0.089
	Profitability ratio (%)	21.617		24.691	-3.074
	Average share price	18.857		37.48	-18.623
8	**Zamil Industrial Investment Company**		**2016**		
	Return on investment (%)	19.654		16.617	3.037
	Liquidity rate	1.845		1.496	0.349
	Leverage ratio	0.713		0.624	0.089
	Profitability ratio (%)	18.469		15.654	2.815
	Average share price	18.853		19.38333	-0.53
9	**Saudi Electricity Company**		**2017**		
	Return on investment (%)	18.728		15.617	3.111
	Liquidity rate	1.833		1.472	0.36
	Leverage ratio	0.703		0.614	0.089
	Profitability ratio (%)	17.691		14.617	3.074
	Average share price	12.807		24.52333	-11.717
10	**Zamil Industrial Investment Company**		**2019**		
	Return on investment (%)	17.802		14.469	3.333
	Liquidity rate	1.863		1.53	0.333
	Leverage ratio	0.693		0.604	0.089
	Profitability ratio (%)	16.691		13.432	3.259
	Average share price	15.17		26.11	-10.94

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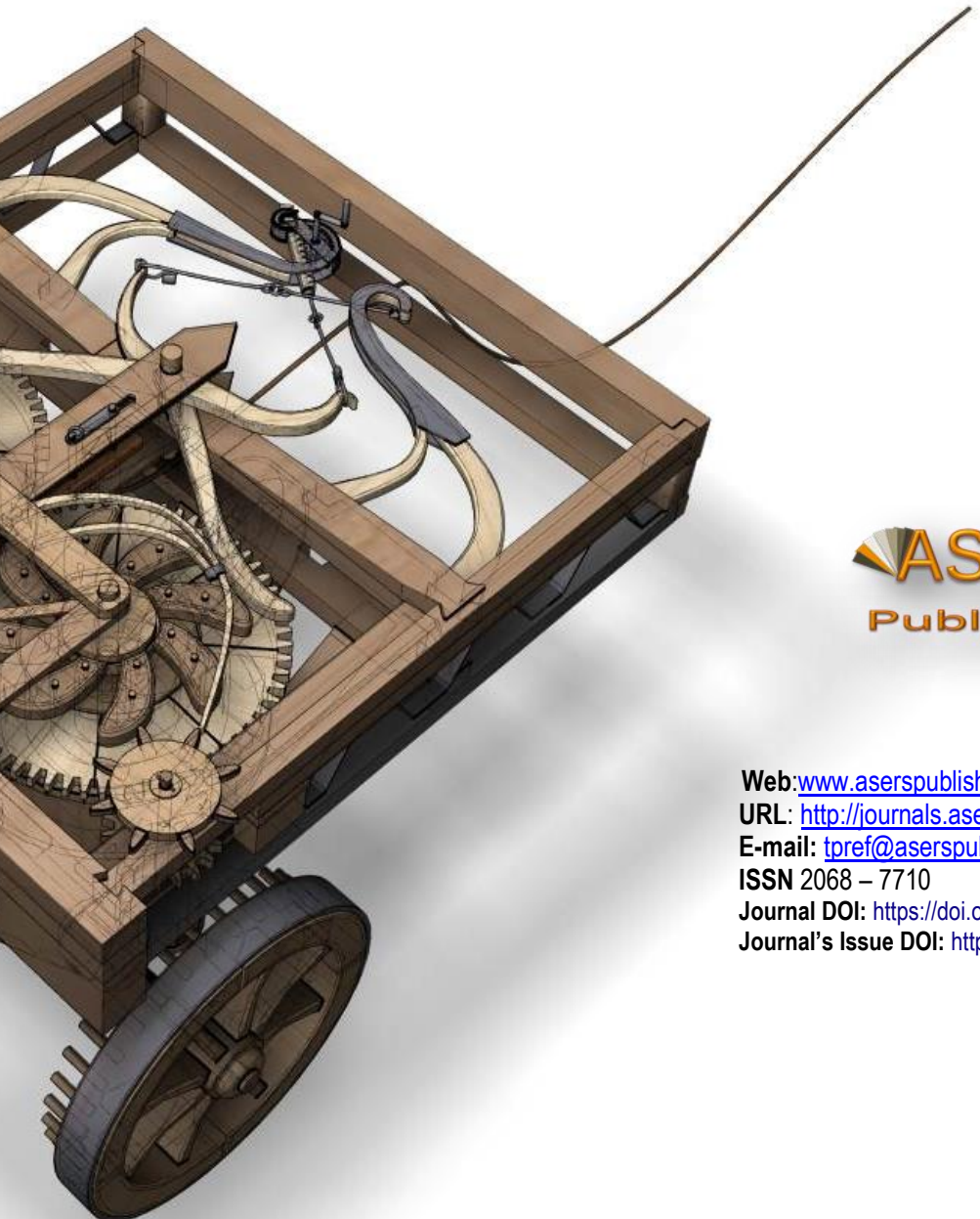

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