Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

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Equity Prices: Does Valuation Matter?
An Examination of the Disparity between Equities' Pricing and Valuations in Different Models
The Case of Egyptian Companies
(2014 – 2024)
Master of Science
in Business Administration in Finance

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Abstract

Over decades and across continents, the determinants of stock prices movements have been and are still an infinite, yet a rich area of research given numerous factors that are tangible and intangible that can have direct and indirect impacts on price movements. Researchers, analysts, and investors have been always striving to understand the rational behind stock prices movements, however, determinants found to be different over decades and across continents. This could be stemming from different countries' specific macro & legal dynamics, economics

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

cycles, monetary cycles, political stability, international trade relationships, and definitely market composition & investor sentiments.

The purpose of this research is to examine the disparity between stock price movements and stock valuations in the Egyptian Stock Exchange. Quarterly data for 68 companies was collected between 2014 and 2024 and investigated through 3 different models, examining the relationship between stock price movements and both fundamental factors and market factors along with the relationship between stock prices and respective valuations.

Foreseeably, results were more puzzling than the research purpose, despite being practically and logically justifiable given the irrationality and inefficiency nature of emerging markets. Findings of the three models showed an either insignificant relationship or a significant relationship within a sub model that doesn't logically and theoretically apply. Additionally, significant models had an adjusted R square that is not strong enough to explain the relationship.

A predictable and an anticipated set of findings is fueled as well by the long period of study between 2014 and 2024, despite being healthy for research investigations. Egypt witnessed several political, economic, and environmental events; each had different consequences shaping stock prices movements.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Thus, setting specific formulas and standardizing determinants that drive stock market prices movements is extremely challenging for a specific country or exchange and almost impossible without a significant chance of error across all stock exchanges worldwide.

Keywords Stock Prices, Valuations, Fundamental Factors, Market Factors, Turnover, Analyst Recommendations, Free Float Percentage, Valuation Methods, DCF, Multiples Valuation, Cash, Debt, Revenue Growth, NI Growth, CDS Rate, Headline Inflation FX Rate, ROE, and Discount Rate.

الملخص

على مدار العقود وعبر القارات، ظلت محددات تحركات أسعار الأسهم مجالًا واسعًا وثريًا للبحث، نظرًا لتعدد العوامل الملموسة وغير الملموسة التي يمكن أن تؤثر بشكل مباشر أو غير مباشر على تحركات الأسعار. لطالما سعى الباحثون والمحللون والمستثمرون لفهم الأسباب الكامنة وراء تحركات أسعار الأسهم، إلا أن هذه المحددات اختلفت باختلاف الأزمنة والمناطق. وقد يُعزى هذا الاختلاف إلى الديناميكيات الاقتصادية والقانونية الخاصة بكل دولة، والدورات الاقتصادية والنقدية، والاستقرار السياسي، والعلاقات التجارية الدولية، وبالطبع تركيبة السوق ومشاعر المستثمرين.

يهدف هذا البحث إلى دراسة التباين بين تحركات أسعار الأسهم وتقييماتها في البورصة المصرية. تم جمع بيانات ربع سنوية لـ68 شركة خلال الفترة من 2014 إلى 2024، وتم تحليلها باستخدام ثلاثة نماذج مختلفة لدراسة العلاقة بين تحركات أسعار الأسهم من جهة، والعوامل الأساسية وعوامل السوق من جهة أخرى، بالإضافة إلى العلاقة بين الأسعار السوقية والتقييمات المرتبطة بها.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

وكما هو متوقع، كانت النتائج أكثر تعقيدًا من هدف البحث نفسه، رغم أنها قابلة للتبرير منطقيًا وعمليًا نظرًا للطبيعة غير العقلانية وغير الكفؤة للأسواق الناشئة. أظهرت نتائج النماذج الثلاثة إما علاقة غير معنوية، أو علاقة معنوية ضمن نموذج فرعي لا ينطبق منطقياً أو نظرياً. بالإضافة إلى ذلك، فإن النماذج التي كانت معنوية لم تحقق معامل تفسير R^2 معدّل (قوي يوضح طبيعة العلاقة.

وقد ساهمت الفترة الزمنية الطويلة للدراسة (2014—2024) في تعقيد النتائج، رغم أنها تعتبر صحية من الناحية البحثية، حيث شهدت مصر خلال هذه الفترة العديد من الأحداث السياسية والاقتصادية والبيئية، كان لكل منها تداعيات مختلفة أثرت على تحركات أسعار الأسهم.

لذلك، فإن وضع صيغ محددة أو تعميم المحددات التي تؤثر في تحركات أسعار الأسهم يعد أمرًا بالغ الصعوبة على مستوى سوق معين، ويكاد يكون مستحيلاً على مستوى جميع الأسواق العالمية دون نسبة خطأ كبيرة.

الكلمات المفتاحية:أسعار الأسهم، التقييمات، العوامل الأساسية، عوامل السوق، حجم التداول، توصيات المحللين، نسبة الأسهم الحرة، طرق التقييم، التدفقات النقدية المخصومة(DCF) ، تقييم المضاعفات، النقد، الديون، نمو الإيرادات، نمو صافي الربح، معدل مبادلة مخاطر الائتمان(CDS) ، معدل التضخم، سعر الصرف، العائد على حقوق الملكية(ROE) ، ومعدل الخصم.

1. <u>Introduction</u>

1.1 Overview

Understanding the drivers of equity price movements is crucial for investors (institutional and individuals) and advisors as it eases decision making process. Future earnings and growth prospects along with macro dynamics and investment environment have always been the most commonly anticipated

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

drivers of price movements, however; there are other several tangible and intangible non-fundamental drivers of price movements stemming from the inefficient markets. Despite the comprehensive research and the theoretical simplicity of valuation models and using fundamentals to arrive at true values of equities, prices do not necessarily follow.

A widely anticipated driver of stock prices' movement is fundamentals that drive the valuation of companies; however, valuations are not exclusively impacting the price movements in the stock market, which explains, sometimes, the unjustified gaps between stock prices and valuations. Liquidity, market composition between retail and institutional investors or foreign, regional and local investors, macro-economic environment, and market sentiment join fundamentals in explaining the gap between stock prices and valuations.

Market factors cause price overshooting upwards and downwards leading to -sometimes- unjustified movements. Aggressive price movements, which are most of the time faster than valuations, could be a reflection of a sudden change in demand and supply or an unexpected fundamental event (surprise profits or losses) or corporate actions that could take a few to reflect on fundamental values but seconds to reflect on market price movements. Market prices could be pricing in as well speculations and sentiments that are yet to be reflected on fundamentals. These speculations and sentiments usually create price bubbles for some stocks and cause

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

others to be laggers. Generally, equity markets are characterized by inefficiency, creating opportunities for investors to capitalize on. Thus, understanding the reasons behind the variations between stock prices and valuations is key for achieving rational investing decisions.

Market players understand that in order to make well informed decisions, the investor or the advisor should knock all doors including fundamental and technical analysis, local and global dynamics, and market sentiment. Yet, and despite the fact that decisions are assumed to be rational, stock prices fail to reflect intrinsic value of stocks. This research paper aims to explain the reasons behind the disparities and variations between stock prices and valuations using Egyptian listed companies.

Using aggregated equity prices along with in house aggregated valuations for equities, fundamental indicators, market composition between retail/institutions and local/foreign/regional investors, stocks liquidity, market turnover, and key macro-environment drivers, this research paper aims at bridging the gap between prices and valuations and explain the reasons behind market inefficiencies.

1.2 Research Statement

Even though investors and advisors tend to make informed decisions, desired returns are not necessarily achieved. Intangible market forces such as investor sentiment, trading composition,

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

and liquidity play an integral role, along with fundamentals, in driving stock price movements despite having a negligible impact on valuation. This research paper aims to bridge the gap between stock prices and valuations and explain the disparities between stock prices movements and fundamentals.

1.3 Significance of the Study

Understanding the disparities between price movements and valuations contributes to generating alpha in returns, making better investing decisions, capitalizing on market inefficiency, and arriving at an innovative valuation technique that combines fundamentals with intangible drivers of price movements.

1.4 Research Objectives

The research is conducted in order to fulfill the following objectives:

1- Identify key disparities between prices and valuations.
2- Explore market factors that drive price movements.
3- Pinpoint to key valuation triggers.

1.5 Research Questions

What are the key disparities between prices and valuations?

a. What causes the disparities between prices and valuations?
b. How long is the lag between prices and valuations?

What are the market factors that drive price movements?

a. Does the turnover of equities impact price movements?
b. Does the free float percentage impact price movements?

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

c. Do analyst recommendations impact price movements?

What are the fundamental factors that impact equity prices?

a. Do cash and debt balances impact equity prices?

b. Do trading multiples trigger a change in equity prices?

c. Do fundamental factors (such as net income, revenues, debt, cash flow, and ROE impact equity prices?

d. Do macro factors impact equity prices?

1.6 Research Hypothesis

The study examines the following testable hypotheses.

Hypothesis 1:

H_0: Fundamental and macro indicators have an impact on equities' prices.

H_1: Fundamental and macro indicators have no impact on equities' prices.

Hypothesis 2:

H_0: Market factors have no impact on price movements.

H_1: Market factors have an impact on price movements.

Hypothesis 3:

H_0: There are no disparities between equities' prices and valuations.

H_1: There are disparities between equities' prices and valuations.

1.7 Research Outline

This thesis is outlined as follows. Chapter two includes relevant literature including theoretical developments and empirical

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

studies that examine the relationship and determinants between and of equity price and valuations. Chapter three explains the data, statistical tests and methods employed in the study. The chapter begins with the introduction of the data selection procedure along with its sources and moves forward to the methodology adopted. Chapter four reports all key findings of the tests and summary of the results. In addition to that, it provides a summary and a discussion of the findings of the thesis.

2. Literature Review

2.1 Introduction

Asset pricing models were developed to address one of the key finance related questions in literature, which is how to determine the intrinsic value of an asset that provides uncertain stream of future cash flows. It's widely accepted that the price of an asset is equal to the present value of the future cash flows generated by a business, with the rate these cashflows are being discounted at represents the degree of risk these investors are willing to take and accordingly their required rate of return (Khamis and Abdou, 2019).

The volatile environment of the stock market along with the dramatic moves sometimes, give the investors both positive and negative signs about the possibility of generating specific returns. A vast majority of previous research and literature quote Fama's 1981 hypothesis that concluded a negative association between stock prices and inflation. Moreover, it is widely anticipated that

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

an increase in interest rates opens up a subject for a debate that capitalizes on the fact that if interest rate increased, bond investing should be more rewarding that stock market investing, given the relative risk of both asset classes. (Eldomiaty, et al, 2018).

2.2 Understanding the determinants of equities valuations

Damodaran believes that valuation is the heart for much of what we do in finance. The author surveyed literature on different models including discounted cash flow models and dividends discount models. Industry professionals and analysts apply a wide different set of models regardless of how simple or complex these models are. Each of these models often use a different set of assumptions related to fundamentals that are used to determine the value. A classification of models makes it is easier to better understand where specific models fit in the big picture and why sometimes results differ. Damodaran classifies valuation models into 4 categories or approaches, out of which the most commonly used is DCF (Discounted Cash Flow), that uses the present value of future cash flows to arrive at the intrinsic value of a company. Liquidation valuation is used to value current assets of a company and usually uses the book value as an estimate for the fair value. Damodaran's third valuation model method is the RV (Relative Valuation), that values a company or an asset relative to or compared to a similar/comparable peer. Finally, the Contingent Claim Valuation, that uses option pricing models to arrive at the

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

intrinsic or fair value of an asset or a company (Damodaran, 2006).

CAPM (Capital Asset Pricing Model), is the most widely used asset pricing model is based on a model of portfolio choice initially developed by Markowitz, before being derived by Sharpe (1964) and Lintner (1965b). CAPM allows investors to earn a return in time t when investing in a pre-constructed portfolio in time t-1. CAPM and Markowitz model assume that investors are risk-averse, and respective portfolios are mean-variance efficient. Accordingly, an investor expects to earn a specific return, which is composed of a risk-free rate of return and a risk premium factor for bearing an additional risk (El Abd, 2016).

(Zhao, 2022) undertaken studies show that using P/E (price to earnings ratio) to value companies is the simplest and one of most effective methods of valuation. Additionally, P/E is considered one of the most common indicators used by investors and companies to determine whether their respective stock price stand compared to peers. Usually, when investors see a company's P/E ratio is lower than peers, they will know that the company is undervalued and vise-versa. However, there is no specific benchmark for the P/E ratio.

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

2.3 Understanding the fundamental determinants of equity price movements

LeRoy and Porter (1981) and Shiller (1981) realized that, with a constant discount factor, stock prices appeared to be too volatile and not consistent with the movements in future dividends. The research concluded that stock prices show too much volatility that can be explained by only. This conclusion, suggests that stock prices show too much volatility to be explained by only fundamental variables. Earnings announcement has been found to be the best explainer to the variation in stock returns. Public companies depend on earnings announcements to provide investors with periodic financial performance. Investors use earnings announcements to make trading decisions and update expectations on the future free cash flows of companies. However, two reasons fuel a widely debatable debate of why earnings announcements can lack timely informational value. Riddled procedures used by companies to compute earnings could be associated with measurement errors that they could render earnings of little use to investors. Accordingly, earnings announcements are tools for investors to revise their estimates of cashflows and future earnings expectations. (Dechow, et al, 2014).

(Sharpe, 2002)'s research findings suggested that the relationship between the price to earnings ratio and inflation is the outcome of both hypothesized effects, where a rise in expected inflation led

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

to lower stock prices. This is attributed to the fact that higher inflation leads to a lower real equity returns and this negative inflation can partially be explained by a negative correlation between expected inflation and expected long term profitability growth.

After running a panel Johansen cointegration analysis using the data of non-financial firms listed in DJIA30 and NASDAQ100 for the period 1999-2016, it appeared that the cointegration exists between stock prices, changes in stock prices due to inflation rates, and the changes in stock prices due to real interest rates. Cointegration regression results showed that inflation rates and stock prices are negatively associated, real interest rates and stock prices are positively associated, and changes in real interest rates and inflation rates Granger cause significant changes in stock prices. Stock market volatility is a volatile environment with dramatic moves that give investors positive or negative signs about stock market returns. Both inflation rates and interest rates are two key macroeconomic variables that have great impacts on the economy in general and on the stock market in particular (Eldomiaty, et al, 2018).

Alexakis et al. (1996) argued that high inflation rates affect stock prices due to the volatility in inflation rates, mainly in emerging capital markets, while developed capital market economies experiencing more stable and relatively lower inflation rates have stability in stock prices and these mainly exist in developed

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

capital markets. Many studies agree with the argument that specifically emerging capital markets are mostly affected negatively by the inflation rate. This conclusion is reported by Lokeswar Reddy (2012) in India, Adusei (2014) in Ghana, Uwubanmwen and Eghosa (2015) in Nigeria, Silva (2016) in Sri Lanka and Jepkemei (2017) in Kenya.

2.4 Understanding the disparities between equity prices and valuations

(Harvey, 1994) pointed out to global standard asset-pricing models that assume a full integration of capital markets, unfortunately didn't succeed to explain the emerging markets' cross-section average returns. Analysis showed that the predictability of stock returns in emerging markets are influenced by local behavior and local information circulated, unlike developed markets that are driven by more solid changes in respective factors. The author used data on more than 800 equities in six Latin American markets, eight Asian markets, three European markets, one Middle East market, and two African markets. The findings showed that in the overall sample, the arithmetic simple average return of the emerging markets is 20.4% with a standard deviation of 24.9%, which is around 50% higher than the MSCI world composite index (13.9% average arithmetic return, same sample), similarly, the standard deviation is about 80% higher than the MSCI world index (14.4%). Additionally, multivariate tests suggest that the emerging markets are not normally distributed. Statistics results proved contrasts between emerging markets and

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

developed markets, with emerging markets achieving higher average returns and accordingly volatility than developed markets. The findings concluded that returns in the emerging markets depart from the normal distribution.

(Nazir, et al, 2010) in a research paper, explored the price movements fluctuations of the Pakistani stock market, taking into account a set of variables including: payout ratio, LT debt to assets ratio, net profit before interest, assets growth rate, company size, and tax-to-asset ratio. The findings of the research showed that the company's payout ratio, or in other words, the dividend policy seems to have a more significant impact on stock price movements over other variables used. Oseni and Nwosa (2011) studied the impact GDP, inflation rates, and interest rates on stock price movements and fluctuations of the Nigerian stock exchange market. The results of their research indicated the possibility that GDP could have a greater effect on stock prices fluctuations over and compared to inflation and interest rates.

(Walid, et al, 2011) explored the correlation and relationship between foreign currency exchange rates and stock price movements and fluctuations in a group of emerging markets including Malaysia, Singapore, Mexico, and Hong Kong. The findings of the research showed a significant relationship between foreign currency exchange rates and stock price movements and fluctuations. (Yogaswari, et al, 2012) studied the relationship in the Indonesian market between three

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

macroeconomic factors and stock price fluctuations. Findings pointed out that all of the three variables of exchange rate, inflation, and interest rate have an effect on stock price movements and fluctuations.

Mehmood, et al, 2019 explored the impact of interest rates, EBT, EBIT, long term debt ratio, assets growth rate, and the company size with the Pakistani stock prices. Findings confirmed and indicated a significant relationship between the above-mentioned variables and stocks prices movements. Handayani, et al, 2018, in a research paper, explored the determinants of stock price movements in Indonesia. Research findings highlighted an impact of five variables, namely: ROE, D/E, company size, sales growth rate, cash ratio, and dividend payout ratio and cash ratio with a high explanatory power for forecasting stock price fluctuations.

2.5 Conclusion

In conclusion, (Almashaqbeh, et al, 2021) pointed out that different characteristics related to different markets makes it hard and irrelevant to generalize the magnitude and direction of the relationships between the stock price volatility and movement with the factors under investigations, this can be attributed to the different conditions that is associated with each market and economy including macroeconomics variables and expectations, regulatory environment, market composition, investors sentiment and appetite. Additionally, the impact of the variables impacting

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

the stock prices can be different across sectors. After investigating the variables impacting stock prices on 53 listed Jordanian stocks between 2002 and 2007, the research findings showed three key variables that have an impact on stock prices, namely: ownership structure, audit quality, and value relevance accounting information. Accordingly, this impacts the investors' expectations for the profitability and future cashflow that should drive stock prices going forward. Secondly, the impact of audit quality is significant on stock prices, given that the financial statements that drive expectation stem from a top-notch audit quality so that it doesn't have a manipulative impact on financial performance and accordingly investors' expectations that drive stock movements. The relevance of financial information is crucial to a rational and informative decision-making process, without which, an investor won't be able to build argument-based expectations and accordingly build a well-diversified portfolio to mitigate the risk. Lastly, the value relevance of accounting information definitely has a significant impact on stock price movements. Relevant pieces of information can materially impact stock prices over the short term and have a significant impact on the long term. Despite having an impact on stock price movements, these accounting factors significantly impact companies' valuation that drives stock price movements. On the other hand, some accounting information are classified as irrelevant when it doesn't accurately represent the financial

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

information of a company. Given that context, the author believes that trading volume could be an important variable that should be considered, and it should undergo further research and investigation.

3. Data, Statistical Tests and Estimation

Bloomberg terminal is the source of data used to investigate the disparities between equity prices and valuation in Egypt over the past ten years. Bloomberg allows researchers and industry professionals to retrieve data for equities, bonds, and FX for all markets and countries across the world. Bloomberg retrieves historical, spot, and sometimes forward data for different types of securities. Additionally, CBE was the source of data for headline inflation rates, interest rates, and exchange rates.

In this chapter of the research, the data used, the sources of the data, and the research methodology is going to be discussed, to explain the disparities between the valuation of equities and the stock prices in the Egyptian stock exchange. The data under investigation in this research study is panel time series data over 10 years (the frequency is quarterly) of 68 listed companies in the Egyptian stock exchange.

Section 3.1 Dependent (Y) and Independent (X) Variables:

In this research study, four sub-models were applied for each of the three main models used, with each of the sub-models uses a different Dependent Variable (all are proxies to the main dependent variable).

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Each of the three main models uses the aggregate prices of the selected group of stocks as the dependent variable.

Model one investigates the relationship between aggregate stock prices (Y) and a group of fundamental variables (Xs) including: cash, debt, revenue growth, NI growth, ROE, FX losses, CDS rate, headline inflation, FX rate, and discount rate.

Model two investigates the relationship between aggregate stock prices (Y) and a group of market variables (Xs) including: free float percentage, turnover, number of trades, total analyst recommendations, buy recommendations, sell recommendations, and hold recommendations.

Model three investigates the relationship between aggregate stock prices (Y) and aggregate valuations of the selected companies (X).

Each of the three models has four sub models, each uses a different proxy of the dependent variable (Y: stock prices). Sub model one uses the **price to earnings ratio** as a proxy for stock prices, **sub model two** uses the **price to sales ratio** as a proxy for stock prices, **sub model three** uses the **market cap** as a proxy for stock prices, and **the fourth sub model** uses the **enterprise value** as a proxy for stock prices.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Section 3.2 Correlation analysis and chart analysis between the variables.

Section 3.2.1 presents correlation analysis between the variables.

Table 1 below shows the correlation analysis between the variables across the three main models and the associated four models.

Model one (which investigates the relationship between aggregate stock prices (Y) and a group of fundamental variables (Xs)) correlation analysis showed a negative correlation between most independent variables and the dependent variable proxy (Market Cap), with the exception of cash, debt, and revenue growth. On the contrary, most of the independent variables showed positive correlation with the dependent variable proxy (Enterprise Value), with the exception of cash, debt, and FX losses that showed a negative correlation. Dependent variables proxies PE and PS showed a variability in the direction of correlations with the independent variables as shown in the table below.

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

Table 1: Model One Correlation Analysis

	PE Proxy	PS Proxy	Market Cap	EV	Cash	Debt	Rev. Growth	NI Growth	ROE	FX losses	CDS	Inflation	FX Rate	Discount Rate
PE Proxy	1													
PS Proxy	0.25	1												
Market Cap	0.18	0.05	1											
EV	0.24	0.73	(0.09)	1										
Cash	(0.24)	(0.12)	0.03	(0.14)	1									
Debt	(0.06)	(0.16)	0.34	(0.23)	0.58	1								
Rev. Growth	(0.11)	0.12	0.03	0.40	0.11	0.04	1							
NI Growth	0.04	0.26	(0.05)	0.37	0.11	(0.04)	0.46	1						
ROE	0.02	(0.01)	(0.24)	0.31	(0.22)	(0.14)	0.11	(0.00)	1					
FX losses	(0.27)	0.00	(0.26)	(0.08)	0.15	0.04	(0.05)	0.18	(0.00)	1				
CDS	(0.05)	0.33	(0.26)	0.39	0.40	0.11	0.20	0.19	0.51	0.19	1			
Inflation	0.06	0.12	(0.25)	0.47	(0.08)	(0.28)	0.25	0.02	0.81	(0.03)	0.64	1		
FX Rate	(0.04)	(0.08)	(0.12)	0.13	(0.01)	(0.00)	0.18	0.34	0.23	(0.27)	0.23	0.27	1	
Discount Rate	(0.08)	0.01	(0.27)	0.27	0.21	(0.13)	0.20	0.11	0.24	0.26	0.33	0.44	0.20	1

Table 2 below shows the correlation analysis between the variables of model two and the associated four sub-models.

Model two (which investigates the relationship between aggregate stock prices (Y) and a group of market variables (Xs)) correlation analysis showed a positive correlation between all of the independent variables and the dependent variable proxy (Market Cap). Additionally, most of the independent variables showed positive correlation with the dependent variable proxy (Enterprise Value), with the exception of changes in Total Analyst Recommendations and changes in Buy Recommendations. Dependent variables proxies PE and PS showed as well positive correlations with most of the

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

independent variables with the exception of very few, as shown in the table below.

Table 2: Model Two Correlation Analysis

	PE Proxy, % Change	PS Proxy, % Change	Percentage Change in Market Cap, %	Percentage Change in EV, %	Weighted Average Free Float, %	Turnover/ Market Cap, %	Percentage Change in # of trades, %	Changes in Total Analyst Recommenda tions, %	Changes in BUY Recommen dations, %	Changes in SELL Recommen dations, %	Changes in HOLD Recommen dations, %
PE Proxy, % Change	1										
PS Proxy, % Change	0.25	1									
Percentage Change in Market Cap, %	0.18	0.05	1								
Percentage Change in EV, %	0.24	0.73	(0.09)	1							
Weighted Average Free Float, %	0.12	0.18	0.01	0.07	1						
Turnover/Market Cap, %	(0.04)	0.26	0.05	0.29	0.06	1					
Percentage Change in # of trades	0.04	0.53	0.05	0.59	0.10	0.86	1				
Changes in Total Analyst Recommendations, %	(0.11)	(0.18)	0.21	(0.20)	0.08	(0.19)	(0.25)	1			
Changes in BUY Recommendations, %	(0.11)	(0.32)	0.10	(0.37)	(0.04)	(0.26)	(0.31)	0.84	1		
Changes in SELL Recommendations, %	0.11	0.39	0.08	0.38	0.31	(0.01)	0.15	(0.17)	(0.35)	1	
Changes in HOLD Recommendations, %	(0.07)	0.12	0.08	0.12	0.05	0.07	0.01	0.39	(0.06)	(0.18)	1

Table 3 below shows the correlation analysis between the variables of model three and the associated four sub-models.

Model three (which investigates the relationship between aggregate stock prices (Y) and aggregate valuations (X)) correlation analysis showed a positive correlation between all of the independent variables and the dependent variable proxies Price to Earnings Ratio, Price to Sales Ratio and the Enterprise Value). On the contrary, aggregate valuations showed a negative

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Mariam Wael

correlation with the dependent variable proxy Market Cap, as shown in the table below.

Table 3: Model Three Correlation Analysis

	PE Proxy, % Change	PS Proxy, % Change	Percentage Change in Market Cap, %	Percentage Change in EV, %	Change in Valuation, %
PE Proxy, % Change	1				
PS Proxy, % Change	0.25	1			
Percentage Change	0.18	0.05	1		
Percentage Change	0.24	0.73	(0.09)	1	
Change in Valuatior	0.06	0.25	(0.15)	0.52	1

Section 3.2.2 presents chart analysis between the variables.

Chart 1: Model One Chart Analysis using sub model one that uses P/E as a proxy for the dependent variable.

Chart 1 below shows the chart analysis between all the variables of model one that investigates the relationship between the dependent variable (Y) using the Price to Earnings as a proxy of aggregate stock prices and the independent variables (Xs) using a set of fundamental variables. Chart one shows that variations in stock prices are much steeper and more aggressive than changes in other fundamental factors. FX losses were excluded as it distorts the chart analysis given the steep changes because of the base effect theory.
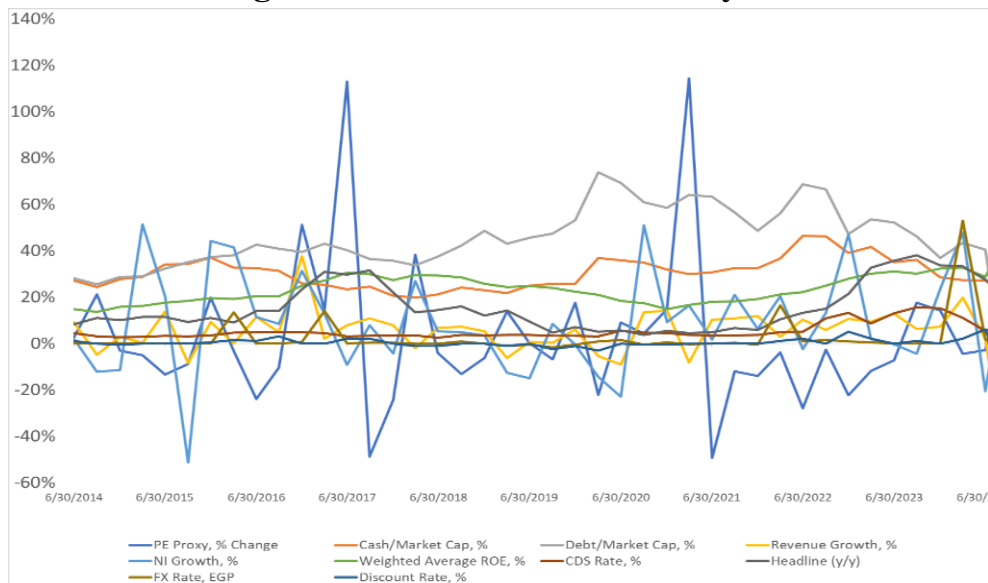
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Mariam Wael

Figure 1: Model 1.1 Chart Analysis

Chart 2: Model One Chart Analysis using sub model two that uses P/S as a proxy for the dependent variable.

Chart 2 below shows the chart analysis between all the variables of model one that investigates the relationship between the dependent variable (Y) using the Price to Sales as a proxy of aggregate stock prices and the independent variables (Xs) using a set of fundamental variables. Chart two shows that variations in stock prices are closer to the changes in fundamental factors than they were in sub model two of model one. FX losses were excluded as it distorts the chart analysis given the steep changes because of the base effect theory.
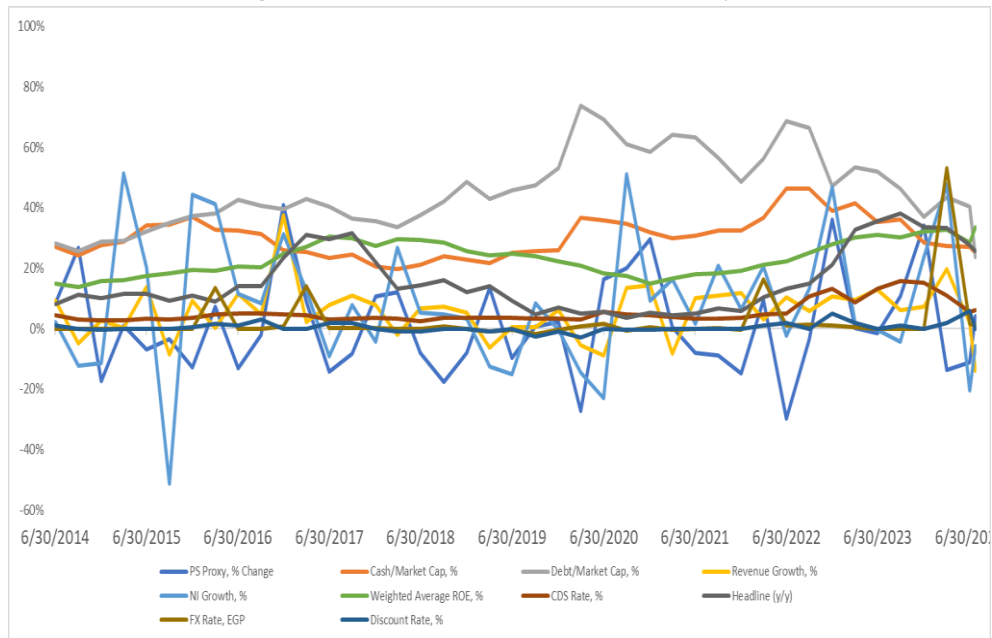
Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Figure 2: Model 1.2 Chart Analysis

Chart 3: Model One Chart Analysis using sub model three that uses market cap as a proxy for the dependent variable.

Chart three below shows the chart analysis between all the variables of model one that investigates the relationship between the dependent variable (Y) using the market cap as a proxy of aggregate stock prices and the independent variables (Xs) using a set of fundamental variables. Chart three shows that variations in stock prices are less steep and less aggressive than changes in other fundamental factors. FX losses were excluded as it distorts the chart analysis given the steep changes because of the base effect theory.
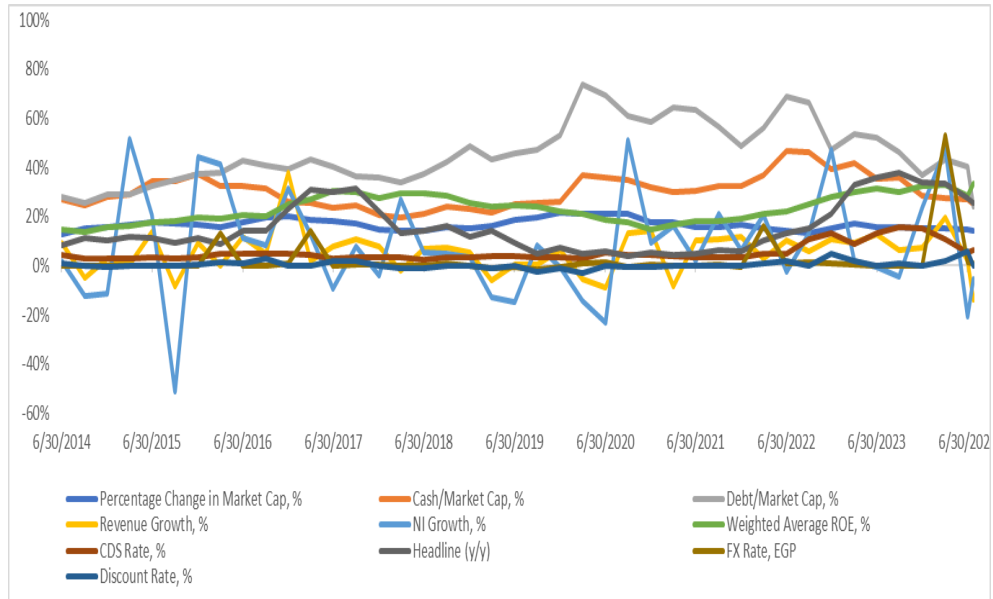
Figure 3: Model 1.3 Chart Analysis

Chart 4: Model One Chart Analysis using sub model four that uses enterprise value as a proxy for the dependent variable.

Chart four below shows the chart analysis between all the variables of model one that investigates the relationship between the dependent variable (Y) using the enterprise value as a proxy of aggregate stock prices and the independent variables (Xs) using a set of fundamental variables. Chart four shows that variations in stock prices are less steep and less aggressive than changes in other fundamental factors. FX losses were excluded as it distorts the chart analysis given the steep changes because of the base effect theory.
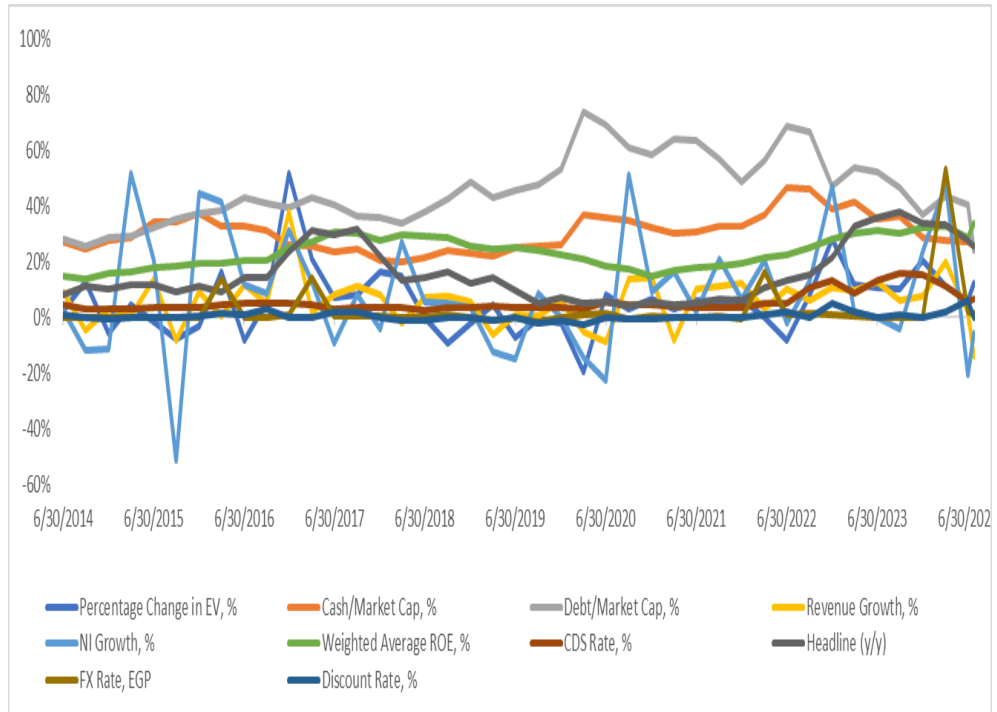
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Mariam Wael

Figure 4: Model 1.4 Chart Analysis

Chart 5: Model Two Chart Analysis using sub model one that uses price to earnings as a proxy for the dependent variable.

Chart five below shows the chart analysis between all the variables of model two that investigates the relationship between the dependent variable (Y) using the price to earnings as a proxy of aggregate stock prices and the independent variables (Xs) using a set of market variables. Chart five shows that variations in stock prices are moving with the changes in market factors with few exceptions during specific quarters.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

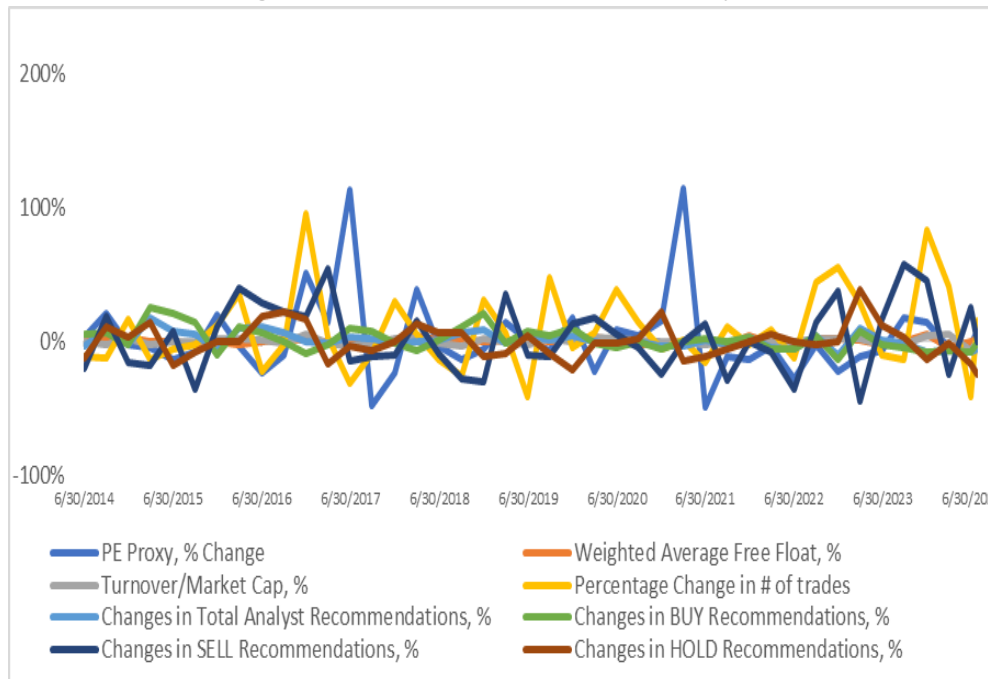## Figure 5: Model 2.1 Chart Analysis

Chart 6: Model Two Chart Analysis using sub model two that uses price to sales as a proxy for the dependent variable.

Chart six below shows the chart analysis between all the variables of model two that investigates the relationship between the dependent variable (Y) using the price to sales as a proxy of aggregate stock prices and the independent variables (Xs) using a set of market variables. Chart six shows that variations in stock prices are moving with the changes in market factors with few exceptions during specific quarters.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael
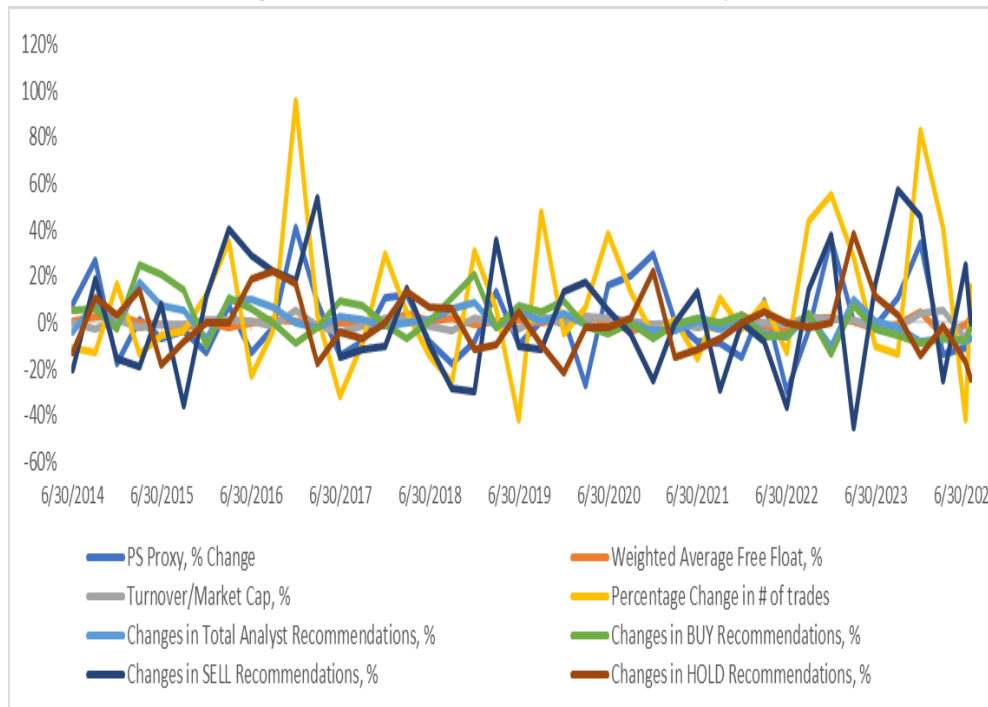
Figure 6: Model 2.2 Chart Analysis

Chart 7: Model Two Chart Analysis using sub model three that uses market cap as a proxy for the dependent variable.

Chart seven below shows the chart analysis between all the variables of model two that investigates the relationship between the dependent variable (Y) using the market cap as a proxy of aggregate stock prices and the independent variables (Xs) using a set of market variables. Chart seven shows that variations in stock prices are moving with the changes in market factors with few exceptions during specific quarters.
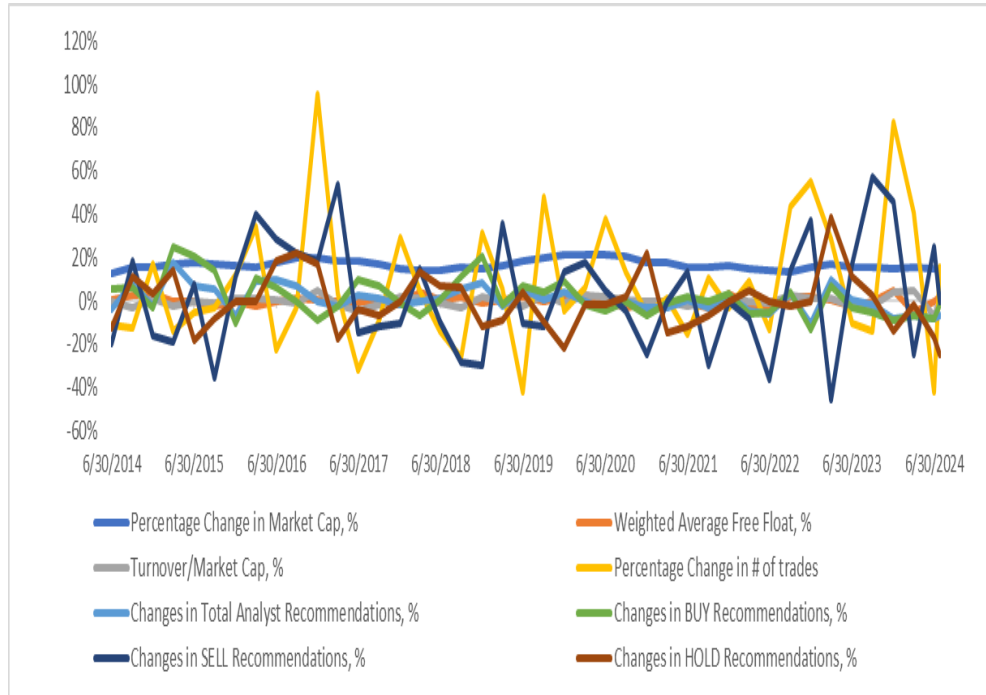
Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Figure 7: Model 2.3 Chart Analysis

Chart 8: Model Two Chart Analysis using sub model four that uses enterprise value as a proxy for the dependent variable.

Chart eight below shows the chart analysis between all the variables of model two that investigates the relationship between the dependent variable (Y) using the enterprise value as a proxy of aggregate stock prices and the independent variables (Xs) using a set of market variables. Chart eight shows that variations in stock prices are moving with the changes in market factors with few exceptions during specific quarters.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael
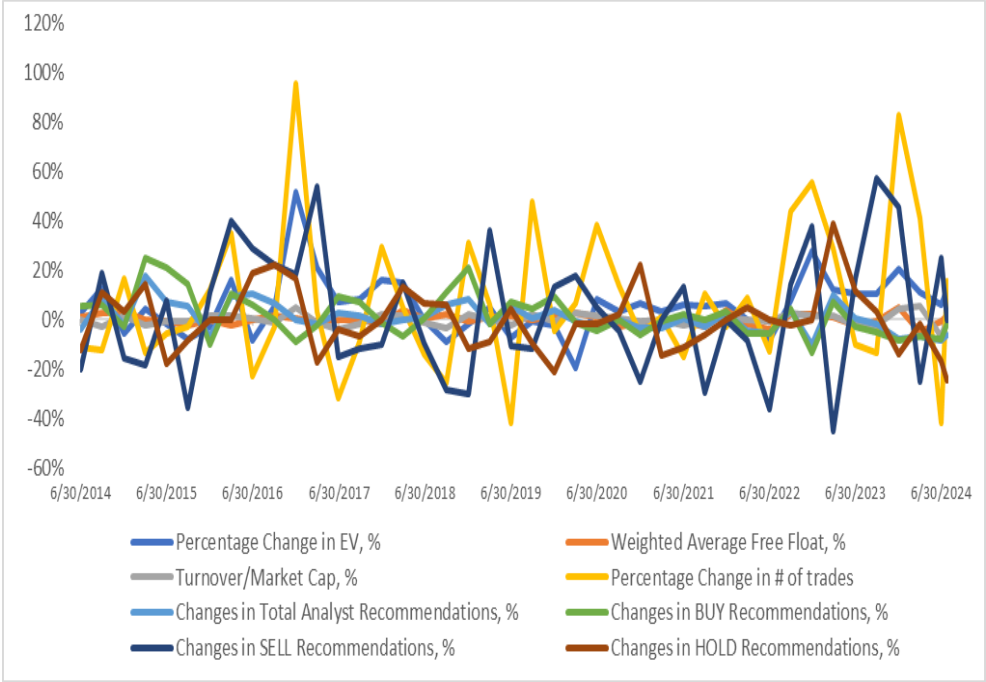
Figure 8: Model 2.4 Chart Analysis

Chart 9: Model Three Chart Analysis using sub model one that uses price to earnings as a proxy for the dependent variable.

Chart nine below shows the chart analysis between all the variables of model three that investigates the relationship between the dependent variable (Y) using the price to earnings as a proxy of aggregate stock prices and the independent variable (X) using aggregate valuations. Chart nine shows that variations in stock prices are steeper and more aggressive than the changes in aggregate valuations.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael
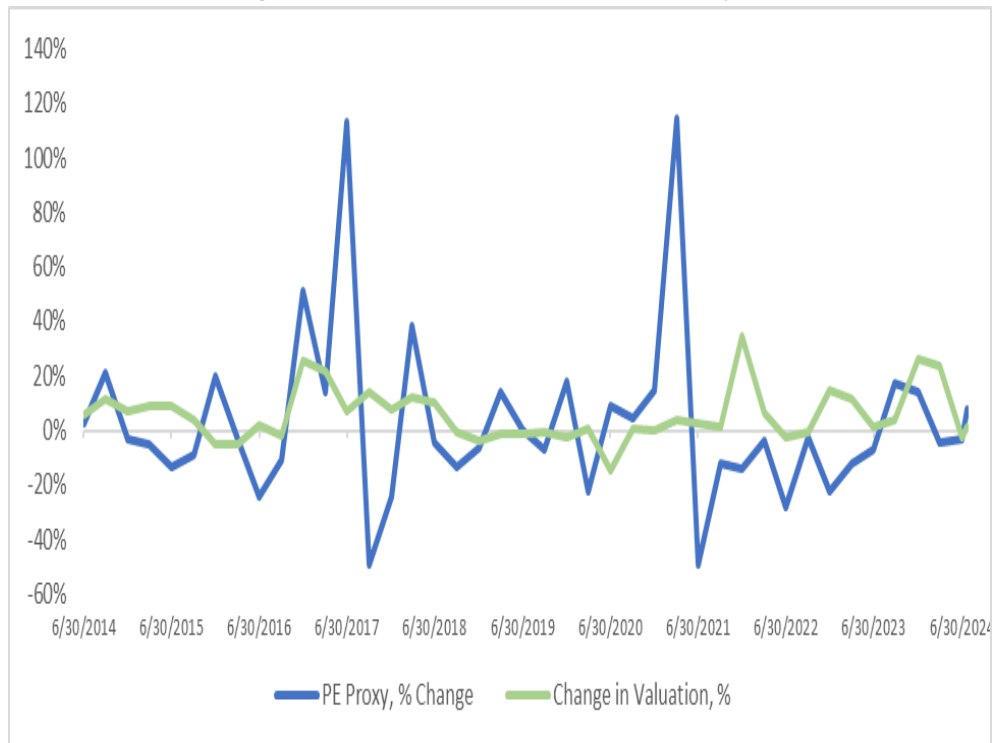
Figure 9: Model 3.1 Chart Analysis

Chart 10: Model Three Chart Analysis using sub model two that uses price to sales as a proxy for the dependent variable.

Chart 10 below shows the chart analysis between all the variables of model three that investigates the relationship between the dependent variable (Y) using the price to sales as a proxy of aggregate stock prices and the independent variable (X) using aggregate valuations. Chart ten shows that variations in stock prices are to a noticeable extent moving with changes in aggregate valuations.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael
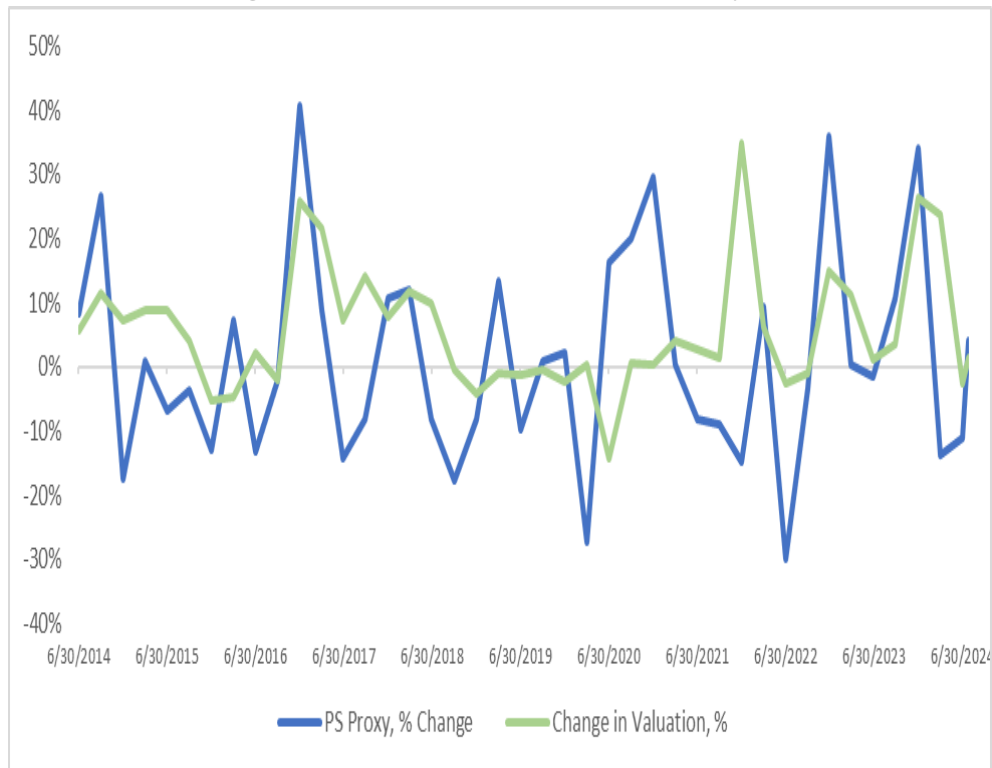
Figure 10: Model 3.2 Chart Analysis

Chart 11: Model Three Chart Analysis using sub model three that uses market cap as a proxy for the dependent variable.

Chart eleven below shows the chart analysis between all the variables of model three that investigates the relationship between the dependent variable (Y) using the market cap as a proxy of aggregate stock prices and the independent variable (X) using aggregate valuations. Chart nine shows that variations in

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Mariam Wael

stock prices are not correlated with the changes in aggregate valuations.

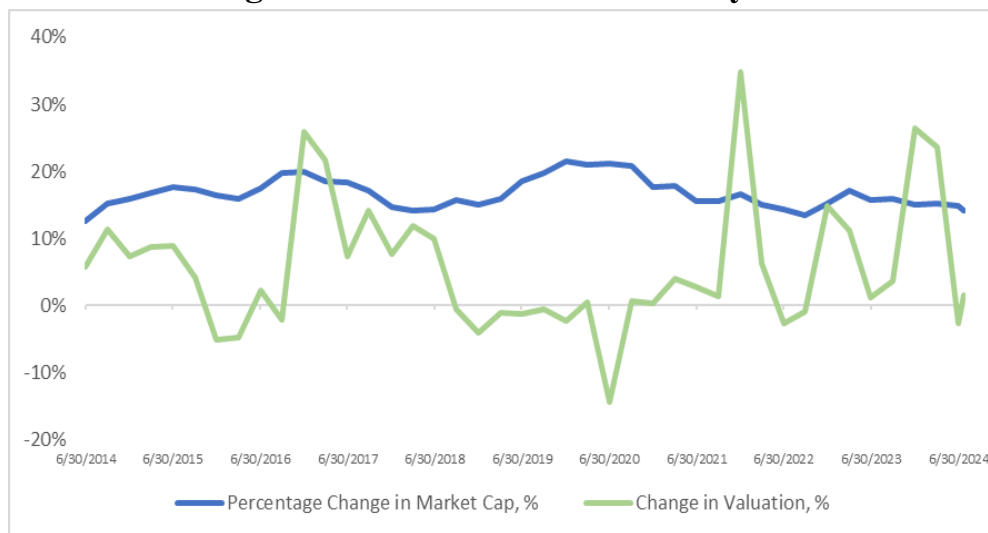## Figure 11: Model 3.3 Chart Analysis

Chart 12: Model Three Chart Analysis using sub model four that uses enterprise value as a proxy for the dependent variable.

Chart twelve below shows the chart analysis between all the variables of model three that investigates the relationship between the dependent variable (Y) using the enterprise value as a proxy of aggregate stock prices and the independent variable (X) using aggregate valuations. Chart twelve shows that variations in stock prices are significantly correlated with the changes in aggregate valuations.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Figure 12: Model 3.4 Chart Analysis
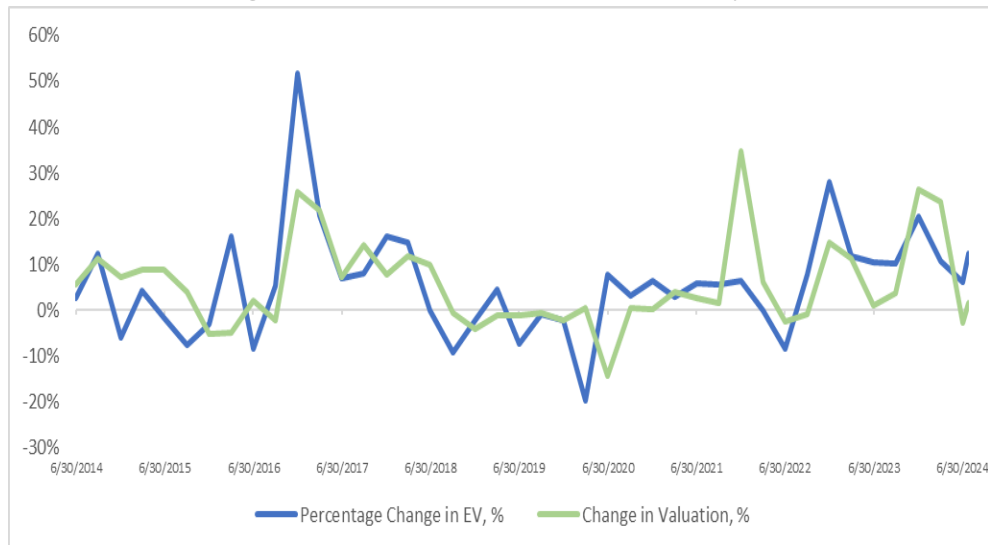
Section 3.3 Empirical Methodology and Model Specification

The primary objective of the research is to investigate the disparities between stock prices and valuations along with determining the determinants of stock price movements. Regression analysis was deployed to determine the significance of the relationship between the chosen models. This study examines three models, each model has four sub models that uses a different proxy for stock prices. Sub model one uses price to earnings ratio as a proxy for stock prices. Sub model two uses price to sales as a proxy for stock prices. Sub model three uses market cap as a proxy for stock prices. Sub model four uses enterprise value as a proxy for stock prices. Below are the regression equations used:

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Mariam Wael

Model 1:

Sub Model 1:

$P/E_i = \beta_0 + \beta_1$ Cash/Market Cap$_i$ + β_2 Debt/Market Cap$_i$ + β_3 Rev. Growth$_i$ + β_4 NI Growth$_i$ + β_5 ROE$_i$ + β_6 FX Losses$_i$ + β_6 CDS Rate$_i$ + β_6 Headline Inflation$_i$ + β_6 FX Rate$_i$ + β_6 Discount Rate$_i$ + ϵ_i

Sub Model 2:

$P/S_i = \beta_0 + \beta_1$ Cash/Market Cap$_i$ + β_2 Debt/Market Cap$_i$ + β_3 Rev. Growth$_i$ + β_4 NI Growth$_i$ + β_5 ROE$_i$ + β_6 FX Losses$_i$ + β_6 CDS Rate$_i$ + β_6 Headline Inflation$_i$ + β_6 FX Rate$_i$ + β_6 Discount Rate$_i$ + ϵ_i

Sub Model 3:

Market Cap$_i = \beta_0 + \beta_1$ Cash/Market Cap$_i$ + β_2 Debt/Market Cap$_i$ + β_3 Rev. Growth$_i$ + β_4 NI Growth$_i$ + β_5 ROE$_i$ + β_6 FX Losses$_i$ + β_6 CDS Rate$_i$ + β_6 Headline Inflation$_i$ + β_6 FX Rate$_i$ + β_6 Discount Rate$_i$ + ϵ_i

Sub Model 4:

Enterprise Value$_i = \beta_0 + \beta_1$ Cash/Market Cap$_i$ + β_2 Debt/Market Cap$_i$ + β_3 Rev. Growth$_i$ + β_4 NI Growth$_i$ + β_5 ROE$_i$ + β_6 FX Losses$_i$ + β_6 CDS Rate$_i$ + β_6 Headline Inflation$_i$ + β_6 FX Rate$_i$ + β_6 Discount Rate$_i$ + ϵ_i

Model 2:

Sub Model 1:

$P/E_i = \beta_0 + \beta_1$ Free Float$_i$ + β_2 Turnover/Market Cap$_i$ + β_3 Number of Trades$_i$ + β_4 Buy Recommendations$_i$ + β_5 Sell Recommendations$_i$ + β_6 Hold Recommendations$_i$ + ϵ_i

Sub Model 2:

$P/S_i = \beta_0 + \beta_1$ Free Float$_i$ + β_2 Turnover/Market Cap$_i$ + β_3 Number of Trades$_i$ + β_4 Buy Recommendations$_i$ + β_5 Sell Recommendations$_i$ + β_6 Hold Recommendations$_i$ + ϵ_i

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Sub Model 3:

Market Cap$i$= $\beta0$ +$\beta1$ Free Float$i$ +$\beta2$ Turnover/Market Cap$i$ +$\beta3$ Number of Trades$i$ +$\beta4$ Buy Recommendations$i$ +$\beta5$ Sell Recommendations$i$ + $\beta6$ Hold Recommendations$i$ + ϵi

Sub Model 4:

Enterprise Value$i$= $\beta0$ +$\beta1$ Free Float$i$ +$\beta2$ Turnover/Market Cap$i$ +$\beta3$ Number of Trades$i$ +$\beta4$ Buy Recommendations$i$ +$\beta5$ Sell Recommendations$i$ + $\beta6$ Hold Recommendations$i$ + ϵi

Model 3:

Sub Model 1:

P/Ei=$\beta0$ +$\beta1$Aggregate Valuations$i$ + ϵi

Sub Model 2:

P/Si= $\beta0$ +$\beta1$Aggregate Valuations$i$ + ϵi

Sub Model 3:

Market Cap$i$= $\beta0$ +$\beta1$Aggregate Valuations$i$ + ϵi

Sub Model 4:

Enterprise Value$i$= $\beta0$ +$\beta1$Aggregate Valuations$i$ + ϵi

4. Results and Discussion

4.1. Results

Simple regression analysis was applied on the three models and each of the associated four models, below is a summary of the results.

Model 1:

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Mariam Wael

Table 4: Results Summary Model 1.1
Table 5: Results Summary Model 1.2

P vs Fundamentals				P vs Fundamentals		
P/E				P/S		
Confidence Level: 95%				Confidence Level: 95%		
Multiple R	54.9%			Multiple R	69.8%	
R Square	30.1%			R Square	48.7%	
Adjusted R Square	7.6%			Adjusted R Square	32.2%	
Significance F	25.54%			Significance F	1.02%	
	P-value	Coefficients			P-value	Coefficients
Intercept	14.7%	0.64		Intercept	0.5%	0.58
Cash/Market Cap, %	3.2%	(2.71)		Cash/Market Cap, %	0.3%	(1.70)
Debt/Market Cap, %	8.7%	0.99		Debt/Market Cap, %	59.0%	0.14
Revenue Growth, %	7.5%	(1.23)		Revenue Growth, %	66.3%	(0.13)
NI Growth, %	4.9%	0.60		NI Growth, %	4.3%	0.27
Weighted Average ROE, %	16.6%	(2.37)		Weighted Average ROE, %	4.2%	(1.57)
FX losses Growth, %	2.6%	(0.02)		FX losses Growth, %	10.0%	(0.01)
CDS Rate, %	59.0%	1.30		CDS Rate, %	0.0%	4.23
Headline (y/y)	21.5%	1.49		Headline (y/y)	95.7%	0.03
FX Rate, EGP	8.5%	(1.20)		FX Rate, EGP	2.7%	(0.69)
Discount Rate, %	48.1%	2.71		Discount Rate, %	49.2%	1.17

Table 4 represents a summarized representation of the regression analysis of Model 1 – Sub Model 1 (that investigates the relationship between stock price movements proxy P/E and fundamental factors). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded 7.6%.

Table 5 represents a summarized representation of the regression analysis of Model 1 – Sub Model 2 (that investigates the relationship between stock price movements proxy P/S and fundamental factors). Results pointed out to a significant relationship of the model and between the variables. The Adjusted R Square recorded 32.2%. Out of the chosen variables,

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Mariam Wael

Cash/market cap, NI Growth, Weighted Average ROE, FX losses growth, CDS rate, and FX rate are significant. While Debt/market cap, Revenue Growth, Headline Inflation, and Discount Rate are not significant. All of the significant variables have negative coefficient with P/S with the exception of NI Growth and CDS rate that have a positive relationship with P/S.

This means that as NI Growth and CDS rates increases, the P/S increases and the stocks become less attractive and more expensive relative to the sales generated. Similarly, and as all other variables have a negative relationship with P/S, P/S increases as changes in those variables decrease.

Model 1:
Table 6: Results Summary Model 1.3
Table 7: Results Summary Model 1.4

P vs Fundamentals				P vs Fundamentals		
Mrkt Cap				EV		
Confidence Level: 95%				Confidence Level: 95%		
Multiple R	57.8%			Multiple R	71.8%	
R Square	33.4%			R Square	51.5%	
Adjusted R Square	12.0%			Adjusted R Square	35.8%	
Significance F	16.64%			Significance F	0.52%	
	P-value	Coefficients			P-value	Coefficients
Intercept	0.0%	0.17		Intercept	10.6%	0.22
Cash/Market Cap, %	42.6%	(0.07)		Cash/Market Cap, %	3.3%	(0.84)
Debt/Market Cap, %	1.6%	0.10		Debt/Market Cap, %	56.3%	0.10
Revenue Growth, %	85.1%	(0.01)		Revenue Growth, %	47.1%	0.15
NI Growth, %	37.4%	0.02		NI Growth, %	2.4%	0.22
Weighted Average ROE, %	24.0%	(0.14)		Weighted Average ROE, %	28.5%	(0.56)
FX losses Growth, %	13.9%	(0.00)		FX losses Growth, %	9.0%	(0.01)
CDS Rate, %	34.5%	(0.16)		CDS Rate, %	7.1%	1.39
Headline (y/y)	25.8%	0.09		Headline (y/y)	26.4%	0.42
FX Rate, EGP	24.7%	(0.05)		FX Rate, EGP	9.5%	(0.36)
Discount Rate, %	69.7%	(0.10)		Discount Rate, %	20.8%	1.51

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Table 6 represents a summarized representation of the regression analysis of Model 1 – Sub Model 3 (that investigates the relationship between stock price movements proxy market cap and fundamental factors). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded 12.0%.

Table 7 represents a summarized representation of the regression analysis of Model 1 – Sub Model 4 (that investigates the relationship between stock price movements proxy EV and fundamental factors). Results pointed out to a significant relationship of the model and between the variables. The Adjusted R Square recorded 35.8%. Out of the chosen variables, Cash/market cap and NI Growth are significant. While Debt/market cap, Revenue Growth, Weighted Average ROE, FX Losses Growth, CDS Rate, Headline Inflation, FX Rate, and Discount Rate are not significant. Out of the significant variables, Cash/Market Cap had a negative coefficient with EV and NI Growth had a positive relationship with EV.

This means that as Cash/Market Cap increases, EV decreases accordingly. Similarly, as NI Growth increases, EV increases as well.

Model 2:

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Table 8: Results Summary Model 2.1
Table 9: Results Summary Model 2.2

P vs Market Factors		
P/E		
95%		
Multiple R		22.0%
R Square		4.8%
Adjusted R Square		-14.8%
Significance F		97.0%
	P-value	Coefficients
Intercept	74.8%	0.02
Weighted Average Free Float, %	53.9%	1.61
Turnover/Market Cap, %	45.5%	(3.44)
Percentage Change in # of trades	54.6%	0.22
Changes in Total Analyst Recommendations,	79.6%	1.14
Changes in BUY Recommendations, %	69.9%	(1.17)
Changes in SELL Recommendations, %	82.4%	(0.08)
Changes in HOLD Recommendations, %	69.6%	(0.42)

P vs Market Factors		
P/S		
95%		
Multiple R		73.8%
R Square		54.4%
Adjusted R Square		45.0%
Significance F		0.0%
	P-value	Coefficients
Intercept	6.7%	(0.04)
Weighted Average Free Float, %	72.4%	0.33
Turnover/Market Cap, %	1.3%	(4.27)
Percentage Change in # of trades	0.0%	0.56
Changes in Total Analyst Recommendations,	18.7%	(2.12)
Changes in BUY Recommendations, %	24.2%	1.29
Changes in SELL Recommendations, %	4.2%	0.27
Changes in HOLD Recommendations, %	6.9%	0.73

Table 8 represents a summarized representation of the regression analysis of Model 2 – Sub Model 1 (that investigates the relationship between stock price movements proxy P/E and market factors). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded -14.8%.

Table 9 represents a summarized representation of the regression analysis of Model 2 – Sub Model 2 (that investigates the relationship between stock price movements proxy P/S and market factors). Results pointed out to a significant relationship of the model and between the variables. The Adjusted R Square recorded 45%. Out of the chosen variables, Turnover/market cap, Percentage Change in number of trades, and Changes in Sell recommendations are significant. Turnover/Market Cap had a negative relationship with P/S, while Percentage Change in number of trades and Changes in Sell Recommendations have a

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

positive relationship with P/S. However, Weighted Average Free Float, Changes in Total Analyst Recommendations, Changes in Buy Recommendations, and Changes in Hold Recommendations are not significant.

This means that as Turnover/Market Cap increases, which is a measure of liquidity, increases, the P/S decreases and the stocks become more attractive and cheaper relative to the sales generated. Similarly, and since Percentage Change in number of trades and changes in Sell recommendations have a positive coefficient, P/S increases as changes in those variables increase.

Model 2:

Table 10: Results Summary Model 2.3
Table 11: Results Summary Model 2.4

P vs Market Factors		
Mrkt Cap		
95%		
Multiple R	33.9%	
R Square	11.5%	
Adjusted R Square	-6.8%	
Significance F	72.9%	
	P-value	Coefficients
Intercept	0.0%	16.8%
Weighted Average Free Float, %	71.3%	-6.5%
Turnover/Market Cap, %	95.9%	1.6%
Percentage Change in # of trades	85.6%	0.5%
Changes in Total Analyst Recommendations,	12.0%	47.6%
Changes in BUY Recommendations, %	20.2%	-26.7%
Changes in SELL Recommendations, %	61.5%	-1.3%
Changes in HOLD Recommendations, %	24.2%	-8.7%

P vs Market Factors		
EV		
95%		
Multiple R	71.8%	
R Square	51.5%	
Adjusted R Square	35.8%	
Significance F	0.0%	
	P-value	Coefficients
Intercept	16.0%	0.02
Weighted Average Free Float, %	46.6%	(0.44)
Turnover/Market Cap, %	0.1%	(3.86)
Percentage Change in # of trades	0.0%	0.48
Changes in Total Analyst Recommendations,	89.2%	0.14
Changes in BUY Recommendations, %	73.4%	(0.24)
Changes in SELL Recommendations, %	27.6%	0.09
Changes in HOLD Recommendations, %	55.1%	0.15

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

Table 10 represents a summarized representation of the regression analysis of Model 1 – Sub Model 3 (that investigates the relationship between stock price movements proxy Market Cap and market factors). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded -6.8%.

Table 11 represents a summarized representation of the regression analysis of Model 1 – Sub Model 4 (that investigates the relationship between stock price movements proxy EV and market factors). Results pointed out to a significant relationship of the model and between the variables. The Adjusted R Square recorded 35.8%. Out of the chosen variables, Turnover/market cap and Percentage Change in number of trades are significant. Turnover/Market Cap had a negative relationship with EV, while Percentage Change in number of trades had a positive relationship with EV. However, Weighted Average Free Float, Changes in Total Analyst Recommendations, Changes in Buy Recommendations, Changes in Buy Recommendations, and Changes in Hold Recommendations are not significant.

This means that as Turnover/Market Cap increase, which is a measure of liquidity, increase, EV decreases; given the negative coefficient. Similarly, and since Percentage Change in number of trades has a positive coefficient, EV increases as changes in those variables increase.

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

Model 3:

Table 12: Results Summary Model 3.1
Table 13: Results Summary Model 3.2

P vs Valuation			P vs Valuation		
P/E			P/S		
95%			95%		
Multiple R	6.4%		Multiple R	24.7%	
R Square	0.4%		R Square	6.1%	
Adjusted R Square	-2.1%		Adjusted R Square	3.8%	
Significance F	68.9%		Significance F	11.4%	
	P-value	Coefficients		P-value	Coefficients
Intercept	74.8%	0.02	Intercept	70.4%	(0.01)
Change in Valuation, %	53.9%	0.21	Change in Valuation, %	11.4%	0.41

Table 12 represents a summarized representation of the regression analysis of Model 3 – Sub Model 1 (that investigates the relationship between stock price movements proxy P/E and Aggregate Valuations). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded -2.1%.

Table 13 represents a summarized representation of the regression analysis of Model 3 – Sub Model 2 (that investigates the relationship between stock price movements proxy P/E and Aggregate Valuations). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded 3.8%.

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

Model 3:

Table 14: Results Summary Model 3.3
Table 15: Results Summary Model 3.4

P vs Valuation			P vs Valuation		
Market Cap			EV		
95%			95%		
Multiple R	14.8%		Multiple R	51.9%	
R Square	2.2%		R Square	26.9%	
Adjusted R Square	-0.2%		Adjusted R Square	25.1%	
Significance F	34.9%		Significance F	0.0%	
	P-value	Coefficients		P-value	Coefficients
Intercept	0.0%	0.17	Intercept	22.5%	0.02
Change in Valuation, %	34.9%	(0.03)	Change in Valuation, %	0.0%	0.62

Table 14 represents a summarized representation of the regression analysis of Model 1 – Sub Model 3 (that investigates the relationship between stock price movements proxy Market Cap and Aggregate Valuations). Results pointed out to an insignificant relationship of the model and between the variables. The Adjusted R Square recorded -0.2%.

Table 15 represents a summarized representation of the regression analysis of Model 3 – Sub Model 4 (that investigates the relationship between stock price movements proxy EV and Aggregate Valuations). Results pointed out to a significant relationship of the model and between the variables. The Adjusted R Square recorded 25.1%. The changes in the independent variable recorded a

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

significant P-Value and has a positive relationship with the changes in EV. This means that as changes in Aggregate Valuation increase, EV increases; given the positive coefficient.

4.2. Discussion

After conducting thorough analysis for 68 companies in the Egyptian Stock Exchange between 2014 -2024 using quarterly data, and despite that results seem puzzling and unjustifiable, results simply reflect a nature of a market, an economy, a country, and a time horizon that witnessed a vast variety of economic, geopolitical, environmental, and monetary practices with a different impact on the price movements.

The Egyptian stock market is primarily driven by investor sentiment that, in theory, is impacted by local and global events that can have a direct and in direct impact on listed companies and "hypothetically" stock prices. However, the Egyptian market has been driven as well by market speculations, that play a role that is as significant as fundamentals and macroeconomic variables.

Market and investor speculations' impact on stock price movements is as significant as fundamental drivers, given that in the Egyptian Stock market, investors price in speculations in valuing companies' prices, where some names become extremely overvalued despite the absence of a solid fundamental story and

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

others become extremely undervalued despite a value accretive story and a significant valuation gap.

During and between 2014 and 2024 Egypt witnessed several events and was impacted by a set of global events as well, each of a different impact. A set of impactful events between political instability, devaluations, tightening and easing monetary practices, covid pandemic, and geopolitical instabilities, each of which with a different impact on price movements, if combined all together could provide a logical justification for the puzzling results.

References

Alexakis, Panayotis, and Nicholas Apergis. "ARCH Effects and Cointegration: Is the Foreign Exchange Market Efficient?" *Journal of Banking & Finance*, vol. 20, no. 4, May 1996, pp. 687–697, https://doi.org/10.1016/0378-4266(95)00027-5. Accessed 10 May 2020.

Almashaqbeh, Mohammad, et al. "Factors Affecting Share Prices: A Literature Revisit." *PROCEEDINGS of GREEN DESIGN and MANUFACTURE 2020*, vol. 2339, no. 1, 2021, https://doi.org/10.1063/5.0045110.

Damodaran, Aswath. "Valuation Approaches and Metrics: A Survey of the Theory and Evidence." *Foundations and Trends® in Finance*, vol. 1, no. 8, 2006, pp. 693–784, https://doi.org/10.1561/0500000013. Accessed 6 Dec. 2019.

Dechow, Patricia M., et al. "Stock Prices & Earnings: A History of Research." *SSRN Electronic Journal*, 2013, https://doi.org/10.2139/ssrn.2347193.

El Abd, R. (2016). *Determinants of stock returns: Evidence from Egypt*

Equity Prices: Does Valuation Matter? An Examination of the Disparity ...

Mariam Wael

[Master's thesis, The American University in Cairo]. AUC Knowledge Fountain. https://fount.aucegypt.edu/etds/326

Eldomiaty, Tarek, et al. "The Associations between Stock Prices, Inflation Rates, Interest Rates Are Still Persistent." *Journal of Economics, Finance and Administrative Science*, vol. 25, no. 49, 14 Oct. 2019, pp. 149–161, https://doi.org/10.1108/jefas-10-2018-0105.

Fama, Eugene F., and Kenneth R. French. "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives*, vol. 18, no. 3, 2004, pp. 25–46.

Handayani, Heny, et al. "Determinants of the Stock Price Volatility in the Indonesian Manufacturing Sector." *International Research Journal of Business Studies*, vol. 11, no. 3, 4 Dec. 2018, pp. 179–193, https://doi.org/10.21632/irjbs.11.3.179-193.

Harvey, Campbell R. "Predictable Risk and Returns in Emerging Markets." *Ssrn.com*, 1994, papers.ssrn.com/sol3/papers.cfm?abstract_id=226967.

Khamis, Rabab, and Mahmoud Abdou. *Determinants of Stock Prices in the Egyptian Stock Market: Traditional Asset Pricing Models versus Behavioural Asset Pricing Models*. 2019.

LeRoy, Stephen F, and Richard D Porter. "The PresentValue Relation: Tests Based on Implied Variance Bounds." *Econometrica*, vol. 49, no. 3, 1981, pp. 555–574, www.jstor.org/stable/pdf/1911512.pdf, https://doi.org/10.2307/1911512. Accessed 27 Aug. 2019.

Mehmood, Arshad, et al. "Determinants of Stock Price Volatility: Evidence from Cement Industry." *Accounting*, vol. 5, no. 4, 2019, pp. 145–152, https://doi.org/10.5267/j.ac.2019.2.002.

Nazir, Mian Sajid, et al. "Determinants of Stock Price Volatility in Karachi Stock Exchange: The Mediating Role of Corporate Dividend Policy." *International Research Journal of Finance and Economics*, vol. 55, 1 Nov. 2010, pp. 100–107,

Equity Prices: Does Valuation Matter? An Examination of the Disparity …

Mariam Wael

www.researchgate.net/publication/268049844_Determinants_of_Stock_P rice_Volatility_in_Karachi_Stock_Exchange_The_Mediating_Role_of_ Corporate_Dividend_Policy

OSENI, Isiaq Olasunkanmi, and Philip Ifeakachukwu NWOSA. "Stock Market Volatility and Macroeconomic Variables Volatility in Nigeria: An Exponential GARCH Approach." *European Journal of Business and Management*, vol. 3, no. 12, 25 Nov. 2011, pp. 43–53, www.iiste.org/Journals/index.php/EJBM/article/view/721.

Sharpe, Steven A. "Reexamining Stock Valuation and Inflation: The Implications of Analysts' Earnings Forecasts." *SSRN Electronic Journal*, 2001, https://doi.org/10.2139/ssrn.278550.

Shiller, Robert. *Do Stock Prices Move Too Much to Be Justified by Subsequent Changes in Dividends?* 1981.

Walid, Chkili, et al. "Stock Market Volatility and Exchange Rates in Emerging Countries: A Markov-State Switching Approach." *Emerging Markets Review*, vol. 12, no. 3, Sept. 2011, pp. 272–292, https://doi.org/10.1016/j.ememar.2011.04.003. Accessed 2 July

Yogaswari, D. D., Nugroho, A. B., & Astuti, N. C. (2012). The effect of macroeconomic variables on stock price volatility: Evidence from Jakarta Composite Index, agriculture, and basic industry sector. *Proceedings of the International Conference on Economics and Finance Research*, 46, 99–103. https://doi.org/10.7763/IPEDR.2012.V46.18

Zhao, Ruixiao. "Research on Stock Valuation of Listed Companies and Influencing Factors of Stock Price Profitability." *BCP Business & Management*, vol. 38, 2 Mar. 2023, pp. 699–708, https://doi.org/10.54691/bcpbm.v38i.3761. Accessed 23 Mar. 2025.