



Dividend Yield and Stock Price Volatility: Evidence from Dhaka Stock Exchange

Submitted to: BBA Program Office Department of Finance Faculty of Business Studies University of Dhaka	
Supervised by: Dr. Mahmood Osman Imam Professor Department of Finance University of Dhaka	Submitted by: Hemal Karmakar ID: 22-005 Section: B BBA 22 nd Batch Department of Finance University of Dhaka

Date of Submission: August 31, 2020

Letter of Transmittal

August 31, 2020

Dr. Mahmood Osman Imam

Professor

Department of Finance

University of Dhaka

Subject: Submission of the Internship Report on “Dividend Yield and Stock Price Volatility: Evidence from Dhaka Stock Exchange”.

Dear Sir,

It is my distinguished pleasure to present my report on “Dividend Yield and Stock Price Volatility: Evidence from Dhaka Stock Exchange”. I have prepared this report based on non-financial companies trading in Dhaka Stock Exchange as an academic requirement for the completion of my BBA internship. This report provided me with the insights of the determinants that contribute to the stock price movement of companies listed in DSE.

I would like to express my gratitude to you for your invaluable contribution and support in preparing this report.

Sincerely yours,

.....

Hemal Karmakar

ID No: 22-005

BBA 22nd Batch

Department of Finance, University of Dhaka

Letter of Certification

This is to certify that the internship report regarding the topic “Dividend Yield and Stock Price Volatility: Evidence from Dhaka Stock Exchange” has been prepared and submitted by Hemal Karmakar, ID: 21-005, BBA 22nd Batch, under my direct supervision as per the requirement of his Bachelor of Business Administration (BBA) program in Finance from University of Dhaka. His work and contribution to accomplish this task satisfied me. I wish him good luck for his future endeavors.

.....

Dr. Mahmood Osman Imam

Professor

Department of Finance

University of Dhaka

Declaration

I would like to declare that I tried to prepare this internship report on “Dividend Yield and Stock Price Volatility: Evidence from Dhaka Stock Exchange” uniquely. I collected the required data from Dhaka Stock Exchange, and Company Annual Reports. I have cited the background knowledge and literature review of the report using Harvard referencing.

I take full responsibility if this report causes any loss to a third party or any copyright is breached.

.....

Date and Signature

Hemal Karmakar

ID: 22-005

BBA 22nd Batch

Department of Finance

University of Dhaka

Acknowledgement

I would like to express my gratitude to Almighty God for providing me the strength, patience, and perseverance to prepare this project paper on Dividend Yield and Stock Price Volatility. The constant support and guidance of my supervisor Dr. Mahmood Osman Imam, Professor, Department of Finance, helped to complete the report. I am indebted to him for providing me his invaluable time, and sharing his knowledge and resources that are essentially required for conducting this research work. I am also thankful to Mohammad Shaiful Islam, Assistant Manager, IDLC Finance Limited for guideline, support and supervision during the internship period.

Executive Summary

This study examined if Dividend Yield is a significant determinant of Stock Price Volatility of non-financial firms listed in Dhaka Stock Exchange. Data of 75 companies from seven different industries were used from year 2014 to 2018, with exception in stock price, earnings per share, and total asset data; the first two variables required data from 2012 to 2018, and the last one from 2013 to 2018. The study was conducted taking Dividend Yield as the explanatory variable and Earnings Volatility, Long-term debt, Firm size, and Asset growth as control variables. We also used dividend payout as the explanatory variable in other models because dividend yield and dividend payout are highly correlated. We used Panel regression analysis to conduct the research, and used Fixed Effects Model using Stata 16. According to Hausman test, Fixed effects model rather than Random Effects Model is appropriate.

At first, we ran the Fixed Effects regression model using conventional standard error and firm fixed effects, but the model failed to provide a satisfactory output. Only 42% (Rho) of the variance is due to the differences across the panel. In the next model, we included time Fixed Effects and obtained a better interclass correlation (83.8%). These two models used conventional standard error, but we also ran two models using robust standard error to adjust standard error for the cluster of 75 firms that controls the heteroscedasticity. The Model with no time fixed effects and robust standard error suggests that Dividend Yield and Earnings Volatility are the significant explanatory variables. Dividend yield is negatively related to stock price volatility while earnings volatility is positively related. In the next model, we added time fixed effects to the panel regression model, this time, earnings volatility and firm size are significant variables; both are positively associated with stock price volatility.

We ran four other models similar to the previous ones with an exception that here dividend payout is the explanatory variable. The model with conventional standard error is not a good fit, and it suggests that long-term debt is the significant variable. But, after adding time fixed effects we found firm size as the significant variable which is positively associated with stock price volatility. Furthermore, the model with robust standard error and no time fixed effects suggests dividend payout, earnings volatility, and long-term debt are significant, and with time fixed effects earnings volatility and firm size are significant.

We introduced Lag in the explanatory variables Dividend Yield/Dividend Payout to correct endogeneity. We again ran the previous eight model, this time with Lag indicator in Dividend Yield/Dividend Payout. There are hardly any observable changes in the significance of explanatory and control variables. The model with robust standard error and time fixed effects yield similar output as the previous model with no lag.

Finally, we conducted two diagnostic tests for heteroskedasticity and time-fixed effects. The results of the tests suggest that data is heteroskedastic, and that time fixed effects are required when running fixed effects panel regression. Some of our models included robust standard error to control the heteroskedasticity and year dummy to include time fixed effects.

Table of Contents

Letter of Transmittal	i
Letter of Certification	ii
Declaration	iii
Acknowledgement	iv
Executive Summary	v
PART 1.....	1
Chapter 1: Introduction	1
1.1 Background of the Study	2
1.2 Origin of the Report	3
1.3 Research Question	3
1.4 Research Objectives	3
1.5 Limitations of the study	4
Chapter 2: Literature Review	5
Chapter 3: Data Set and Research Methodology	9
3.1 Methodology of the Study	10
3.2 Data and Variables	12
Chapter 4: Analysis of Findings	16
Chapter 5: Conclusion.....	42
PART 2:	44
Internship Experience at IDLC Finance Limited.....	44
About IDLC Finance Limited.....	45
Mission, Vision, and Values of IDLC Finance Limited	45
Range of products and services offered by IDLC Finance Limited	46
Work Experiences at IDLC Finance Limited	48

References	52
Appendix	54

List of Graphs	Page Number
Graph 1 and Graph 2	17
Graph 3	18
Graph 4 and Graph 5	19
Graph 6	20
Graph 7	21
Graph 8 and Graph 9	22
Graph 10	23
Graph 12	24
Graph 13	25
Graph 14	26
Graph 15	27
Graph 16 and Graph 17	28
Graph 18 and Graph 19	29

List of Tables	Page Number
Table 1	13
Table 2	32
Table 3	34
Table 4	36
Table 5	38
Table 6	40

List of Figures	Page Number
Figure 1	46
Figure 2 and Figure 3	47
Figure 4	48

List of Abbreviations
FE= Fixed Effects
RE= Random Effects
EPS= Earnings Per Share
DSE= Dhaka Stock Exchange

PART 1



Chapter 1: Introduction

1.1 Background of the Study

Dividend policy is concerned with a firm's decision to pay its earnings to the shareholders or to retain it. Dividend can be paid in the form of cash or stock. The decision to pay dividend has multiple effects on the investors, but there are some debates on the impact of dividend policy on the firm and financial market (ILABOYA and AGGREH, 2013). Firm's dividend policy also impacts the capital structure; by not paying earnings as dividends firm can create internal fund in the form of retained earnings which puts the firm into a good liquidity position. Researchers throughout the world developed various theories regarding dividend such as Dividend irrelevancy theory, Information content or Signaling theory, and Clientele effect. These theories formed the basis of analysis and over time these theories have been criticized and modified based on empirical evidence. Dividend policy theories are still broadly discussed issue in the corporate finance world and it is still debatable among policy makers, researchers, and finance managers if dividend yield or payout has any impact on share price volatility (Masum, 2014).

Dividend yield is the return that is calculated dividend per share as percentage of stock's closing price per share. It signifies how much return a stock generated based on the current market price. Dividend yield is an important indicator of a firm's ability to pay the investors for their investment, and a consistent payment of dividend indicates that firm is progressing good, and is expected to continue to do so. However, dividend can also be a mask to hide firm's poor performance, and firms do so by distributing dividend even if they do not have the capability to do so, and thereby, taking away the money from future reinvestments for growth and expansion. Firms with short-term view pursue such aggressive strategy to please the investors and provide wrong signal to the market to manipulate stock price; such aggressive endeavor will, needless to say, cut slack in the future, and might hurt the investors. Investors, aware and knowledgeable of financial market, cannot be easily deceived by such manipulation, and thereby they look at firm's other financial conditions such as asset growth, debt level, earnings, and market capitalization. They take their decision to buy, hold, or sell their stocks based on such variables as well rather than just dividend.

Stock price volatility can be defined as a systematic risk faced by investors holding the ordinary shares of a publicly traded company. Investors pay close attention to the changes in their stock price because it affects their total return, and the level of risk they are exposed to. Bangladeshi stock market is extremely volatile, and investors does not trust the market due to poor regulation

that encourage artificial price change by several influential companies and individuals (Masum, 2014). Investors of Bangladesh are highly concerned about how much volatile their stock holding is. The investors, mostly long-term, pay close attention to firm dividend returns and the riskiness of their investment to determine the decision of whether to buy or to sell their holdings.

This study will test this dilemma of whether dividend yield has any impact on share price volatility for companies listed in Dhaka Stock Exchange along with the other pertinent variables such as long-term debt level, firm's asset growth, earnings volatility, and firm size that also affect price volatility. These variables were selected from empirical studies by Baskin (1989) in the United States context and Allen and Rachim (1996) based on Australia. However, the study has some differences from the two studies; it analyses the stock market of Bangladesh listed in Dhaka Stock Exchange, it does not include financial organization such as Banks, Insurance, and Non-bank financial institutions, and it includes the most recent 5 years' data of the companies under consideration.

1.2 Origin of the Report

I prepared this report as an academic requirement for a BBA student of Department of Finance, University of Dhaka relating to the internship. The study of the report relates to finding how dividend yield affects the price volatility entailing the stocks of Dhaka Stock Exchange. However, dividend paying companies other than those in financial sectors have been selected to conduct the research. This topic was assigned to me under the academic supervision of Dr. Mahmood Osman Imam, Professor, Department of Finance, University of Dhaka, and it is titled "Dividend Yield and Stock Price Volatility: Evidence from Bangladesh". This particular study reflects my knowledge of stock market and the factors that contribute as the determinant of the market's price volatility.

1.3 Research Question

Does dividend yield have an impact on the price volatility in Bangladeshi stock market?

1.4 Research Objectives

The objective of this study is to examine the impact of dividend policy, dividend yield in particular, on firm's stock price volatility listed in Dhaka Stock Exchange.

There are other specific objectives which include:

- Assess the extent to which dividend yield explains the price volatility

- Examine the impact of other control variables (i.e. earnings growth, debt, size, and asset growth) on stock price volatility

1.5 Limitations of the study

- The study includes variables, such as earnings volatility, dividend yield, dividend payout, asset growth, and long-term debt, that are firm specific and thereby, ignores systematic risk factors such as inflation, GDP growth, and treasury rate. These macro variables might be important determinants of stock price volatility.
- The study explains price volatility of only dividend paying non-financial firm and does not explain the price volatility of firm that did not pay any dividend in the year from 2014 to 2018. If these non-dividend paying firms were included, the impact of dividend policy on price volatility might have been more explanatory.
- The study is conducted on short panel using only 5 years' data, but we might have captured better output if longer time series were taken.



Chapter 2: Literature Review

Dividend policy and its relation to stock price volatility is a widely researched area, and the findings of several researches are much conflicting. Academicians and researchers developed several theories related to dividend policy; one of the most popular theories was proposed by Miller and Modigliani (1961) popularly known as Dividend Irrelevance Theory, and according to this theory firm's dividend policy is not relevant because it does not affect investors, and therefore, change the stock price. Shareholders can utilize the Homemade Dividend Strategy to fulfill their cash flow requirements.

Al-Malkawi (2007) proposed another popular theory called Bird-in-hand theory which defines that in a world of uncertainty and information asymmetry, dividends are valued differently from retained earnings. This theory did not gain much support due to the lack of empirical findings; however, Gordon and Shapiro (1956), Lintner (1962) and Walter (1963) supported this theory. This theory is in conflict with MM proposition because it states that managers engage in activities that could be costly to the stockholders, such as undertaking non-profitable investments, and providing unnecessarily high management compensation. Shareholders ultimately bear the costs of such management misconduct, and therefore, shareholders of firms with excess free cash flow generally want higher dividend payment.

Petit (1972) observed that dividend payment carries information regarding the firm's prospect that can be observed by the stock price movements. However, Lintner (1956) thinks that management does not want to curb dividend payments even though it is necessary, and they only increase dividends when it is believed that firm's earnings prospects has increased permanently.

Jones (2005) observed that dividends are cash payment that common stockholders get directly from the company, and these build the foundation of stock valuation. He argued that share price respond to any unexpected dividend change announcement depends on dividend preference of marginal shareholders of the firm while other variables are held constant (Denis et al., 1994). Furthermore, the author mentioned that if there any changes in dividend policy, firm can expect to experience upward or downward trends in stock returns.

Nazir et al., (2011) conducted research on Pakistan share market and found that dividend yield and share prices are positively related. This study suggests that dividend policy affects the share price volatility in Pakistan, and it also proposed that signaling effect is also relevant in determining the share price volatility. Hashemijoo et al., (2012) examined the relationship between dividend policy

and share price volatility based on consumer product companies listed in Malaysian stock market, and the empirical results of this study showed significant negative relationship between stock price volatility with two main variables (dividend yield and dividend payout). Moreover, a significant negative relationship between share price volatility and size is found. Based on findings of this study, dividend yield and size have most impact on share price volatility amongst predictor variables. Masum (2014) empirically estimated excess stock market returns for all the thirty banks listed in Dhaka Stock Exchange for the period of 2007 to 2011. The study examined the kind relationship, if any, that exists between dividend policy and stock market returns of private commercial banks in Bangladesh, and to what extent the degree of the returns on stocks can be explained by their respective dividend policy for the same period of time. The results of this study indicate that Dividend Policy has significant positive effect on Stock Prices.

A study on the United States was conducted by Friend and Puckett (1964) and they tried to find the connection between dividend and share prices. Alongside their main variables they included other control variables that might influence a firm. The study found that one dollar of dividend had great impact on the value of a firm's retained earnings. The study also identified that firm with little or no growth potential had positive relationship between dividends and stock prices

Finally, Baskin's (1989) analysis showed a significant negative relationship between dividend yield and dividend payout and share price volatility. Baskin studied the 2344 U.S. firms over a period of 1967 to 1986. He suggested that dividend policy can be used to control the stock price volatility in the stock market. His analysis concludes that 1% increase in dividend yield results in 2.5% decrease in Stock Price Volatility.

Allen and Rachim (1996) reported a positive relationship between share price volatility and dividend yield, but a negative relationship between share price volatility and dividend payout. However, in their studies the close relationship between dividend yield and dividend payout ratio may pose a small problem as there are a number of factors that influence both dividend policy and price volatility.

Consistent to (Allen & Rachim, 1996) Australia results, (Hussainey et al., 2011) reported negative association between dividend payout and stock price volatility, but they found negative relationship between dividend yield and price volatility. According to their study, Dividend Payout

holds the strongest relationship with between share price volatility, while firm size and long-term debt are the most significant among the control variables.



Chapter 3: Data Set and Research Methodology

3.1 Methodology of the Study

Some researchers have found a negative relationship between dividend yield and share price volatility while others have found a positive relationship. Some studies also concluded that dividend yield explains the price volatility most amongst the predictor variables. Based on these contradictory findings this study provides the following proposition for companies listed in Dhaka Stock Exchange:

The Proposition:

Dividend yield has significant inverse relationship with share price volatility for companies listed in Dhaka Stock Exchange.

The empirical model:

We have used Panel Regression Model, using Stata 16, in order to determine the relationship between stock price volatility and dividend yield. The main predictor variable is Dividend Yield, and in line with recommendation by Baskin (1989), we used other control variables such as Asset Growth, Earnings Volatility, Long Term Debt, and Firm Size.

The following regression equation can be developed:

$$PVOL = \alpha + \beta_1 DYIELD + \beta_2 EVOL + \beta_3 LDEBT + \beta_4 SIZE + \beta_5 GROWTH + \varepsilon$$

Here, α is the intercept, β is the regression coefficient, DYIELD= Dividend yield, EVOL= Earnings volatility, LDEBT= Long term debt, SIZE= Size of the firm, GROWTH= Asset growth rate, and ε = Stochastic error term.

We also used another model which uses Dividend Payout as the explanatory variables rather than dividend yield because these two variables possess high correlation.

The following regression equation can be developed:

$$PVOL = \alpha + \beta_1 DPAYOUT + \beta_2 EVOL + \beta_3 LDEBT + \beta_4 SIZE + \beta_5 GROWTH + \varepsilon$$

Choosing among the Panel Regression Models:

There are three Panel regression models such as Pooled OLS Model, Fixed Effects Model, and Random Effects Model. First we choose between Random Effects a Model and Pooled OLS model using *Breusch-Pagan Lagrange multiplier test*. This test specifically determines whether we should run simple OLS regression or Random effects regression. The null is that variance across units is zero which means that there is no significant difference across units or there are no panel effects. If the p-value is less than level of significance we can say that null hypothesis is rejected and thereby, random effects model is appropriate because there are significant variances across the units. Then we choose between Random Effects Model and Fixed Effects Model using *Hausman test*. The hypotheses are:

H_0 : Random effects model generate consistent coefficient

H_A : Fandom effects model generate consistent coefficient

The result of this depends on the p-value; if the p-value is higher than significance level the null hypothesis is accepted, and if it is lower than fixed effects model is appropriate for the data set.

Diagnostic Tests: The study involves the following diogenitic tests which were conducted using Stata 16:

i) Testing for time-fixed effects: When running a Fixed Effects Model, we need to see that if time fixed effects are needed. It tests if dummies for all the years are equal to zero (0), and if they are then FE model does not need time fixed effects. The null hypothesis is that all year's coefficients are jointly equal to zero. If the p-value is not less than level of significance then we can reject the null hypothesis.

ii) Testing for heteroskedasticity: If data are heteroskedastic, it means that variance of the error terms are not constant. For example: Error terms associated with very large firms such as Power Grid Company might have larger variances than error terms associated with smaller firms such as Monno Jute Stafflers Ltd. The presence of heteroskedasticity can lead biased standard errors terms. The null hypothesis is that variances of the errors terms are constant (homoskedasticity). If the p-value is less than level of significant then we reject the null hypothesis and conclude that data is heteroskedastic. We can deal with heteroskedasticity in FE and RE model by using Robust as the

Standard error term in the regression. The use of robust standard errors gives a more accurate p values even though it does not change coefficient estimates.

iii) Testing for serial correlation: If data has serial correlation it results in standard errors of the coefficients to be smaller than they actually are and higher R-squared. Lagrange-Multiplier test for serial correlation is done to check if error terms are autocorrelated. If the value of P-value of F Statistic is greater than the level of significance then the dataset does not have serial correlation.

3.2 Data and Variables

Data collection: The study is conducted using 75 dividend paying firms listed in Dhaka Stock Exchange from the seven industries. Data has been collected from DSE Library and Financial Statements of the companies within the time frame from 2014 to 2018. The sample consists of seven industries including Food and Allied, Pharmaceuticals and chemicals, Engineering, Cement, Fuel and Power, Textile, and Miscellaneous. The following two criteria will be used for selecting the companies:

- 1) At least one dividend payments during the period from 2014 to 2018.
- 2) No stock split during 2014 to 2018

Daily price data and dividend data were collected from DSE library for the 7 years (2012-2018). Other data such as Earnings per share, Total asset, and Long-term debt were collected from individual company's annual report.

Variables: The following variables are used in the model and the formulas are used for measuring the variables:

Table 1: Variables and their measurement

Variable	Measurement
Stock price volatility (P-VOL)	$= \sqrt{\frac{\sum_{t=1}^3 \{(H_{it} - L_{it}) / (\frac{H_{it} + L_{it}}{2})\}^2}{3}}$
Dividend payout (D-PAYOUT)	$= DPS_{it} / EPS_{it}$
Dividend yield (D-YIELD)	$= DPS_{it} / MV_{it}$
Earnings volatility (E-VOL)	$= \sqrt{\frac{\sum_{t=1}^3 (EPS_{it} - \overline{EPS})^2}{3}}$
Long term debt (L-DEBT)	$= LD_{it} / Asset_{it}$
Size of the firm (SIZE)	$= \ln MV_{it}$
Asset growth rate (GROWTH)	$= \frac{\Delta Asset_{it}}{Asset_{it}}$

Here,

H_{it} = Yearly adjusted high price of i^{th} company for the year t .

L_{it} = Yearly adjusted low price of i^{th} company for the year t .

DPS_{it} = Cash dividend per share of i^{th} company for the year t .

MV_{it} = Market capitalization of i^{th} company for the year t .

EPS_{it} = Earnings per share of i^{th} company for the year t .

\overline{EPS} = 3 years moving average of EPS

LD_{it} = Long term debt of i^{th} company for the year t .

$Asset_{it}$ = Total asset of i^{th} company for the year t .

$\Delta Asset_{it}$ = Change in total asset of i^{th} company for the year t .

Definition of variables

Price volatility (P-VOL): It is the annual range of adjusted stock price for each year and it is found by dividing the average highest and lowest prices obtained in the year and then squared. A 3-years moving average is done, and a square root transformation is applied to get the 3-year moving standard deviation. We used data from 2012 to 2018 to determine the moving standard deviation.

An example of price adjusted price is given in *Appendix I* for the company Mozaffar Hossain Spinning Mills Ltd. (Trading code: MHSML). The company's dividend record date for the year 2014 was 24th September and the next trading date is 29th September. All the daily price before 29th September were divided by 1.25 for adjustment; the firm's stock dividend was 25%, and hence 1.25. This adjustment is required because after the record date the total number of outstanding shares increases. All the price data of stock dividend payers were adjusted using similar method.

Dividend yield (D-YIELD): This is expressed as the dividend per share as a percentage of the share price. Data were calculated by dividing the cash dividend per share by year-end closing price. Dividend is calculated on gross dividends, i.e. excluding tax credits.

Payout ratio (D-PAYOUT): It is expressed as the ratio of dividend per share to earnings per share. It was obtained by dividing cash dividend per share (DPS) by earnings per share.

Size of the firm (SIZE): This is the year-end share price multiplied by the number of ordinary shares outstanding. A transformation using the base 10 logarithm was then applied to obtain a variable to represent orders of magnitude.

Earnings volatility (E-VOL): It represents the Coefficient of Variation (CV) of EPS. It was calculated by taking 3-year moving standard deviation for each year and each company, and then the standard deviation was divided by average of EPS to obtain CV. For example: for the year 2014 TOSRIFA's CV is 0.089 and Standard deviation is 0.24. To obtain these two data we took the average EPS for the year 2012, 2013 and 2014 which is 2.69.

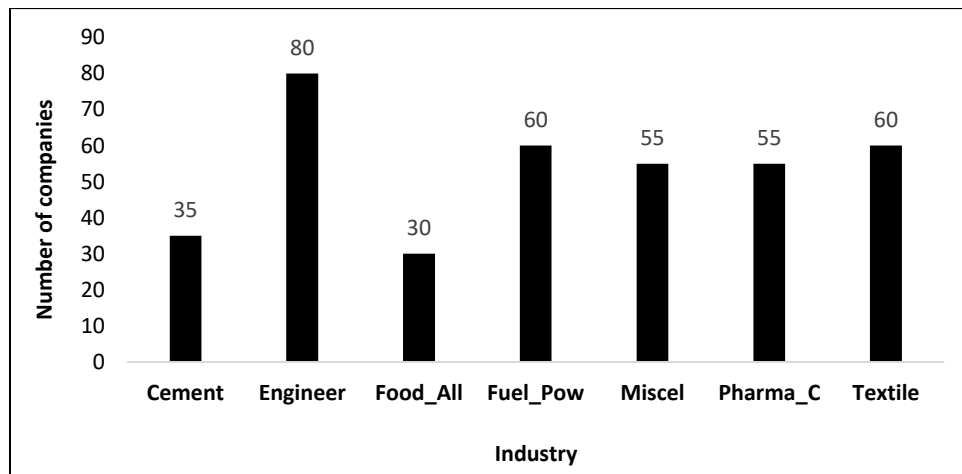
Long-term debt (L-DEBT): This is the ratio of long-term interest-bearing debt to total asset. Long-term debt does not include current obligation of term loan, debentures, and mortgages. Data of long-term debt and total asset were obtained from company financial statements.

Growth in assets (GROWTH): This is the rate of change in firm's total asset from one year to the another. For example: In 2013, Active Chemical's total asset was BDT 1,740,088,768, and in 2014, it increased to BDT 3,159,028,645 indicating a growth rate of 81.54% for the years of 2014. For the year 2015 total asset was BDT 4,143,876,395; total asset increased from 2014 to 2015. So, the growth rate for 2015 is 31.18%. Same method was applied for all the year.



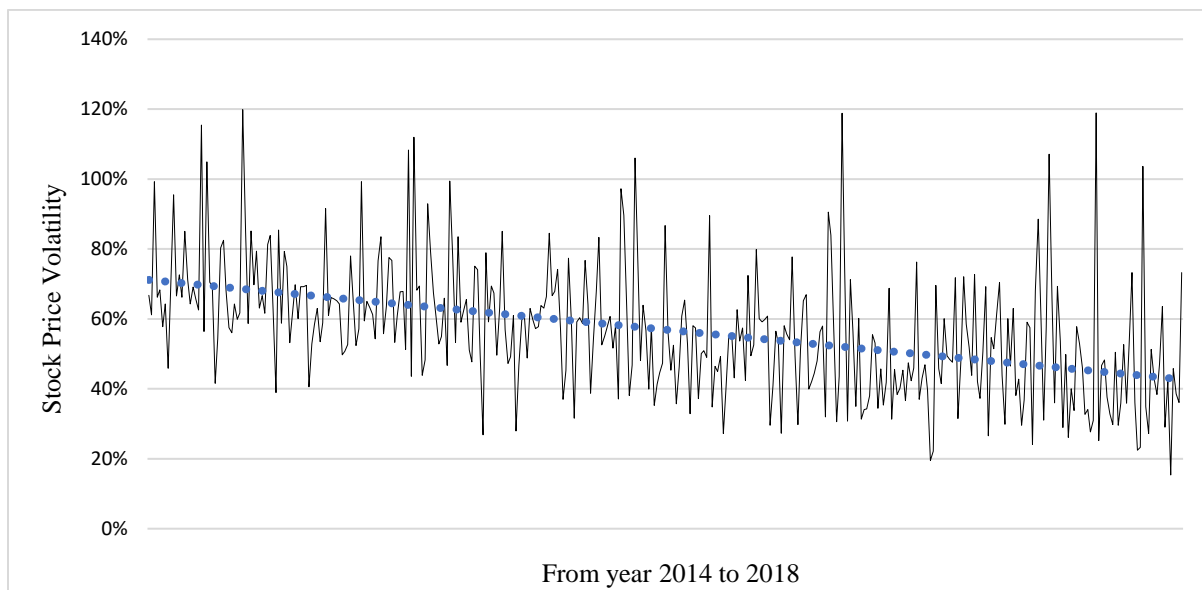
Chapter 4: Analysis of Findings

A total of 75 companies from seven different industries were selected for the purpose of the analysis. The maximum number of samples are from Engineer industry while the minimum samples are from Food and Allied industry. Financial industry is not taken because it is a highly regulated sector, and thus differs in several aspects from any other industry.



Graph 1: Number of Companies per Industry

Price Volatility of the 75 companies from year 2014 to 2018

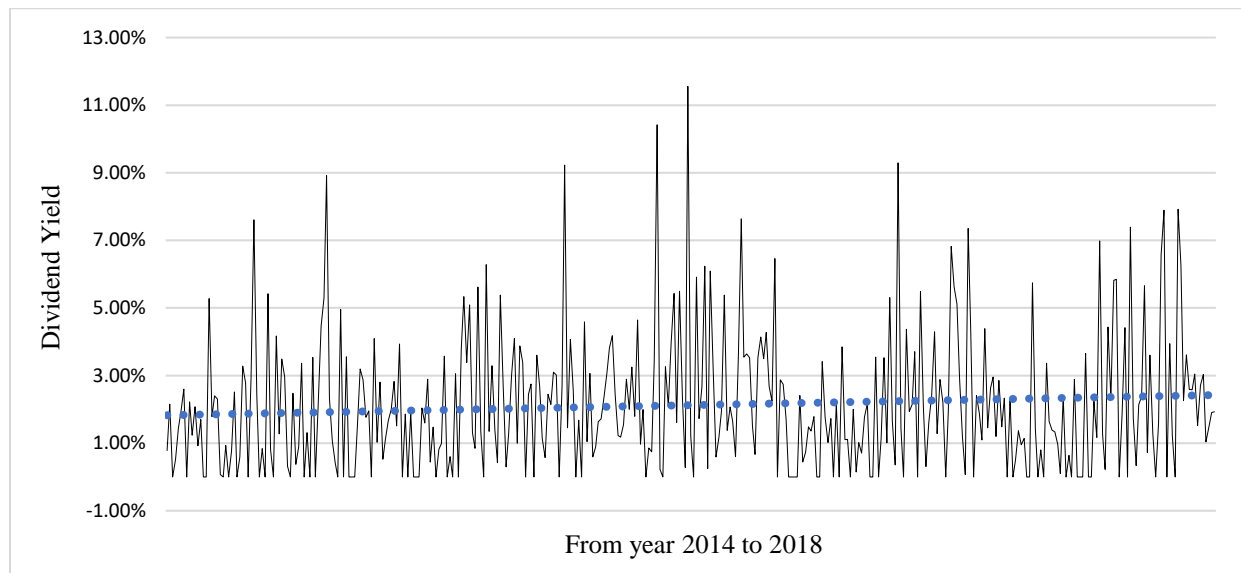


Graph 2: Stock Price Volatility from 2014 to 2018

The Stock Price Volatility of the sample of listed companies from year 2014 to 2018 is demonstrated in the Graph 2. The high volatility of the stock price from the sample firms are

represented here. However, the downward slope of the dotted blue line indicates that over the course of time, volatility in the stock market has decreased overall.

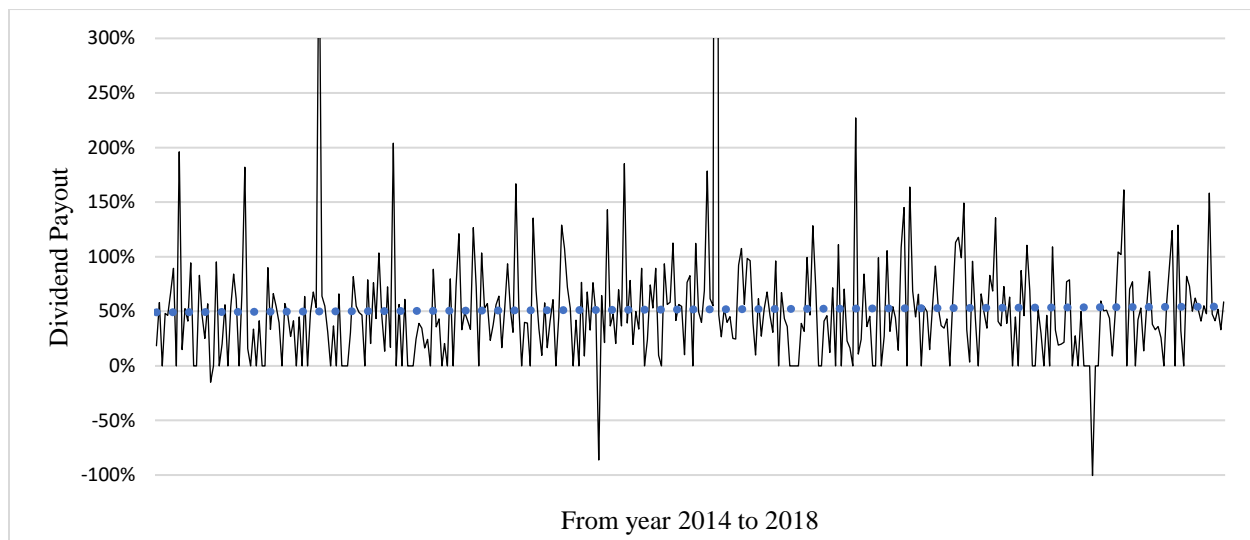
Dividend Yield of the 75 companies from year 2014 to 2018:



Graph 3: Dividend Yield from year 2014 to 2018

Graphs 3 highlights the dividend yield behavior over the 5 years. The trend line is slightly upward sloping which signals that investor, overall, obtained higher dividend returns during the latest years compared to 2014 or 2015. However, dividend yield varies highly from one firm to another. This high volatility could be due to the stock price or inconsistent dividend payment.

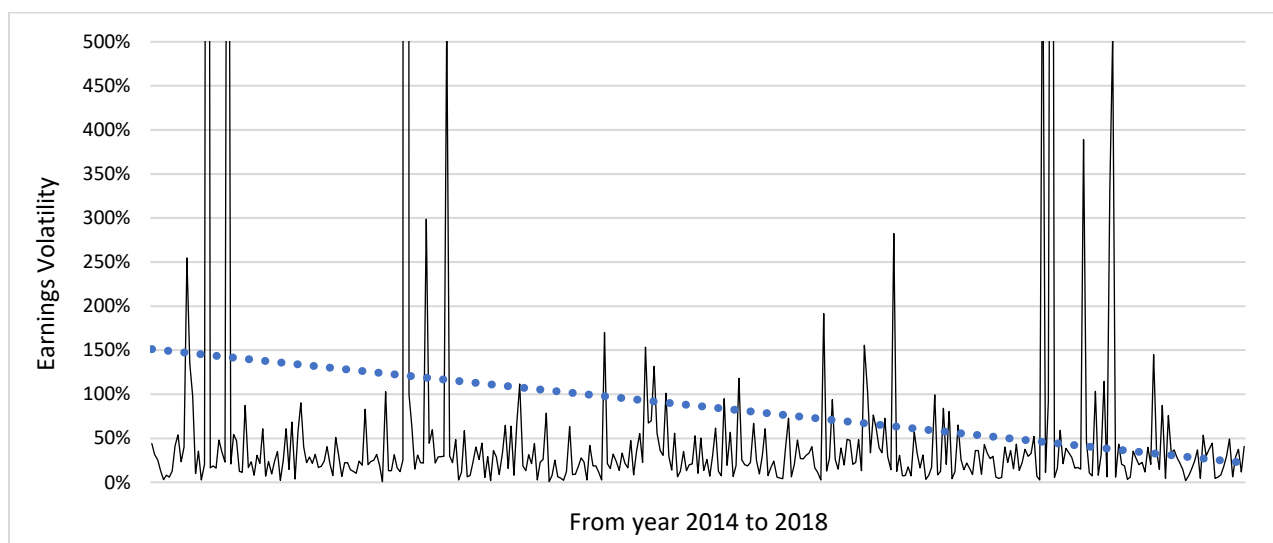
Dividend Pay-out of the 75 companies from year 2014 to 2018:



Graph 4: Dividend Payout from year 2014 to 2018

Dividend Payout, as visualised by Graph 4, by firm listed in DSE shows a consistent behavior. Most of the firms paid dividend consistently over the years, but the dividend growth rate can be termed as zero or close to zero because the trend almost straight line. It can be said that most of the firm did not increase their dividend payment.

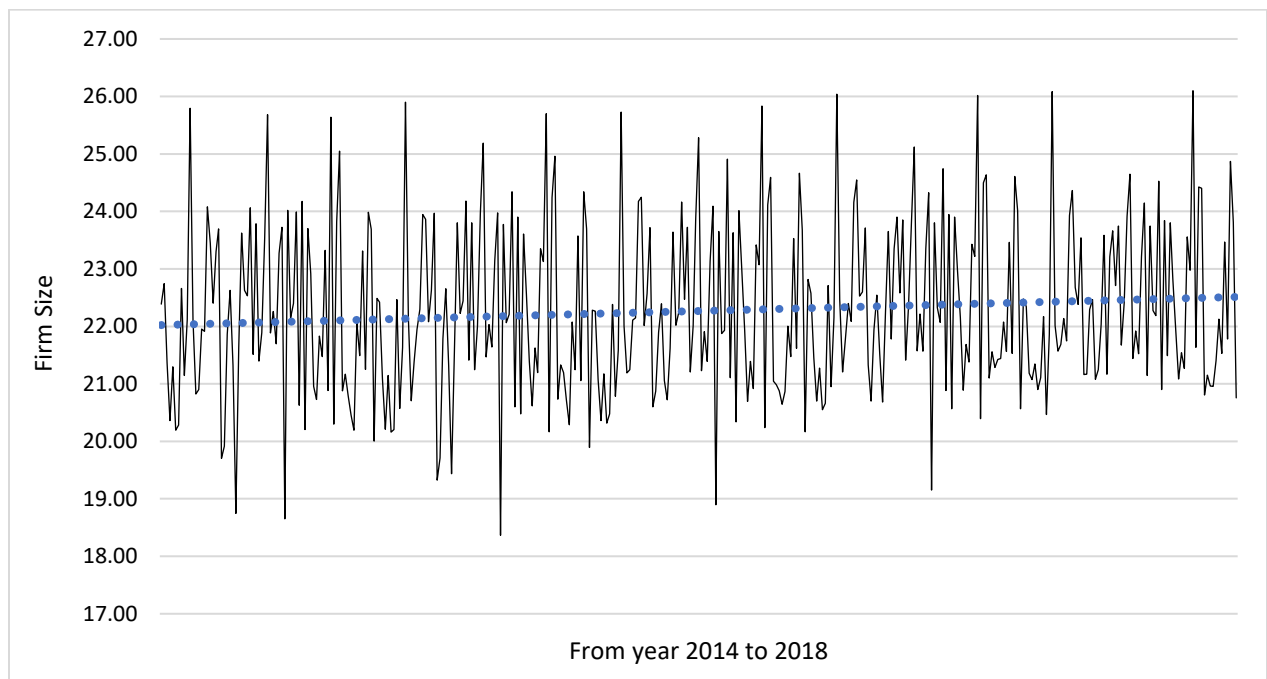
Earnings Volatility of the 75 companies from year 2014 to 2018:



Graph 5: Earnings Volatility from year 2014 to 2018

Most of the firms does not have high earnings volatility other than those few extreme values which could be due to negative earnings in some years. But overall, the firms had consistent earnings, and from year 2014 to 2018 the volatility decreased as depicted in the downward sloping trend line in Graph 5. Most of the firm had been able to stabilize their earnings volatility.

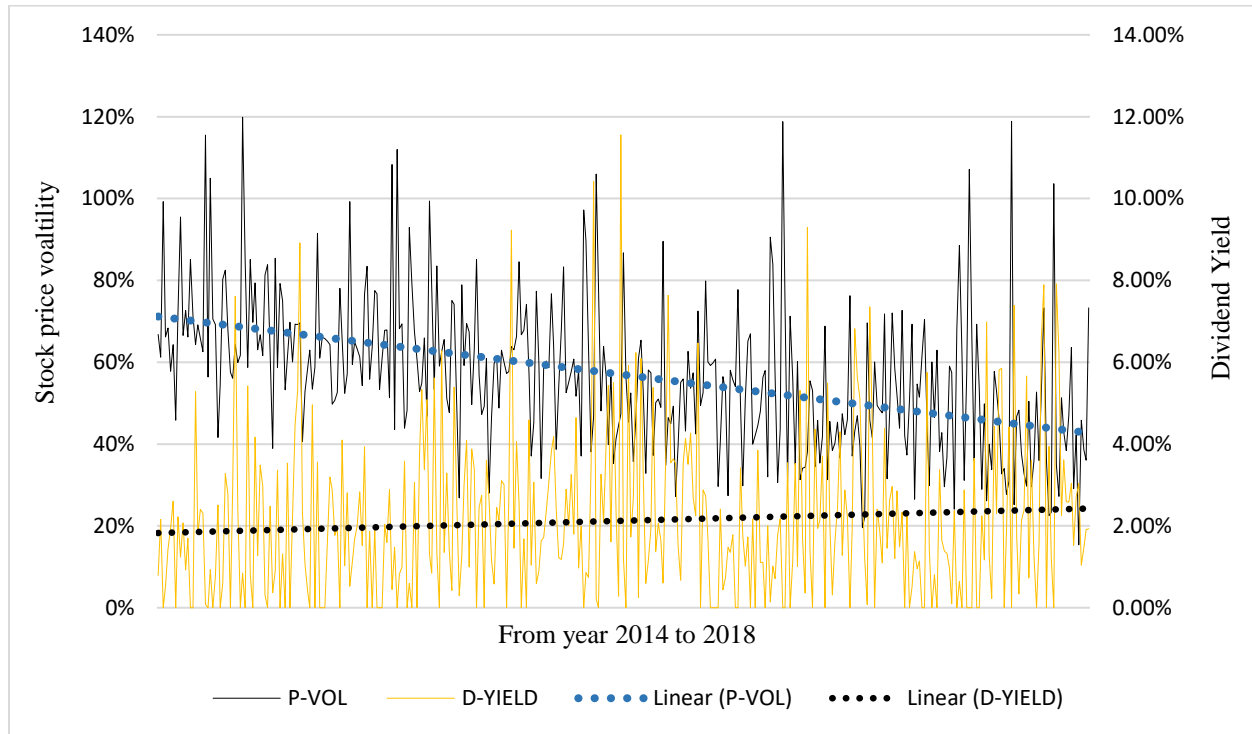
Firm Size of the 75 companies from year 2014 to 2018:



Graph 6: Market Capitalization (or firm size) from year 2014 to 2018

The market capitalization over the 5 years increased as the trend line depicts. This might indicate that most of the firm's share price increased from the year 2014 to 2018. The size of the whole market of DSE also increased.

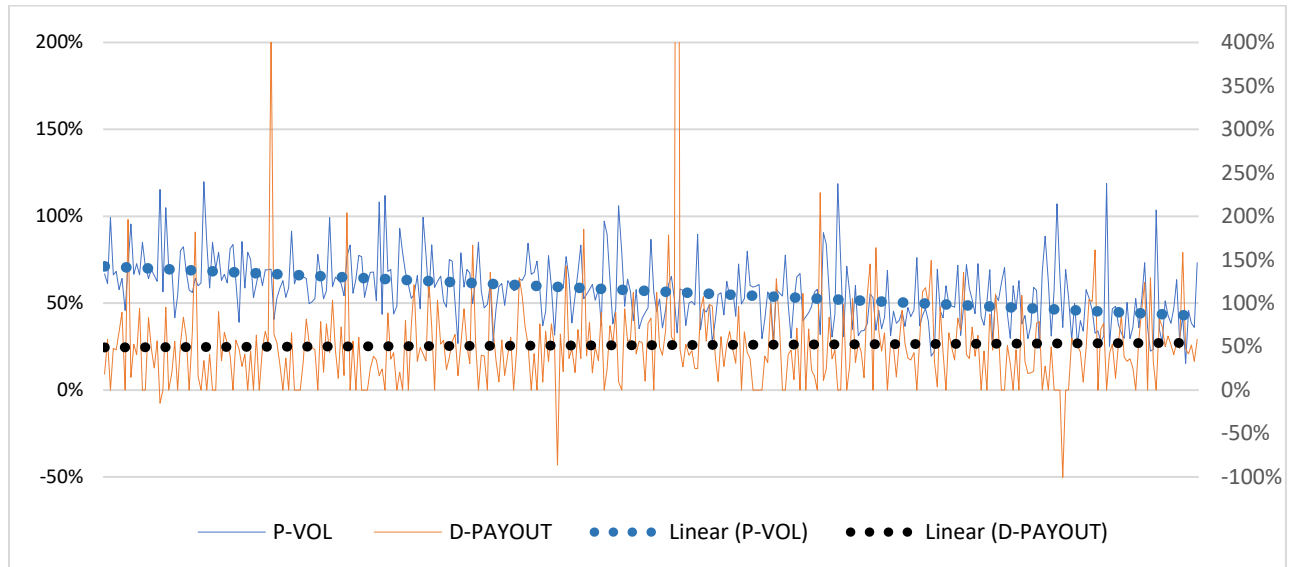
Stock Price Volatility and Dividend Yield Behavior from year 2014 to 2018



Graph 7: Stock Price Volatility and Dividend Yield Behavior from year 2014 to 2018

Graph 7 demonstrates that there is an inverse relationship between stock price volatility and dividend yield. Price volatility decreased over the years while dividend yield slightly increased. Our analysis is mainly concerned with the relationship of these two variables, and the graph suggests a possible negative relationship between the two variables.

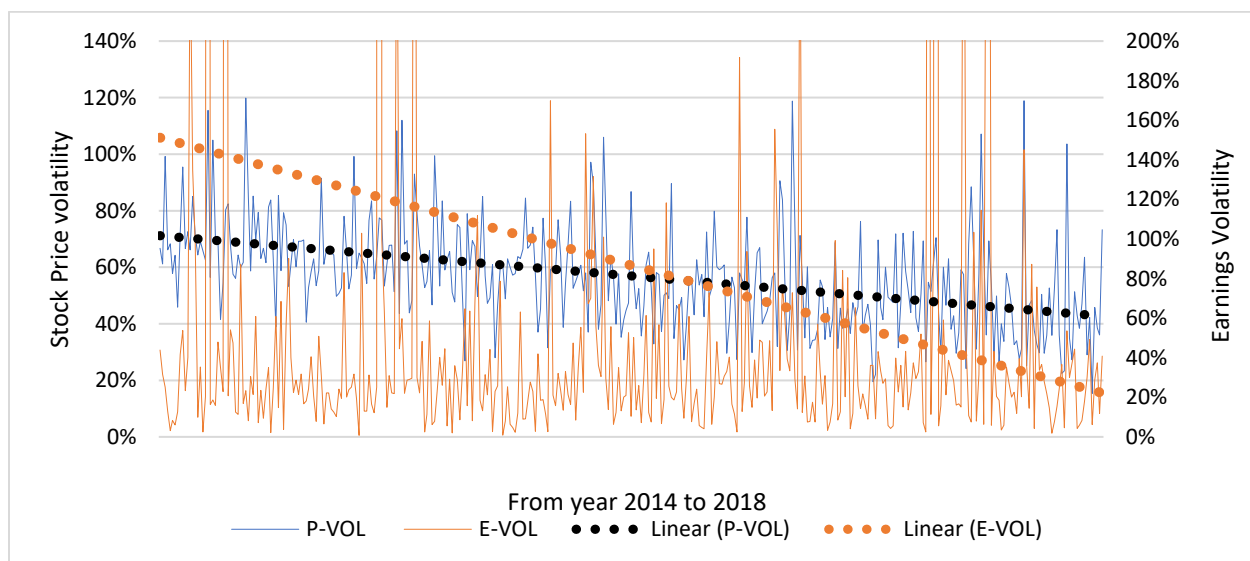
Stock Price Volatility and Dividend Payout behavior from year 2014 to 2018



Graph 8: Stock Price Volatility and Dividend Payout Behavior from year 2014 to 2018

The behavior of price volatility and dividend payout can also be defined as inverse though dividend payout has slight upward trending pattern. It can be expected that these two variables possess certain relationship.

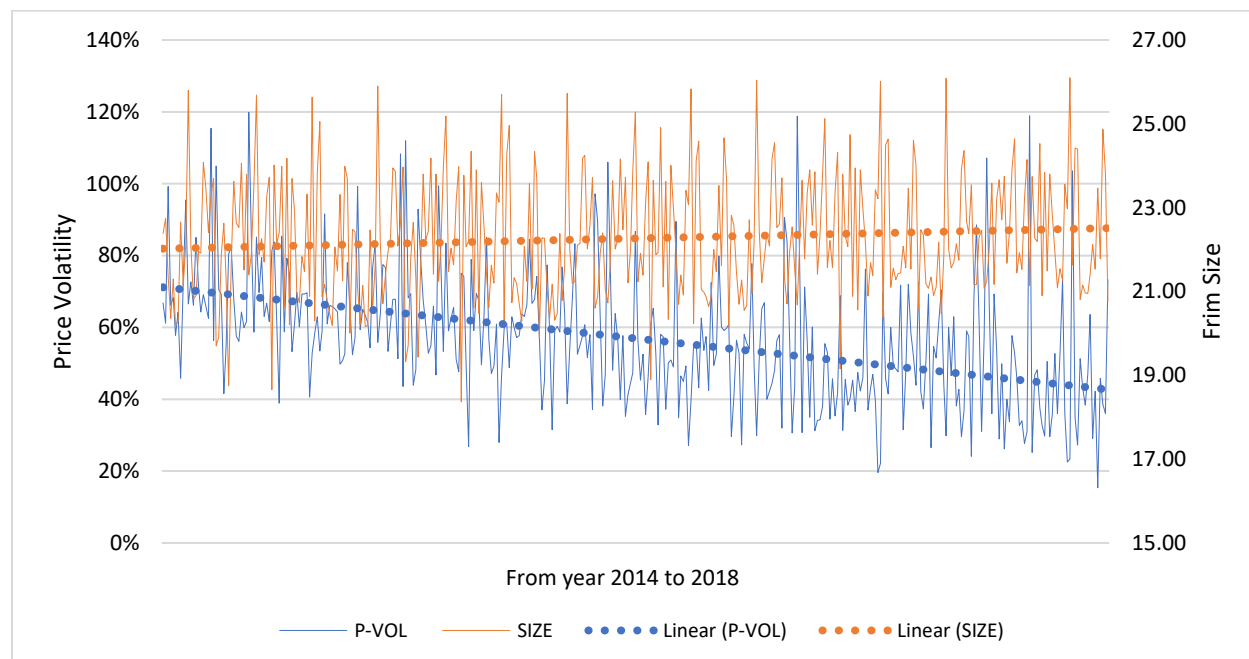
Stock Price Volatility and Earnings Volatility behavior from year 2014 to 2018



Graph 9: Stock Price Volatility and Earnings Volatility Behavior from year 2014 to 2018

The relationship between price volatility and earnings volatility is positive as the trend lines of Graph 9 depicts. Over the years, earnings volatility decreased and so did stock price volatility. This might indicate that decrease in firm's price volatility might be due to decrease in earnings volatility.

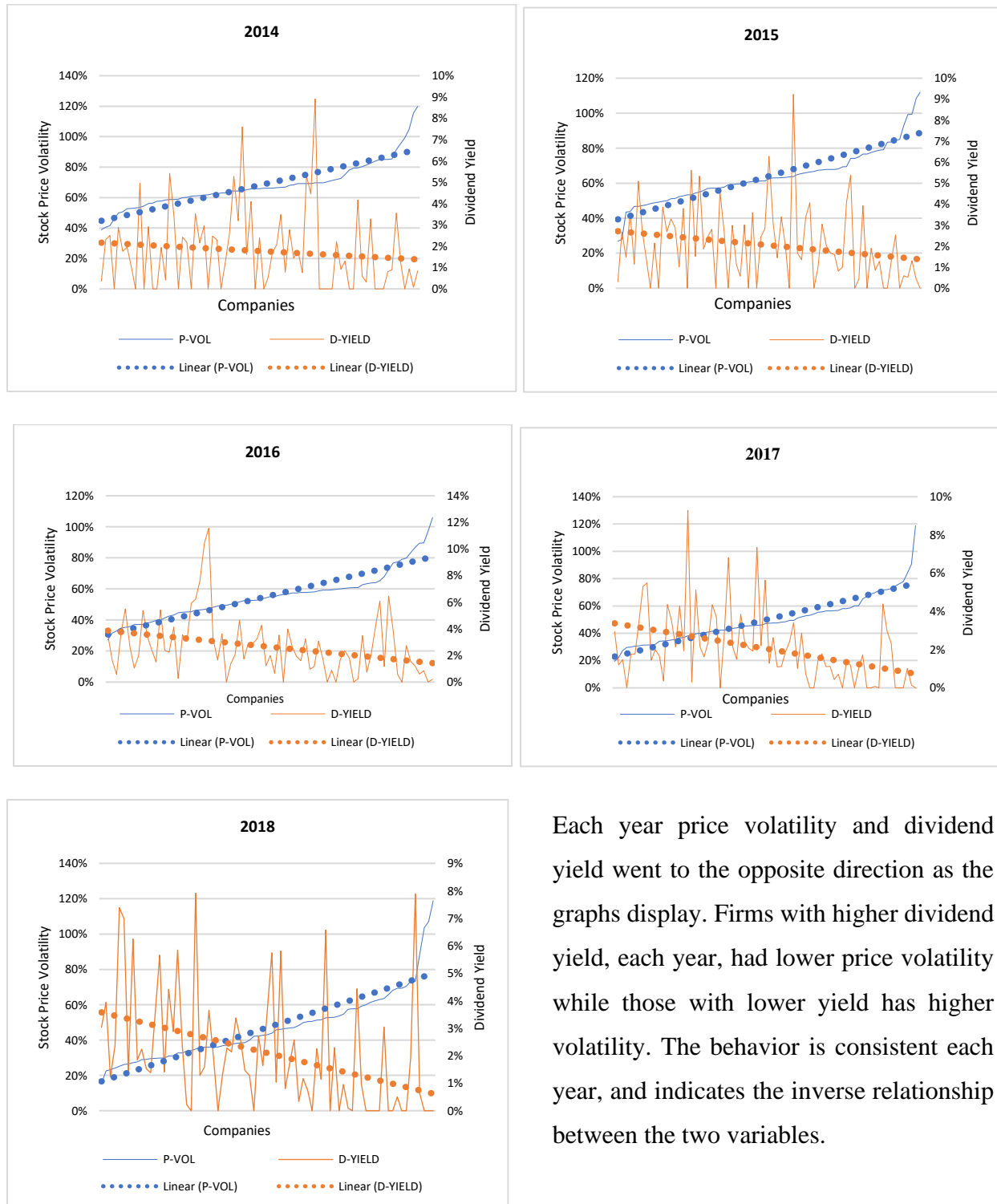
Stock Price Volatility and Firm Size behavior from year 2014 to 2018



Graph 10: Stock Price Volatility and Firm Size Behavior from year 2014 to 2018

Graph 10 demonstrates an inverse trend line between Price Volatility and Firm Size indicating that the decrease in price volatility can be explained by the increase in firm's market capitalization or an increase in firm size decreases the price volatility.

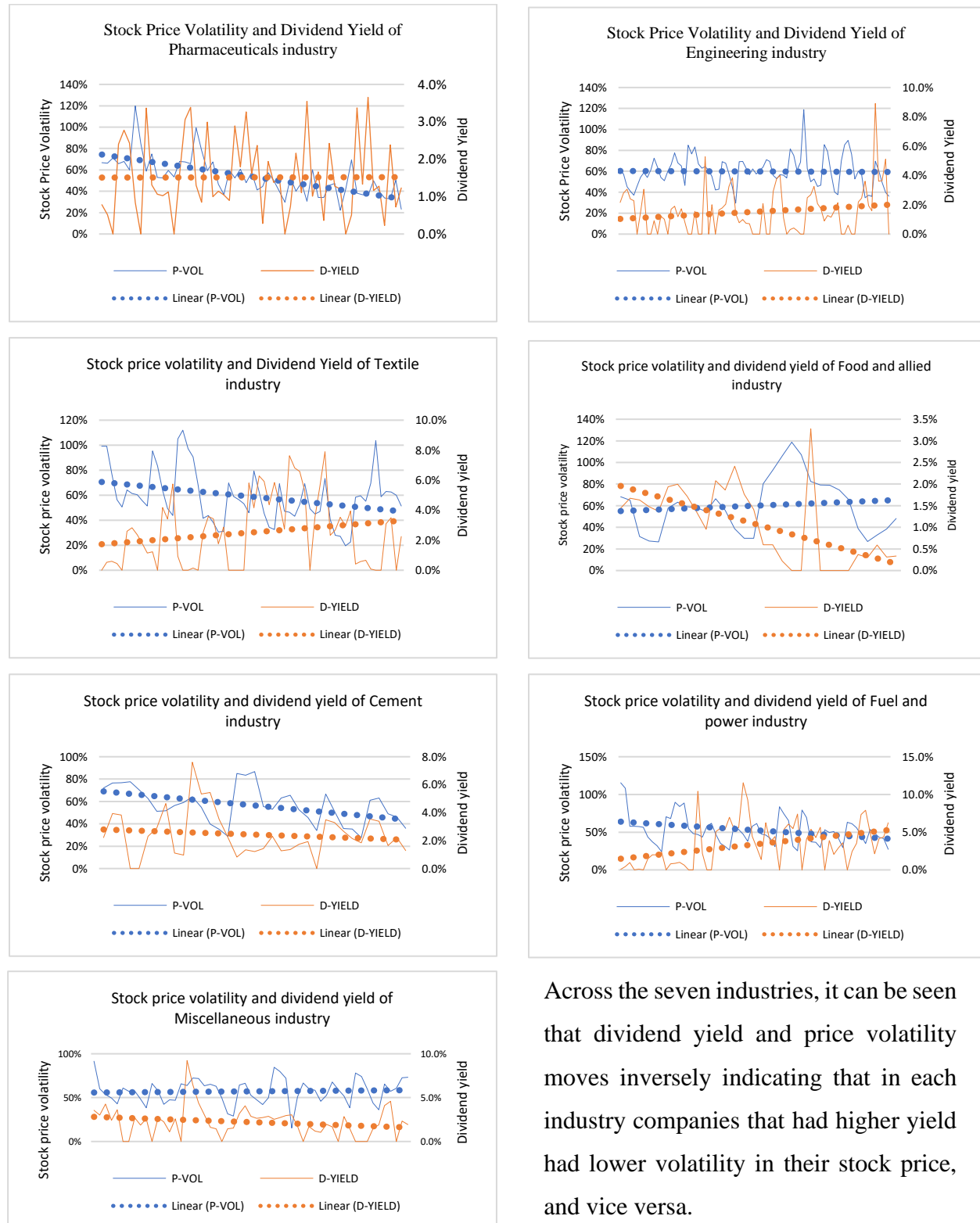
Stock price volatility and dividend yield behavior of each year



Each year price volatility and dividend yield went to the opposite direction as the graphs display. Firms with higher dividend yield, each year, had lower price volatility while those with lower yield has higher volatility. The behavior is consistent each year, and indicates the inverse relationship between the two variables.

Graph 11: Stock Price Volatility and Dividend Yield behavior for the year 2014, 2015, 2016, 2017, and 2019

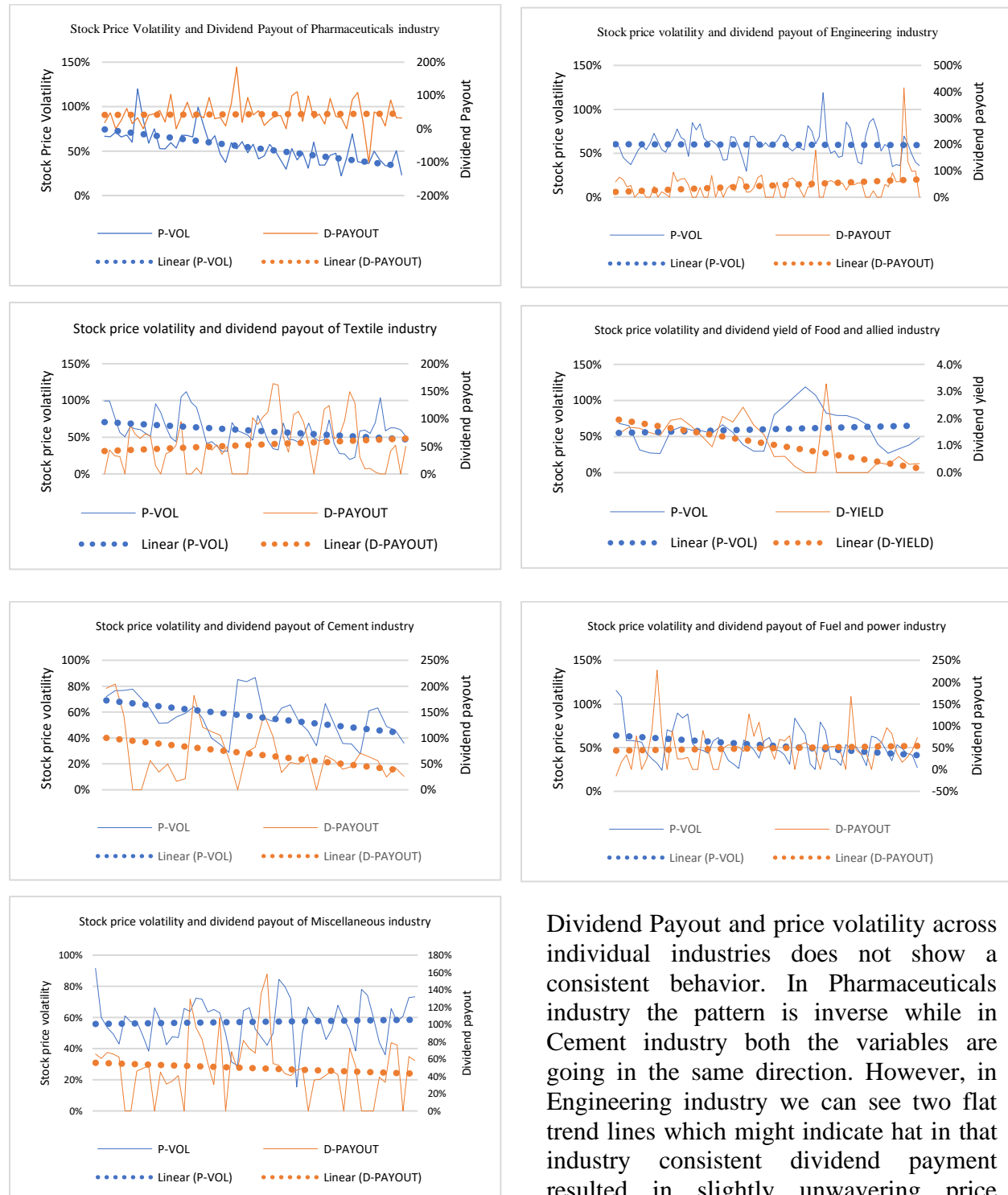
Across industry Stock Price Volatility and Dividend Yield



Across the seven industries, it can be seen that dividend yield and price volatility moves inversely indicating that in each industry companies that had higher yield had lower volatility in their stock price, and vice versa.

Graph 12: Across Industry Stock Price Volatility and Dividend Yield

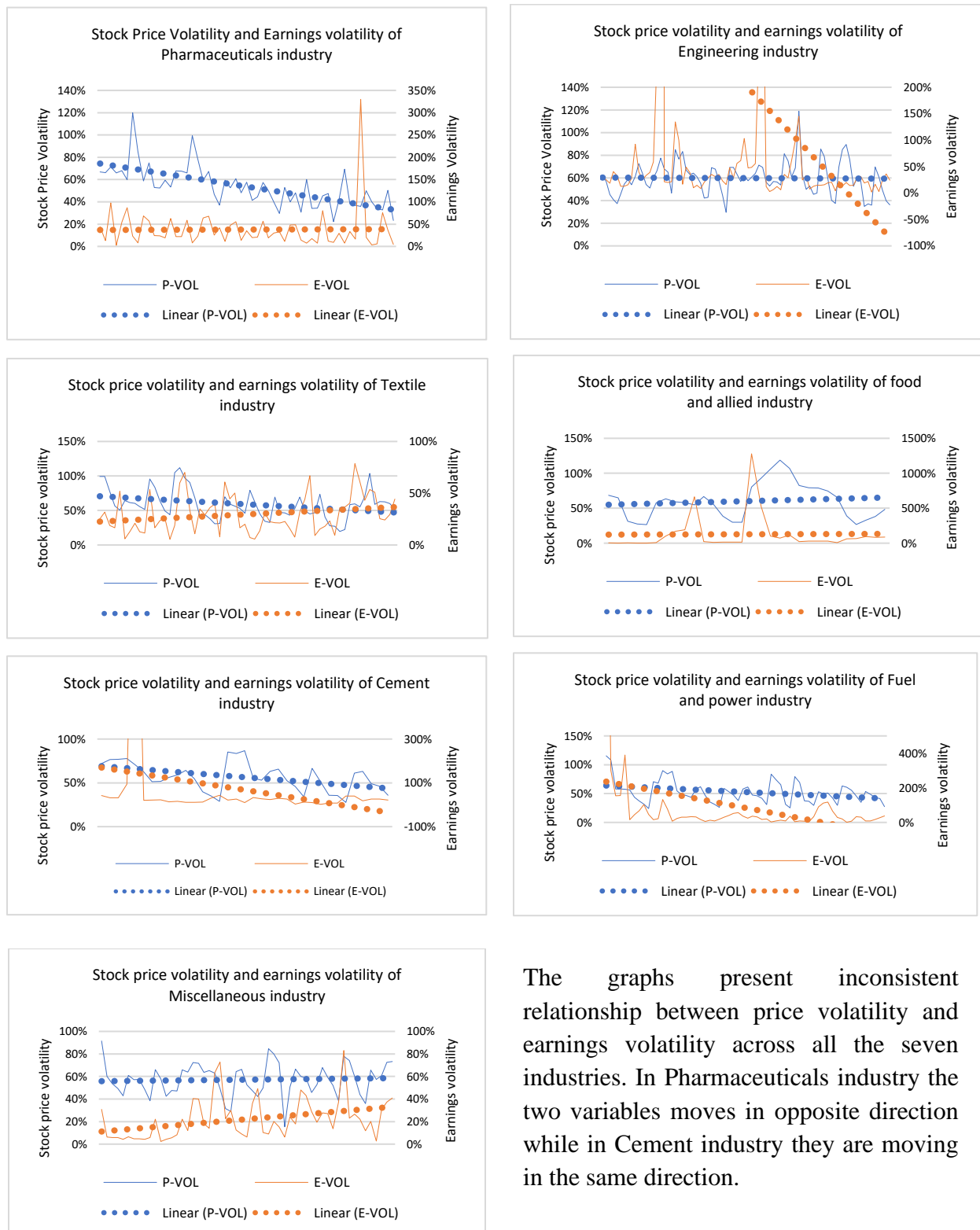
Across industry Stock Price Volatility and Dividend Payout



Dividend Payout and price volatility across individual industries does not show a consistent behavior. In Pharmaceuticals industry the pattern is inverse while in Cement industry both the variables are going in the same direction. However, in Engineering industry we can see two flat trend lines which might indicate that in that industry consistent dividend payment resulted in slightly unwavering price volatility.

Graph 13: Across industry Stock Price Volatility and Dividend Payout

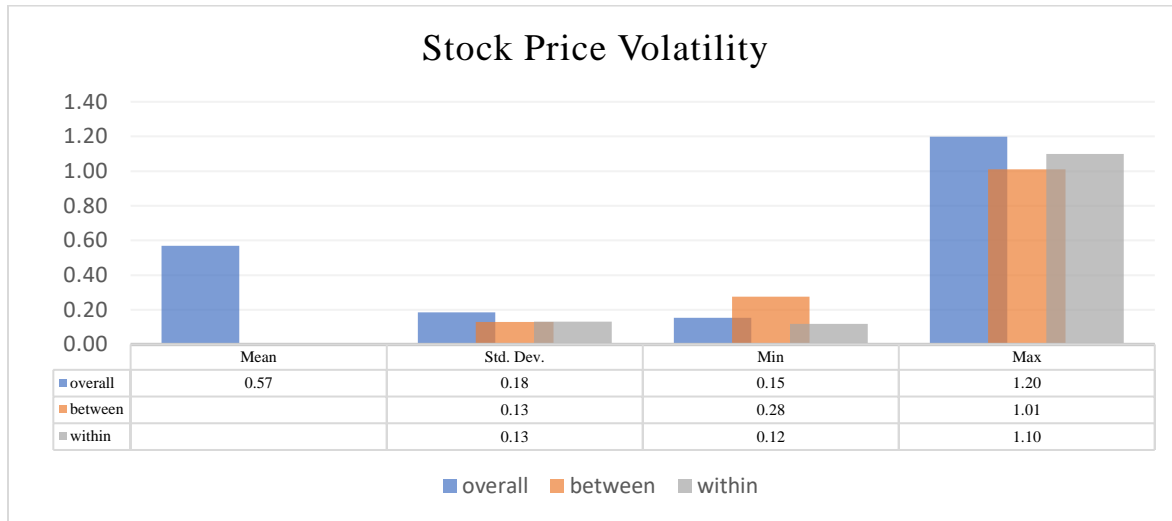
Across industry Stock Price Volatility and Earnings Volatility:



The graphs present inconsistent relationship between price volatility and earnings volatility across all the seven industries. In Pharmaceuticals industry the two variables moves in opposite direction while in Cement industry they are moving in the same direction.

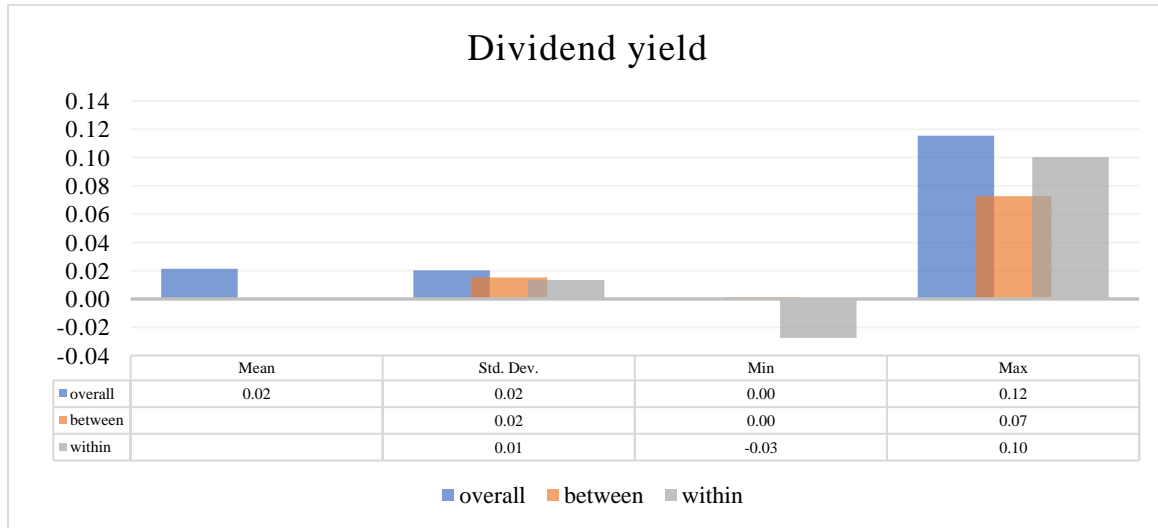
Graph 14: Across industry Stock Price Volatility and Earnings Volatility

Descriptive Statistics



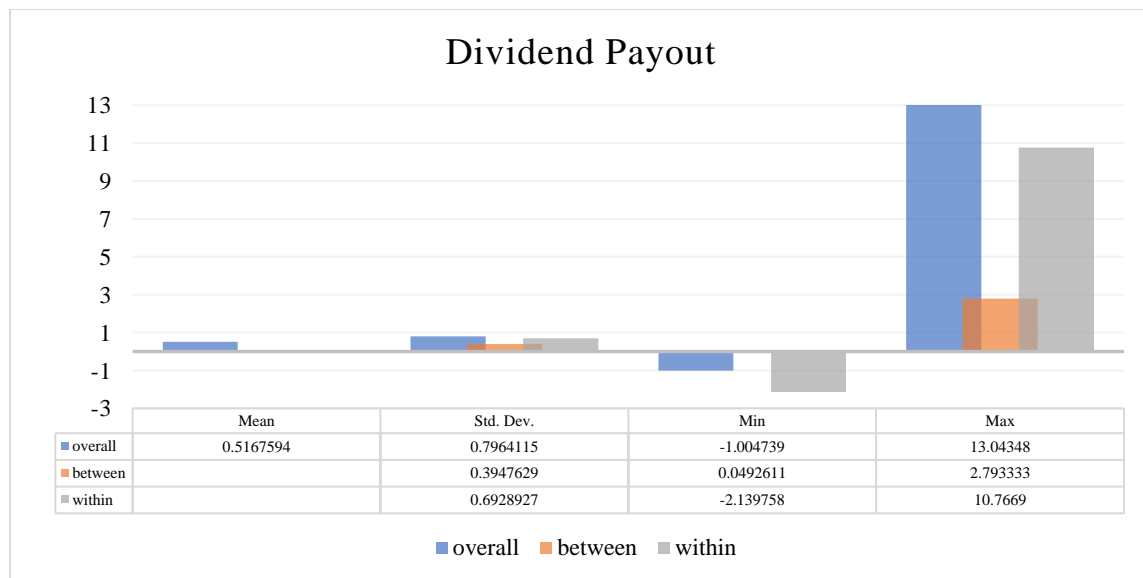
Graph 15: Descriptive statistics of Price Volatility

The average of stock price volatility of the companies listed in DSE is 0.57, and overall standard deviation is 0.18. Minimum price volatility that a firm faced is 0.15 while maximum is 1.20. Between and within the variables the standard deviation of price volatility is 0.13 each.



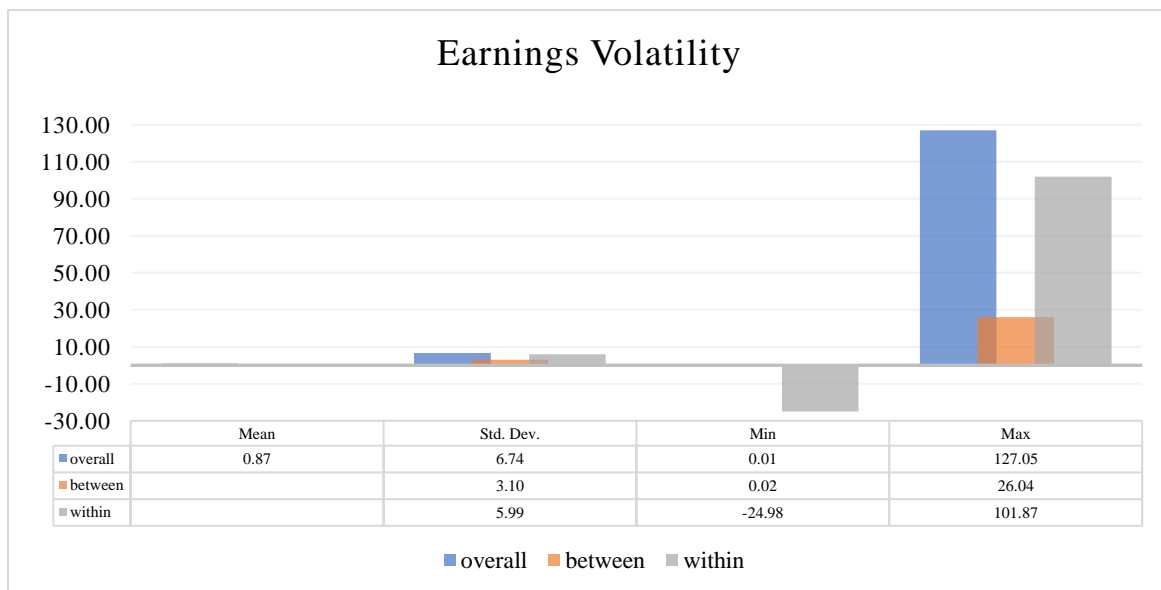
Graph 16: Descriptive statistics of Dividend Yield

Firm overall had 0.02% dividend yield over the 5 years. The variation of the dividend is not much significant. There are firms with zero dividend yield since they paid no dividend in some of the years. The highest dividend yield by any firm is 0.12%.



Graph 17: Descriptive statistics of Dividend Payout

Overall firm paid an average of 0.52% dividend, and it significantly varies across time and companies. Maximum dividend payout by any company is 13%.



Graph 18: Descriptive statistics of Earnings Volatility

Earnings volatility varies across firms and time significantly. The average of earnings volatility is pretty low. However, some firm faced significantly high earnings volatility than most others.



Graph 19: Descriptive statistics of Firm Size

Firm size has a mean of 22.17, and its standard deviation is no significant which means that market capitalization from firm to firm and year to year does not vary significantly. Firm at a certain time point had lowest size of 18.37 overall, and maximum of 26.10.

The analysis is extended further using statistical models in order to determine the association, if any, among the dependent and independent variables. At first, a Test for Random Effects using B-P/LM test is conducted to choose between Random Effects model and Pooled OLS model. The test result shows that $\text{Prob} > \chi^2_{\text{bar}} = 0.000$ which is less than 0.05, thus, we reject the null hypothesis that Pooled OLS model is appropriate for the dataset. Therefore, Random Effects model is a better than OLS model.

Based on this result a Random Effects Panel Regression is run which yields a Wald $\chi^2(12)$ of 50.93. This value of F test is higher than 5% level of significance and therefore, we can say that the model is not a good fit. So, if Random Effects model is used, the model will provide distorted coefficients and p-values.

Next, we choose between Fixed Effects Model and Random Effects Model since the latter is not a good fit model. A Fixed Effects regression is run using all the variables, along with the industry dummy, to check the fitness of the model. The F Statistic yields value of 0.0448 which is significant at 5% level. Therefore, the model, under Fixed Effects, is a good fit. However, industry dummy variables show multicollinearity and thereby, omitted from the model.

In order to choose between Random Effects Model and Fixed Effects Model, Hausman test is run. The test yields $\text{Prob} > \chi^2 = 0.0208$ which is significant at 5% level. The null hypothesis that random effects model is appropriate is thereby rejected, and alternate hypothesis is accepted. So, Fixed Effects the appropriate model for the purpose of our analysis.

Finally, using Fixed Effects Model we run the following models in order to determine the association between the Dependent variable and the Independent Variables.

The control variables, Dividend Yield (DYIELD) and Dividend Payout (DPAYOUT) are highly correlated (0.31). We run separate models using the two explanatory variables along with other control variables. In Table 2, our explanatory variable is Dividend yield, and in Table 3, our explanatory variable is Dividend Payout.

Table 2: Dividend Yield as the Explanatory Variable

	Model 1 (Conventional)	Model 2 (Conventional)	Model 3 (Robust)	Model 4 (Robust)
DYIELD	-1.404** (0.014)	-0.5799* (0.0945)	-1.404** (0.023)	-0.5799 (0.1045)
EVOL	0.0015 (0.215)	0.0012 (0.196)	0.0015** (0.011)	0.0012*** (0.008)
LDEBT	-0.386** (0.038)	-0.1496 (0.292)	-0.386 (0.033)	-0.1496 (0.448)
SIZE	-0.0001 (0.995)	0.1138*** (0.000)	-0.0001 (0.997)	0.1138*** (0.005)
GROWTH	0.0571 (0.217)	0.0355 (0.3130)	0.0571 (0.196)	0.0355 (0.331)
CONSTANT	0.6205 (0.235)	-1.823 (0.000)	0.6205 (0.453)	-1.823 (0.04)
Prob>F	0.0261	0.0000	0.0266	0.0000
Rho	0.4200	0.8380	0.4200	0.8380
Firm Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	NO	YES	NO	YES

Notes: (*) implies significance at 10%, (**) implies significance at 5%, and (***) implies significance at 1%.

Table 2 summaries the Fixed Effects Panel Regression outputs (Coefficients and P-values) using Dividend Yield (DYIELD) as the explanatory variable. Model 1 yields F statistic of 0.0261 indicating that the model is a good fit. The model controls only firm fixed effects and does not consider the time fixed effects. According to this Model, both Dividend Yield (DYIELD) and

Long-term debt (LDEBT) are significant at 5% level (P-value 0.014 and 0.038 respectively). The remaining of the variables are not significant at 5% and 10% level. Only 42% ($R^2 = 0.42$) of variance is due to differences across the panels.

In Model 2, time fixed effects are added while running the panel regression, and this model results in lower Coefficient of Dividend Yield (0.5799) compared to 1.404 of Model 1. The variable is significant at 10% level, and so is firm size (SIZE) at 1% level. This time Long-term debt turned out to be insignificant. In Model 1 the constant term was positive, but in Model 2 it is negative which is in line with Graph 2 where Stock Price Volatility showed a declining trend line; price volatility decreased over the 5 years. Also, in model 2, 83.8% of the variance is due to differences across the panel.

Model 1 and Model 2 used Conventional Standard Error term, but in Model 3 and Model 4, we use Robust Standards Error check if results vary. Model 3 considers no Time Fixed Effects and suggests that Dividend Yield (DYIELD) and Earnings Volatility (EVOL) are the only two significant variables at 5% level. DYIELD inversely related to the dependent variable while EVOL is positively related. However, the inclusion of Year Fixed Effect in Model 4 yields slightly different output. Here, Earnings Volatility and Firm Size are significant at 1% level, while Dividend Yield is insignificant at 10% level. The constant term (1.823) also changes in this model which is also in line with Graph 2. Just like Model 2, the R^2 in Model 4 is significant which means that greater variance is explained due to the differences across the panels.

Table 3: Dividend Payout as the Explanatory Variable

	Model 5 (Conventional)	Model 6 (Conventional)	Model 7 (Robust)	Model 8 (Robust)
DPAYOUT	-0.0127 (0.123)	-0.0065 (0.2145)	-0.0127* (0.086)	-0.0065 (0.114)
EVOL	0.0015 (0.224)	0.00122 (0.203)	0.0015 ** (0.011)	0.00122*** (0.01)
LDEBT	-0.3808 ** (0.042)	-0.146 (0.305)	-0.3808 ** (0.037)	-0.146 (0.464)
SIZE	0.0052 (0.821)	0.1164*** (0.00)	0.0052 (0.883)	0.1164*** (0.004)
GROWTH	0.0647 (0.165)	0.038 (0.281)	0.0647 (0.141)	0.038 (0.289)
CONSTANT	0.4748 (0.363)	-1.892 (0.00)	0.4748 (0.552)	-1.892 (0.03)
Prob>F	0.1583	0.0000	0.0575	0.0000
Rho	0.4577	0.8452	0.4577	0.8452
Firm Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	NO	YES	NO	YES

Notes: (*) implies significance at 10%, (**) implies significance at 5%, and (***) implies significance at 1%.

In Table 3, the four models are run using Dividend Payout (DPAYOUT) as the explanatory variable. Model 5 which uses Conventional standard error and no time fixed effects has F statistic of 0.1583 which is not significant at 5% and 10% level meaning that the model is not a good fit. In Model 7 which uses Robust standard error with no time fixed effects we observe identical outcome; the model is not fit at 5% and 10% level of significance. The model identifies dividend yield, earnings volatility, and long-term debt as the significant variables.

Model 6 and Model 8 use Year fixed effects and result in better fitness of the model (P-value of 0.00). 84.52% variance of the two models are due to differences across the panels. In Model 6,

Firm Size (SIZE) is the only significant independent variable (P-value= 0), but in Model 8, in which Robust Standard Error is used, Earnings volatility (EVOL) is also significant at 1% level and Dividend payout is insignificant at 10% level. Both EVOL and SIZE are positively associated with stock price volatility.

Use of Lag Indicator for DYELD and DPAYOUT

Our regression models are extended further by including Lag Indicator in explanatory variables Dividend Yield (DYIELD)/ Dividend Payout (DPAYOUT). The Lag is used to provide robust estimates of the effects of the independent variable Dividend Yield/ Dividend Payout, and thus it will yield more accurate parameter estimates. Here Table 4 and Table 5 replicates the same 8 model in Table 2 and Table 3 respectively other than the inclusion of Lag.

Table 4: Lagged Dividend Yield as the Explanatory Variable

	Model 1 (Conventional)	Model 2 (Conventional)	Model 3 (Robust)	Model 4 (Robust)
L.DYIELD	-1.26** (0.0185)	-0.457 (0.173)	-1.263** (0.0235)	-0.457 (0.1315)
EVOL	0.0013 (0.262)	0.0009 (0.307)	0.0013*** (0.00)	0.0009*** (0.001)
LDEBT	-0.1904 (0.252)	-0.1445 (0.369)	-0.1904 (0.403)	-0.1445 (0.524)
SIZE	0.014 (0.602)	0.129*** (0.00)	0.014 (0.763)	0.129*** (0.006)
GROWTH	-0.0296 (0.555)	0.0087 (0.825)	-0.0296 (0.503)	0.0087 (0.844)
CONSTANT	0.2701 (0.653)	-2.219 (0.00)	0.2701 (0.795)	-2.219 (0.031)
Prob>F	0.1938	0.0000	0.0000	0.0000
Rho	0.5515	0.8832	0.5515	0.8832
Firm Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	NO	YES	NO	YES

Notes: (*) implies significance at 10%, (**) implies significance at 5%, and (***) implies significance at 1%.

In Table 4, Model 1 here uses conventional standard error, firm fixed effects, but not time fixed effects. The F statistic is significantly high (0.1938), and thereby, it is observable that it is not a

good fit. However, when we included time fixed effects, we get a better fitness of the model and higher Rho. In this model, Firm Size (SIZE) is the only variable that is significant at 1% level and is positively related to stock price volatility.

If we move to the next model “Model 3” where Robust Standard Error rather than Conventional is used with no time fixed effects we can see that Dividend Yield and Earnings Volatility are the two variables that are significant at 1% level each. Dividend yield is inversely related while earnings volatility is positively related. The model is also a good fit (P-value= 0.00), however, we encounter similar problems as in Model 1 where Rho or interclass correlation is lower.

Model 4 includes Robust Standard Error and Time Fixed Effects, and here Earnings Volatility and Firm Size turns out to be significant in explaining the Stock Price Volatility. However, Dividend Yield, the explanatory variables of this analysis, turns out not to be significant. Earnings Volatility and Firm Size both are positively related to stock price volatility; this is similar to the model with no lag indicator in Dividend Yield (DYIELD).

Table 5: Lagged Dividend Payout as the Explanatory Variable

	Model 5 (Conventional)	Model 6 (Conventional)	Model 7 (Robust)	Model 8 (Robust)
L.DPAYOUT	-0.0057 (0.294)	0.0053 (0.261)	-0.0057 (0.2385)	0.0053* (0.0785)
EVOL	0.0013 (0.264)	0.0009 (0.314)	0.0013*** (0.00)	0.0009*** (0.003)
LDEBT	-0.198 (0.338)	-0.1555 (0.336)	-0.198 (0.385)	-0.1555 (0.5)
SIZE	0.008 (0.758)	0.1307*** (0.00)	0.008 (0.859)	0.1307*** (0.005)
GROWTH	-0.027 (0.585)	0.0113 (0.774)	-0.027 (0.53)	0.0113 (0.796)
CONSTANT	0.374 (0.536)	-2.249 (0.00)	0.374 (0.719)	-2.249 (0.028)
Prob>F	0.6591	0.0000	0.0000	0.0000
Rho	0.5543	0.8862	0.5543	0.8862
Firm Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	NO	YES	NO	YES

Notes: (*) implies significance at 10%, (**) implies significance at 5% (***) implies significance at 1%.

In Table 5, Dividend Payout is the explanatory variable just like the one in Table 3. Model 5 is not a good fit; P-value of F statistic is 0.6591. Also, there is no independent variables which are significant at 1%, or 5%, or 10% level. But, when year effect is added in Model 6, the F statistic is significant at 1% level and the interclass correlation (Rho) is better. Here, Dividend Payout is not a significant variable, but Firm Size (SIZE) is significant at 1% level and is positively related to stock price volatility.

In Model 7, we use robust standard error and no time fixed effect. The model is a good fit, but only 43% of the variances in the model is due to differences across the panel. The Model identifies Earnings volatility as the only significant independent variable and it is positively related to stock

price volatility. We include time effects in the Model 8, and it provide better result than Model 7. The model 88.62% higher interclass correlation, and the model overall it significant at 1% level. According to the model, Dividend Payout is significant at 10% level, while earnings volatility and firm size are significant at 1% level each. Dividend Payout is positively related to stock price volatility and so are earnings volatility and firm size.

Table 6: Diagnostics Tests

Testing for heteroskedasticity	Testing for time-fixed effects	Testing for serial correlation
Prob>chi2= 0.000	Prob>F= 0.000	Prob>F= 0.000
Less than 0.05	Less than 0.05	Less than 0.05
Null rejected	Null rejected	Null rejected
So, there is heteroskedasticity.	No time fixed effects. So, dummies for all the years are equal to 0	There is serial correlation in the dataset

In the test for heteroskedasticity, the value of Prob>chi2 suggests that null hypothesis is rejected, and the model accounts for heteroskedasticity. It means that the standard deviations of the predicted variables are non-constant. Due to the presence of heteroskedasticity, it is appropriate to use ROBUST Standard Error in Fixed effects model so that we can adjust the standard error among the 75 clusters of companies.

The time fixed effects test provides the value of F test less than 0.05 which means that the null hypothesis that dummies for all the years are equal to 0 is not rejected. So, we need to include time fixed effects when running the FE model.

From the two diagnostic tests, we find that the models which use Robust Standard Error and Year Fixed Effects are most appropriate when concluding our findings. So, Model 4 and Model 8 from Table 2 and Table 3 respectively, and Model 4 and Model 8 from Table 4 and Table 5 are the relevant model.

In Model 4 of Table 2, the coefficient of Dividend Yield is -0.5799; that means 1 unit increase (decrease) in Dividend Yield should result 0.5799 unit decrease (increase) in Stock Price Volatility, but it is insignificant at 10% level. On the other hand, a positive association is observed between Earnings Volatility and Stock Price Volatility; 1 unit increase in earnings volatility should contribute to 0.0012 unit increase in price volatility. This variable is significant at 1% level along which another variable firm size (SIZE) which also possesses positive association with Stock Price Volatility. 1 unit increase in Firm Size should contribute to 0.1138 unit increase in price volatility.

Model 8 of Table 3 has dividend payout as the explanatory variable, and in this model, we also find that Earnings Volatility and Firm Size are positively associated with Stock Price volatility, both have coefficient of 0.0012 and 0.1164 respectively. Dividend payout seems to have negative relationship with the dependent variable with coefficient of -0.0065, but it is not statistically significant at 10% level. Only Earnings Volatility and Firm Size are the parameters that have stronger association with Price Volatility. This finding is identical to the previous model.

When Lag was used in Model 4 of Table 4, we don't observe much changes in the coefficients and P-values. Earnings Volatility and Firm Size are still the two most significant variables at 1% level, and Dividend Yield is insignificant at 10% level having negative coefficient of 0.457. But in Model 8 of Table 5, Dividend Payout turned out to be positively associated with Price Volatility at 10% level of significance; coefficient is 0.0053. This is in contrast with the output of the model when Lag was not used. However, Earnings Volatility and Firm Size are still significant variables at 1% level, both having positive coefficient.

Thus, it can be concluded that our models hold Earnings Volatility and Firm Size statistically significant in explaining Stock Price Volatility and both contributed to the increase in stock price volatility.



Chapter 5: Conclusion

The study investigated the if dividend yield has any impact in defining the stock price volatility. The price volatility for the selected 75 companies decreased over the years, from 2014 to 2018 (see in Graph 2, and the negative constant term of our FE regression model). We examined what factors contributed to the observed decrease in price volatility. We found that dividend yield has negative relationship with stock price volatility, but the variable is not significant enough to explain the dependent variable. The result is in contradiction with empirical findings such as Baskin (1989) where dividend yield had strong negative association with stock price volatility. Similar is the output of Dividend Payout; it also does not have any significant association with price volatility.

Amongst the control variables, earnings volatility and firm size are the contributory variables that better explain the stock price volatility. Earnings volatility is positively related to stock price volatility, which means that the more volatile a firm's earning the more volatile is its share price. This result is in line with the empirical findings such as Allen & Rachim (1996). However, surprisingly size has positive relationship with price volatility while most empirical studies found the association to be negative. Thereby, we can conclude that Dividend yield does not have a significant association with share price volatility for the firm listed in Dhaka Stock Exchange (DSE).

PART 2:



Internship Experience at IDLC Finance Limited

I participated in the three-month IDLC Next Generation Program for the internship as a requirement of my BBA program. My internship tenure was January 6, 2020 to April 6, 2020. I worked in the Deposit operation department of IDLC Finance Limited under supervision of Mohammad Shaiful Islam, Assistant Manager. I worked for two projects of Deposit Operations Department including *“Index and quality assurance of deposit documents” and “Archiving deposit documents at 3rd party location”*. During the last two weeks I was directed to work directly under the regular employees of Deposit operations department in order to observe and learn how the whole deposit operations function is run.

I am sharing my experience of working in these projects under IDLC Finance Limited’s Deposit operations department.

About IDLC Finance Limited

“Financing is much more than just a monetary transaction. Every transaction has a purpose, and our purpose is to finance happiness.”

IDLC started as a lease finance company in 1985 with a single product and 5 staff members. Over the 33-year timeline it has emerged as the largest Non-Bank financial institution in Bangladesh. IDLC holds a very reputed and strong position with its diversified product line Corporate, SME, Retail and Capital Market segments. IDLC now operates in 20 cities with its 40 branches and booths supported by 1400 employees. IDLC distinguishes itself more than just a financial institution as it intends to help people achieve their dreams- the dream of buying a car, dream of starting a new business, dream of going to vacations with family and friends, dream of buying one’s own house. It has three subsidiaries- IDLC Asset Management Limited, IDLC Securities Limited, and IDLC Investment Limited.

Mission, Vision, and Values of IDLC Finance Limited

IDLC is the top non-bank financial institution of Bangladesh, and its mission, vision, and core values played the key role in building the market position. IDLC addresses its core values, mission and vision through its products and high-quality service. The following are the mission, vision, and values that drive the success of IDLC finance limited.

Vision: We will be the best financial brand in the country.

Mission: We will focus on quality growth, superior customer experience and sustainable business practices.

Core Values: Integrity, Customer Focus, Trust and Respect, Equal Opportunity, Eco-friendly, Passion, and Simplicity

Range of products and services offered by IDLC Finance Limited

The following range of products and services are offered by IDLC finance and its subsidiaries:

SME: The SME segment is intended to support the small and medium enterprises of Bangladesh with appropriate financing opportunities. IDLC also provides guidance to these business for ensuring the successful operations of them.



Figure 1: SME Products of IDLC

Consumer: IDLC serves the individuals by providing them car loan, home loan, personal loan, loan against deposit, and offering term deposits.

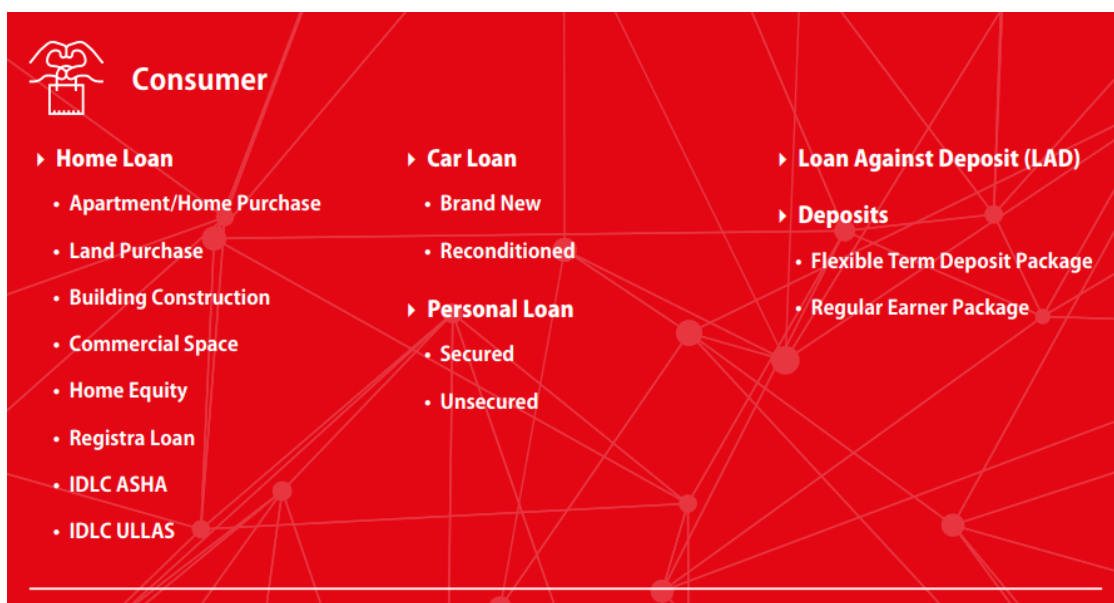


Figure 2: Consumer Products of IDLC

Corporate: It has several products for the corporate customers including lease financing, term loan, project financing, debt syndication, working capital syndication etc.



Figure 3: Corporate Products of IDLC

Capital market operations: It operates in the capital market through its three subsidiaries. IDLCAML offer mutual fund, alternative investment funds, and corporate advisory. IDLCSL primarily serves as a broker, underwriter in the stock market.



Figure 4: CMO of IDLC

Work Experiences at IDLC Finance Limited

I went through several phases during my three-month internship. At the initial stage, I was trained in order to work on the projects mentioned at the beginning. After two weeks of training session, I was given the tasks of the first project “Index and quality assurance of deposit documents”; the project took one and half month. In the next project, I had to deal with several deposit document management and tracing them using the bar code provided by the 3rd party, InfoFort, which stores all the documents of IDLC; the project took another three weeks. In the last two weeks, I was assigned to work directly with a regular one of the employees of deposit operations to observe how the TD (Term Deposit) account opening function works, how documents are audited during account opening, how encashment is done for the TD accounts etc.

The details of the projects are described below:

TIMELINE	TASK ACCOMPLISHMENTS
WEEK 1 TO 2	<p><u>Understanding account opening, LAD (Loan against deposit), and Encashment documents related to Term Deposit:</u></p> <p>At first, I was introduced with several documents required for opening fixed deposit account with IDLC, taking Loan against fixed deposit accounts, and encashment of those deposit accounts. The deposit operations department receive these documents from their customers through Relationship Managers (RM). The relationship managers send request to Deposit Operations Department to open fixed deposit accounts on behalf of the customers. A Credit Analyst checks the required documents and verifies those documents in order to open TD (Term Deposit) account for the customer.</p> <p>There are two basic types of customers including- Individual customer and corporate customer. The required documents to open a Term Deposit account requires various documents and it varies from customer to customer. Corporate customers are sub-divided into several other categories based on their types of ownership; they include- Sole trader business, Partnership business, Cooperative society, Government organization, Non-profit business (School, college, university), Employee Provident/Gratuity Fund, Public Limited company, and Private Limited company. I was introduced with all the documents based on these different customer segments.</p> <p>I was also introduced with three software which are used to store the TD customer data and documents related to each account; the software is- Online Service Portal (OSP), Online Credit Appraisal Service (OCAS), and Oracle Business Intelligence (OBI). I learnt how to find the customer information and related documents from these systems using unique CIF number.</p>
	<p>The first project involved auditing the pending deposit documents and quality control of those documents. I was given the details of the pending documents along with the required details for the work.</p> <p>Each customer has a unique identification number which is called CIF number and I used it for searching the customer documents in OSP, OCAS, and OBI. This three</p>

**WEEK 3 TO 8
(PROJECT 1)**

software contain scanned version customer documents, and I had to check every document attached to these systems. The main task involved finding the pending documents, and if document is found I had to mark it account as Document found, if document is not found I had to mark it as Document not found in a excel sheet with the required details.

The next step of the audit involved checking the physical files and it required me to scrutinize physical documents to find out the pending documents.

I checked the pending documents of 560 customers. The main purpose of this quality control project was to make sure that customers provide the necessary documents which they were required to submit during account opening. At the time of account opening customers don't provide all the legal documents, and these documents are marked pending by the Credit Analysts. The Credit Analyst ask the RM to ensure that customers provide these pending documents and if the document is collected then the RM send those to Deposit operations department. These documents are important for IDLC for future refences. In case any legal issue arises in future, IDLC will be able to make its valid ground using those legal documents. That is why IDLC has to make sure that pending documents are collected.

**WEEK 9 TO
11
(PROJECT 2)**

The second project is titled "Archiving deposit documents at 3rd party location". It involved two range of activities: first one is to identify the name of the documents and keeping their record in a excel file, the second one is to identify the Bar Code of those documents. All this information is then gathered in a excel file for documenting and locating them.

A bar code is a unique location number where each customer's documents are placed. This unique number helps to trace each customer at the third-party location. I had to write the bar codes at the front of the documents so that the 3rd party can use this barcode to insert the files in the correct file location.

There was a total of 8,000 documents which were archived by a team of four interns including me. This project took another two weeks, and I leant how to manage documents with a third party and knew about several deposit documents.

WEEK 12
TO 13

In the last two weeks I was assigned with a regular employee as a simulation of One-the-job training to observe and learn how the deposit operations is conducted. I was able to learn how the whole process works at IDLC, and how to manage work pressure while meeting daily deadlines to make sure that customers receive their services in time.

References

- Adelegan, O. J (2000). An empirical analysis of the relationship between cash flows and dividend changes. A paper presented at the 23rd Annual Congress of the European Accounting Association, Munich, Germany p.5.
- Allen, D. E., & Rachim, V. S. (1996). Dividend Policy and Stock Price Volatility: Australian Evidence. *Applied Financial Economics* , 6 (2), 175-188.
- Alli, K. L., Khan, A. Q. & Ramirez, G. G. (1993). Determinants of corporate dividend policy: a factorial analysis. *The Financial Review*, 28, 523-547.
- Baskin, J. (1989), “Dividend policy and the volatility of common stock”, *Journal of Portfolio Management*, Vol. 15, pp. 19-25.
- Fama, E. F., (1965), The behavior of stock market prices, *Journal of Business*, 38, 34-105.
- Friend, I. and Puckett, M. (1964). Dividends and Stock Prices. *The American Economic Review*, 54 (5), 656-682.
- Guo, H. (2002), “Stock market returns, volatility and future output”, available at: www.research.stlouisfed.org/publications/review/02/09/75-86Guo.pdf
- Hashemijoo, M., Ardekani, A. and Younesi, N. (2012). The Impact of Dividend Policy on Share Price Volatility in the Malaysian Stock Market. *Journal of Business Studies Quarterly*, 4(1), pp.111-129.
- Higgins, 1995, „Dividend changes and future profitability“, *The Journal of Finance*, vol. 56, no. 6, pp. 2111-33.
- Hussainey, K., Mgbame, C. O., & Chijoke-Mgbame, A. M. (2011). Dividend policy and share price volatility: UK evidence. *Journal of Risk Finance*, The, 12(1), 57-68.
- ILABOYA, O. and AGGREH, M. (2013). Dividend Policy and Share Price Volatility. 2(2), pp.109-113.
- Mandelbrot B. B. (1963). The variation of certain speculative prices, *Journal of Business*, 36 (4), 392–417.

Masum, A. (2014). Dividend Policy and Its Impact on Stock Price – A Study on Commercial Banks Listed in Dhaka Stock Exchange. *Global Disclosure of Economics and Business*, 3(1).

Masum, A. (2014). Dividend Policy and Its Impact on Stock Price – A Study on Commercial Banks Listed in Dhaka Stock Exchange. *Global Disclosure of Economics and Business*, 3(1).

Miller, M. and Scholes, M., 1978, 'Dividends and taxes', *Journal of Financial Economics*, Vol. 6 No. 4, 333-64.

Nazir, M., Abdullah and Nawaz, M. (2011). How Dividend Policy Affects Volatility of Stock Prices of Financial Sector Firms of Pakistan. *American Journal of Scientific Research*, (61), pp.132-139.

Rajni, M. & Mahendra, R. (2007). Measuring Stock Market Volatility in an Emerging Economy. *International Research Journal of Finance & Economics*, 8,126-133

Appendix

Appendix 1: Price Adjustment Example

TRADEDATE	COMID	LOWPRC	HIPRC	Adjusted Low price	Adjusted High Price
21-01-2014	17459	40	48	32.00	38.40
22-01-2014	17459	41.5	45.3	33.20	36.24
23-01-2014	17459	39.6	42.9	31.68	34.32
26-01-2014	17459	41.1	44	32.88	35.20
27-01-2014	17459	40.1	41.9	32.08	33.52
28-01-2014	17459	39.1	40.8	31.28	32.64
29-01-2014	17459	39	40.9	31.20	32.72
30-01-2014	17459	39.8	40.7	31.84	32.56
02-02-2014	17459	39.1	41.9	31.28	33.52
03-02-2014	17459	39.6	41.5	31.68	33.20
04-02-2014	17459	39.5	41.2	31.60	32.96
05-02-2014	17459	39.5	40.6	31.60	32.48
06-02-2014	17459	38.1	40	30.48	32.00
09-02-2014	17459	37.1	38.8	29.68	31.04
10-02-2014	17459	36.9	38.2	29.52	30.56
11-02-2014	17459	36.9	37.5	29.52	30.00
12-02-2014	17459	37.2	39	29.76	31.20
13-02-2014	17459	37.1	38.6	29.68	30.88
16-02-2014	17459	36.9	37.9	29.52	30.32
17-02-2014	17459	36.5	37.3	29.20	29.84
18-02-2014	17459	36.6	37.8	29.28	30.24
19-02-2014	17459	36.7	37.5	29.36	30.00
20-02-2014	17459	37.2	37.7	29.76	30.16
23-02-2014	17459	36.5	37.4	29.20	29.92
24-02-2014	17459	36.4	37.4	29.12	29.92
25-02-2014	17459	35.8	36.9	28.64	29.52
26-02-2014	17459	35.1	36.1	28.08	28.88
27-02-2014	17459	35.2	36.2	28.16	28.96
02-03-2014	17459	33.6	35.4	26.88	28.32
03-03-2014	17459	33.1	34.4	26.48	27.52
04-03-2014	17459	33.2	34.9	26.56	27.92
05-03-2014	17459	34.7	36.8	27.76	29.44
06-03-2014	17459	35.2	36	28.16	28.80
09-03-2014	17459	34.3	35.5	27.44	28.40
10-03-2014	17459	34.3	35.3	27.44	28.24
11-03-2014	17459	34	34.8	27.20	27.84
12-03-2014	17459	33.9	34.6	27.12	27.68

13-03-2014	17459	33.7	34	26.96	27.20
16-03-2014	17459	33.5	34.1	26.80	27.28
18-03-2014	17459	32.3	33.7	25.84	26.96
19-03-2014	17459	30.9	32.5	24.72	26.00
20-03-2014	17459	31.1	32.1	24.88	25.68
23-03-2014	17459	31.4	34.1	25.12	27.28
24-03-2014	17459	32.4	33.1	25.92	26.48
25-03-2014	17459	32.1	34	25.68	27.20
27-03-2014	17459	32.3	33.6	25.84	26.88
30-03-2014	17459	32.4	33	25.92	26.40
31-03-2014	17459	32.3	33.4	25.84	26.72
01-04-2014	17459	32.6	33.4	26.08	26.72
02-04-2014	17459	32.8	33.6	26.24	26.88
03-04-2014	17459	33.6	34.8	26.88	27.84
06-04-2014	17459	33.4	34.7	26.72	27.76
07-04-2014	17459	32.6	33.9	26.08	27.12
08-04-2014	17459	31	32.9	24.80	26.32
09-04-2014	17459	31.1	32	24.88	25.60
10-04-2014	17459	30.7	31.5	24.56	25.20
13-04-2014	17459	29.4	31	23.52	24.80
15-04-2014	17459	28.7	29.5	22.96	23.60
16-04-2014	17459	28.1	29.4	22.48	23.52
17-04-2014	17459	27.8	29.5	22.24	23.60
20-04-2014	17459	29.3	30.3	23.44	24.24
21-04-2014	17459	28.9	30	23.12	24.00
22-04-2014	17459	29.1	30.2	23.28	24.16
23-04-2014	17459	29.1	29.8	23.28	23.84
24-04-2014	17459	29.2	29.8	23.36	23.84
27-04-2014	17459	29.1	29.9	23.28	23.92
28-04-2014	17459	28	29.1	22.40	23.28
29-04-2014	17459	26.7	28.2	21.36	22.56
30-04-2014	17459	26.5	28.2	21.20	22.56
04-05-2014	17459	27	28.6	21.60	22.88
05-05-2014	17459	27.7	30	22.16	24.00
06-05-2014	17459	29.2	30.8	23.36	24.64
07-05-2014	17459	29.7	31	23.76	24.80
08-05-2014	17459	29.1	30.2	23.28	24.16
11-05-2014	17459	30	31.7	24.00	25.36
12-05-2014	17459	30.9	32.4	24.72	25.92
14-05-2014	17459	30.2	31.3	24.16	25.04
15-05-2014	17459	29.6	30.8	23.68	24.64
18-05-2014	17459	29.3	30.2	23.44	24.16
19-05-2014	17459	28.6	30.1	22.88	24.08
20-05-2014	17459	28.2	29	22.56	23.20
21-05-2014	17459	29	29.6	23.20	23.68
22-05-2014	17459	28.5	29.5	22.80	23.60
25-05-2014	17459	28.3	28.7	22.64	22.96
26-05-2014	17459	28.3	28.6	22.64	22.88

27-05-2014	17459	28.3	28.9	22.64	23.12
28-05-2014	17459	28	28.6	22.40	22.88
29-05-2014	17459	27.6	28.2	22.08	22.56
01-06-2014	17459	27.2	28	21.76	22.40
02-06-2014	17459	27	27.7	21.60	22.16
03-06-2014	17459	26.9	28.4	21.52	22.72
04-06-2014	17459	26.7	28.1	21.36	22.48
05-06-2014	17459	26.7	28.1	21.36	22.48
08-06-2014	17459	27	27.6	21.60	22.08
09-06-2014	17459	27.3	28.1	21.84	22.48
10-06-2014	17459	27.2	27.8	21.76	22.24
11-06-2014	17459	27.5	28.6	22.00	22.88
12-06-2014	17459	27.5	28	22.00	22.40
15-06-2014	17459	26.7	27.5	21.36	22.00
16-06-2014	17459	26.1	27.2	20.88	21.76
17-06-2014	17459	25.6	26.4	20.48	21.12
18-06-2014	17459	25.6	26.5	20.48	21.20
19-06-2014	17459	25.6	26.1	20.48	20.88
22-06-2014	17459	25.3	25.6	20.24	20.48
23-06-2014	17459	25.3	25.6	20.24	20.48
24-06-2014	17459	25.5	25.8	20.40	20.64
25-06-2014	17459	25.6	26.4	20.48	21.12
26-06-2014	17459	25.8	26.4	20.64	21.12
29-06-2014	17459	26.5	27.3	21.20	21.84
30-06-2014	17459	26.1	26.7	20.88	21.36
02-07-2014	17459	25.8	26.3	20.64	21.04
03-07-2014	17459	25.7	26.6	20.56	21.28
06-07-2014	17459	26.6	27.3	21.28	21.84
07-07-2014	17459	26.3	26.8	21.04	21.44
08-07-2014	17459	25.8	26.4	20.64	21.12
09-07-2014	17459	25.6	26.2	20.48	20.96
10-07-2014	17459	25.2	26.2	20.16	20.96
13-07-2014	17459	25.2	25.6	20.16	20.48
14-07-2014	17459	25.4	25.8	20.32	20.64
15-07-2014	17459	25.2	25.5	20.16	20.40
16-07-2014	17459	25.2	25.5	20.16	20.40
17-07-2014	17459	25.3	26.4	20.24	21.12
20-07-2014	17459	25.8	26.7	20.64	21.36
21-07-2014	17459	25.9	26.6	20.72	21.28
22-07-2014	17459	26	26.8	20.80	21.44
23-07-2014	17459	26.2	26.6	20.96	21.28
24-07-2014	17459	26.3	26.6	21.04	21.28
03-08-2014	17459	27	29	21.60	23.20
04-08-2014	17459	28.8	30	23.04	24.00
05-08-2014	17459	29.5	31	23.60	24.80
06-08-2014	17459	30	32.4	24.00	25.92
07-08-2014	17459	30.3	32	24.24	25.60
10-08-2014	17459	31.8	34	25.44	27.20

11-08-2014	17459	31.7	33.7	25.36	26.96
12-08-2014	17459	30.1	32.7	24.08	26.16
13-08-2014	17459	30.3	33	24.24	26.40
14-08-2014	17459	32.5	33.8	26.00	27.04
18-08-2014	17459	32.1	33.4	25.68	26.72
19-08-2014	17459	31	32.8	24.80	26.24
20-08-2014	17459	30.5	32.1	24.40	25.68
21-08-2014	17459	30.9	32	24.72	25.60
24-08-2014	17459	32.2	32.9	25.76	26.32
25-08-2014	17459	31.5	32.9	25.20	26.32
26-08-2014	17459	30.9	32.4	24.72	25.92
27-08-2014	17459	31	32	24.80	25.60
28-08-2014	17459	31.4	32.7	25.12	26.16
31-08-2014	17459	32.9	35.2	26.32	28.16
01-09-2014	17459	33.6	34.8	26.88	27.84
02-09-2014	17459	33.8	35.3	27.04	28.24
03-09-2014	17459	33.1	34.9	26.48	27.92
04-09-2014	17459	33.8	36	27.04	28.80
07-09-2014	17459	32.8	34.5	26.24	27.60
08-09-2014	17459	31.5	33	25.20	26.40
09-09-2014	17459	31.5	32.9	25.20	26.32
10-09-2014	17459	31	32.3	24.80	25.84
11-09-2014	17459	30.1	31.4	24.08	25.12
14-09-2014	17459	30.4	30.9	24.32	24.72
15-09-2014	17459	30.1	32.2	24.08	25.76
16-09-2014	17459	28.5	31	22.80	24.80
17-09-2014	17459	26.3	29.4	21.04	23.52
18-09-2014	17459	26.5	28.8	21.20	23.04
21-09-2014	17459	27.1	28.5	21.68	22.80
22-09-2014	17459	26.8	27.9	21.44	22.32
23-09-2014	17459	26.6	27.5	21.28	22.00
24-09-2014	17459	26.6	27.7	21.28	22.16
28-09-2014	17459	21.3	22.8	21.30	22.80
29-09-2014	17459	21.1	23	21.10	23.00
30-09-2014	17459	21.1	21.7	21.10	21.70
01-10-2014	17459	21	21.7	21.00	21.70
02-10-2014	17459	21.6	22.7	21.60	22.70
12-10-2014	17459	22.2	23.5	22.20	23.50
13-10-2014	17459	21	23.6	21.00	23.60
14-10-2014	17459	22	22.9	22.00	22.90
15-10-2014	17459	22.2	22.7	22.20	22.70
16-10-2014	17459	20.5	22.4	20.50	22.40
19-10-2014	17459	21.7	22.3	21.70	22.30
20-10-2014	17459	21.5	22	21.50	22.00
21-10-2014	17459	21.7	22	21.70	22.00
22-10-2014	17459	22	22.8	22.00	22.80
23-10-2014	17459	21.7	22.8	21.70	22.80
26-10-2014	17459	21.5	21.9	21.50	21.90

27-10-2014	17459	21.4	21.7	21.40	21.70
28-10-2014	17459	21.1	21.7	21.10	21.70
29-10-2014	17459	21	21.5	21.00	21.50
30-10-2014	17459	21.2	22	21.20	22.00
02-11-2014	17459	21.1	21.9	21.10	21.90
03-11-2014	17459	21	21.4	21.00	21.40
05-11-2014	17459	20.9	22.2	20.90	22.20
06-11-2014	17459	21.4	21.9	21.40	21.90
09-11-2014	17459	19.6	23	19.60	23.00
10-11-2014	17459	20.2	23.5	20.20	23.50
11-11-2014	17459	20.5	22.9	20.50	22.90
12-11-2014	17459	20.2	24	20.20	24.00
13-11-2014	17459	21	24.5	21.00	24.50
16-11-2014	17459	21.7	25	21.70	25.00
17-11-2014	17459	22	23.9	22.00	23.90
18-11-2014	17459	21.5	24.7	21.50	24.70
19-11-2014	17459	22	25.5	22.00	25.50
20-11-2014	17459	22	24.7	22.00	24.70
23-11-2014	17459	22	25.6	22.00	25.60
24-11-2014	17459	21.8	24	21.80	24.00
25-11-2014	17459	22	23.9	22.00	23.90
26-11-2014	17459	21	23.7	21.00	23.70
27-11-2014	17459	21.5	23.4	21.50	23.40
30-11-2014	17459	21.2	23.5	21.20	23.50
01-12-2014	17459	21.3	23.8	21.30	23.80
02-12-2014	17459	21.6	24.3	21.60	24.30
03-12-2014	17459	22	26	22.00	26.00
04-12-2014	17459	23	25.6	23.00	25.60
07-12-2014	17459	23.5	26.4	23.50	26.40
08-12-2014	17459	24	26.3	24.00	26.30
09-12-2014	17459	24	27.4	24.00	27.40
10-12-2014	17459	25	27.5	25.00	27.50
11-12-2014	17459	26	27.8	26.00	27.80
14-12-2014	17459	27	28.1	27.00	28.10
15-12-2014	17459	27.5	28.6	27.50	28.60
17-12-2014	17459	28.3	30	28.30	30.00
18-12-2014	17459	29	30	29.00	30.00
21-12-2014	17459	28.1	29.2	28.10	29.20
22-12-2014	17459	28.4	29.6	28.40	29.60
23-12-2014	17459	28	30.5	28.00	30.50
24-12-2014	17459	27.9	28.4	27.90	28.40
28-12-2014	17459	26.8	28.2	26.80	28.20
29-12-2014	17459	27	28.3	27.00	28.30
30-12-2014	17459	27.3	29.4	27.30	29.40