

The Impact of Initiating Dividend Payments on Shareholders' Wealth: Evidence from Egypt

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Abstract

Purpose – The goal of this study is to look into how signaling and dividend policy affect stock market values.

Design/methodology/approach – Ten firms that are listed on the Egyptian Exchange (EGX-30) and (EGX-70) are taken as a sample for the period 2017-2021. Provided data on dividend announcement signaling over five years was computed using a 20-day window from the announcement date to the Ex-Coupon date for the specified duration. The study uses Eviews-12's Generalised Method of Moments (GMM) for dynamic panel models to examine how dividend policy and signaling impact stock market prices are related.

Findings – The findings reveal, that Dividend payments have a significant positive signaling effect on stock prices in the Egyptian Stock Market.

Research limitations/implications – This study fills the research gap in the Egyptian context specifically, as well as globally by providing important insights into the relationship between a firm's dividend policy and shareholders' wealth. However, because this study is based in Egypt, the generalizability of the results would be limited.

Practical implications – The study's conclusions can assist business management in formulating dividend policies that will optimize shareholder wealth. Additionally, this study gives investors direction and information on which businesses to invest in to increase their wealth.

Keywords: dividend policy, shareholders' wealth, dividend payout, dividend yield, dividend per share, earnings per share

1. Introduction

A company's financial management strategy aims to maximize the wealth of its shareholders. As a result, the goal of all business choices, including the dividend decision, is to maximize shareholder wealth. One of the major corporate financing decisions that impact business value and shareholders' wealth is the individual decision. Gallagher (2003) states that since investors dislike surprises, companies need to have a clear and concise policy. However, not every shareholder has the same preferences. While some shareholders enjoy steady dividend payments, others would rather see their money reinvested in the company to reap larger dividends down the road. Therefore, the question of whether to pay dividends or retain them has been the subject of intense discussion over the past few decades given the goal of maximizing shareholders' wealth (David et al., 2022; Farrukh et al., 2017; Ifeanyichukwu & Yusuf, 2021; Aminu & Salawudeen, 2019; Khan et al., 2018; Ogunseye & Omaniya, 2020; Ramcharran, 2001; Ramadan, 2013; Ullah et al., 2021). Dividend policy has been a topic of interest ever before joint stock corporations were established. "Dividend policy connotes to the payout policy, which managers pursue in deciding the size and pattern of cash distribution to shareholders over time," claim John and Williams (2000). Dividend policy is therefore among the most intricate areas of finance. However, The dividend strategy that maximizes the business value by driving up the price of the company's stock is the best one. Because businesses are generally hesitant to alter their payout policies—in particular, they resist reducing dividends even in the face of declining earnings—dividends are sticky. Given the growing importance of finances in the company's overall growth plan, decisions about dividends are seen as being crucial. Determining the best dividend policy to increase the firm's worth should be the finance manager's main goal

(Gordon, 2003).

The main objective of management is to maximize shareholder wealth, which is equivalent to maximizing the company's worth as indicated by the price of its common stock. Management academics and economists have focused on the topic of corporate dividend policy, leading to theoretical modeling and empirical investigation. Nevertheless, conflicting theories and literature now in circulation relate to the relationship between shareholders' wealth and dividend policy. According to the dividend policy's relevance theory, holders' wealth is unaffected (Black & Scholes, 1974; Miller, 1986; Miller & Modigliani, 1961). However, other theories such as the bird-in-hand (Gordon, 1959), clientele (Elton & Gruber, 1970; Miller, 1977), and signaling (Battacharya, 1979; Miller & Rock, 1985) contend that dividend policy has an impact on shareholders' wealth. On the other hand, the clientele theory predicts a negative association between dividend policy and shareholders' wealth, while the bird-in-hand and signaling theories anticipate a positive relationship. The hypotheses have all been validated and disproved by empirical researchers. For instance, In the opinion of Nippel (2008), a company's share values often decline in response to a decrease in dividend payments. Dividend increases that are announced cause abnormally negative security returns. Dividends have a signaling effect that causes share prices to decline. The signaling effect states that management have superior and private knowledge about prospects, and they decide on a dividend level to communicate that knowledge. A steady dividend payment ratio could result from this. According to Lease, John, Kalay, Loewenstein, and Sarig (2000), the relevant dividend theory and the irrelevant dividend theory are two separate and conflicting ideas about dividend policy and how it affects firm value. The ongoing dividend discussion about whether dividend policy influences share price and firm value has been greatly aided by the dividend policy argument that was triggered by these two opposing dividend theories. A carefully considered dividend policy may add value, however, some managers and a larger proportion of academics disagree (Lease et al., 2000). Some even say that dividend policies are irrelevant, that any policy is superior to another, and that dividend payments ought to be limited to residual income. Some people believe that well-managed dividend initiatives can increase the value of the company. This raises the question of whether dividend policy has any effect at all on the value of the company.

The decision to pay dividends and its impact on shareholders' wealth is therefore still a mystery, and the question of why businesses pay dividends and how it affects shareholders' wealth remains unresolved. It is crucial to remember that the majority of research on dividend policy has been done in developed countries, whereas the developing economies have produced very few studies. As a result, there is a significant information gap that has to be filled by researchers. This study will examine the impact of dividend policy on business value, with a focus on Egyptian publicly traded companies. The effect of dividend policy on stock market prices on an annual basis for the years 2017 through 2021 will be examined in this study. Data on dividend announcement signaling was computed using a 20-day window from the announcement date to the Ex-Coupon date for the specified duration. This study utilizes Eviews-12 to apply the Generalised Method of Moments (GMM) to the dynamic panel models for analysis.

2. Literature Review

2.1 Theoretical Literature Review

The residual dividend idea, which maintains that corporations shouldn't be impacted by dividend size, is still quite popular. This notion states that dividends should only be distributed when all available options for investments have been used. According to this hypothesis, the quantity and number of budget initiatives that can be approved as well as the amount of revenue available to fund equity—the money required to pay for such projects—determine the amount of retained earnings. As a result, whatever money these initiatives generate after funding will be used to pay dividends. This theory is called the residual dividend hypothesis since the dividend is derived from unutilized earnings following the investment. This strategy's justification is that it must be carefully managed to guarantee that the company has the liquidity required to compete successfully. According to this perspective on dividends, the company's dividend policy has no bearing on the required return for investors. This argues that the dividend policy is insignificant in the sense that it has no bearing on the company's worth.

Graham and Dodd (1934) created the standard school of dividend theory proponents. They contend that the influence of a particular dividend on stock prices is four times greater than that of a given amount of retained earnings. Linter (1956), Gordon (1959), Brittain (1964), and others provided further assistance. The writings of Walter (1956), Gordon (1959), and (1963) provide a fairly clear exposition of the traditional school's views regarding the effect of dividends on stock price.

According to Walter (1956), the firm's ability to pay dividends is contingent upon the profitability of its

investment prospects. The link between the firm's internal rate of return and the needed rate of return, also known as the cost of capital, for shareholders, can be used to explain the profitability of investment options. Walter (1956) bases his argument on the following presumptions: the company is entirely financed by equity, and investors are risk averse; there will be no outside funding; all investment programs will be funded by retained earnings; the cost of capital, earnings per share, dividend per share, and internal rate of return are all constant; and all earnings are either retained for internal investment or distributed as a dividend. Walter (1956) continues to assert that the relationship between the firm's internal rate of return and the dividend policy's effect on share price is what matters.

In line with Gordon's (1959) reasoning, firms pay dividends to raise the value of their shares on the market. Gordon's methodology links the company's dividend policy to its market value. The market value of a share is primarily determined by three factors: the firm's predicted yearly growth rate, the cost of capital, and the eternal stream of future dividends to be paid. However, according to Gordon's theory of dividend policy, the market price per share of the business is influenced by the dividend distribution policy of the company as well as the link between the firm rate of return and the cost of capital. Gordon and Walter make nearly identical assumptions. Gordon (1959) would subsequently argue that investors may have a predisposition to apply a larger discount rate to future dividends or capital gains than to near dividends if the underlying assumptions are changed to incorporate conditions of uncertainty. This is due to Since they are risk-cautious and logical, investors would rather receive dividends now than in the future.

The "bird-in-the-hand" argument states that closer dividends are less hazardous than farther payouts or capital gains.

In accordance to the "bird in hand" which was invented by Gordon (1962) and Lintner (1963), the dividend payment has a positive relationship with and determines the company's value. They contend that when dividend payments rise, the value of the company's stock will rise dramatically. In order to substantiate his theory, Gordon (1962) examined three potential theories regarding the motivations behind investor purchases of particular equities. These include receiving only capital gains, solely dividends, or receiving both capital gains and dividends. Gordon (1962) demonstrated that stock prices are more influenced by dividends than by retained earnings. The same findings were confirmed by Fischer (1961). However, strict assumptions mean that the model does not accurately represent the situation.

On the other hand, A company's risk cannot be decreased by raising dividend payments because a company's risk is based on its cash flow risk. Generally speaking, an aerial explanation of dividends is discouraged in most financial economics texts. The Theory of Dividend Irrelevance Miller and Modigliani (1961) claimed that dividends were insignificant and had no effect on the stock price of the firm. They held the opinion that dividend policy had no bearing on shareholder value in a world with an efficient market. Rejecting Gordon's widely accepted theory—according to which stock prices are influenced by dividend payments—M&M strengthened their case. Their main argument from 1961 is that in perfect capital markets, a company's value is independent of its dividend policy. They restate their key presumptions, which include the following: a perfect capital market, rational behavior, information transparency, and a company's long-term investment policy, which is unaffected by changes in dividend payments.

M&M (1961) assumes that the company will always continue investing since all projects are funded with positive present value or dividends representing the company's remaining free cash flow, irrespective of the payout plan. Investors typically find false information regarding the company's progress and interpret the dividend payment as a sign of the worth of a corporation is mostly based on its potential to generate basic income and its trading risk. Nevertheless, this theory is based on extremely stringent presumptions, particularly eliminating transaction expenses and taxes. Consequently, experts and traders disapproved of MM's idea, claiming that it was predicated on unrealistic assumptions about the perfect capital market. On the other hand, Opponents of MM's theories have advanced other theories and hypotheses to demonstrate empirically that dividends are significant in situations where the capital market is not perfect.

The M&M paper was criticized by Gordon (1963) and Lintner (1962), who argued that investors favor (some) dividends over retained earnings because dividends reduce stock market risk. To optimize the value of their stock, corporations should set a high payout ratio because dividend yields are a safe option while capital gains return carry some risk.

Meanwhile, Walter (1963) created his model to calculate a company's worth by taking into account the dividend's significance. The company's dividend payout ratio and the ratio of its cost of capital to internal rate of return are the two primary elements that typically impact assumptions. He used the internal rate of return (r) and

the cost of capital (k_e), which reflects an opportunity cost to shareholders, to illustrate how changes in dividend payments would affect total goodwill. There are three possible paths. The overall worth of the company falls if the company $r > k_e$ and the dividend payout rises, and vice versa. This indicates that goodwill and dividend payments are negatively correlated, meaning that when a company's value rises and its dividend payment rises, so does the company's overall worth. This indicates that dividend payments and goodwill have a favorable association (Walter, 1963).

When $r = k_e$, there is a neutral relationship between dividend payments and goodwill.

The Walter model is not without flaws and detractors. For instance, it assumes that the business doesn't require any further funding. No long-term benefit and no practical usage. Depending on the state of the business, the rate of return may rise or fall. That then makes sense. It is predicated on a fixed cost of capital, per Walter's concept. This isn't applicable in the real world of business, though.

In a perfect market, dividend policy is meaningless since it has no bearing on the company's worth or the welfare of its shareholders, according to Brennan's (1970) Theory of Dividends and Tax Preferences on Dividend Irrelevance Policy. However, one of their presumptions is that taxes don't exist. Conversely, as sane investors, shareholders would choose a lower income tax rate if dividend payments and/or capital gains were subject to taxation. By treating taxes as a systematic flaw in the financial markets and bringing out the potential consequences of tax clientele, M&M calls attention to these impacts.

Frankfurter, Wood and Wansley (2003) proposed that models that depict the correlation between dividends and taxation can be classified into two separate categories. Models Adjusted for Taxes: Investors seeking larger returns on their investments will want equities with cash dividends due to the tax consequences. In this instance, the anticipated dividend payment ought to be sufficiently large to furnish stockholders with the necessary net income after taxes. Because of this, equities that offer cash dividends are typically purchased by investors at a discount. Companies are advised to decrease or stop paying cash dividends under these models (Brennan, 1970).

The tax avoidance models supported by Miller and Scholes (1978) make up the second group. Brennan's (1970) argument states that because dividends are subject to a higher tax burden than capital gains, shareholders favor modest dividends. This idea states that shareholders would prefer income and lower capital gains on their stocks than dividends. One thing to keep in mind when applying this principle is that retained earnings may be advantageous because dividend taxes are paid in the year the dividend is received rather than capital gains taxes, which are paid when the stock is sold.

According to the dividend signaling hypothesis, which was developed by Ross (1977) and Denis et al. (1994), changes in payouts inform investors about management's outlook for the firm and future profitability. Unless it is assumed that future profits will cover the dividend increase, management will not raise dividends. On the other hand, dividend reductions are viewed as "bad news" since they indicate to investors that profits in the future will be less than those in the present. In brief, this theory holds that investors favor high, steady dividends over low, volatile ones and that managers use dividends to transmit signals to the market. A rise in dividend payments can be interpreted by shareholders as a sign of future profitability based on the signaling hypothesis. Several academics have endorsed and referenced the dividend policy reporting perspective, including Bhattacharya (1979) and Miller and Rock (1985).

Referring to Jensen (1986) and Rozeff (1982) dividend agency hypothesis, managers can lower payouts to boost free cash flow and take on more advantages at the expense of shareholders. According to agency theory, boosting dividends is one approach to lower agency costs. Companies that pay larger dividends have less internal liquidity and are more likely to look outside for funding. Dividends have the potential to lower managers' free cash flow (Easterbrook, 1984). Additionally, managers may need to generate additional capital to pay dividends. By doing this, shareholders can inexpensively exert control over management and stop them from working in their own best interests. Higher dividend payments, according to a study by Jensen (1986), lower "free cash flow agency costs" and deter managers from allocating extra capital to low-return or "preferred" initiatives that serve managers' interests rather than shareholders.

Regarding the customer effect idea, which was put forth by Black and Scholes (1974) and Pettit (1977), investors like to invest in businesses that complement their factor endowments. One of the most prevalent examples of this is the investor tax status. One could argue that tax rates and stock market returns, or dividends, are inversely correlated. For instance, to pay less tax, an investor in a high tax bracket would decide to purchase low-yielding equities. However, since there are currently fewer taxes due, an investor with a low tax rate would undoubtedly choose stocks with higher returns. Pettit (1977) shows that while high-dividend stocks offer less income, older (retired) investors are more likely to purchase them.

Because investors receive their preferred returns from their shares, the clientele effect lends credence to the claim that the dividend policy does not affect the value of the shares. To sum up, the customer dividend theory posits that the impact of dividends varies based on the specific investor group, namely consumers. For the cost of living and tax considerations, poor (and aging) investors prefer big recurring cash payouts, in contrast to rich investors.

According to Rozeff's (1982) Dividend and Growth Theory, a company will need to keep more earnings to support its prospects for productive investments, which will result in fewer dividend payments. This theory combines the ISO(Incentive stock option) investment opportunity calendar with residual dividend policy.

On the other hand, according to Elton and Gruber's (1970) research, a company's dividend policy has an impact on shareholder tax rates. This finding supports the notion of the M&M clientele effect and raises the possibility that changing a dividend policy could cause a significant shift in stock wealth. It also demonstrates a form of market rationality whereby shareholders in higher tax brackets are more likely than those in lower tax brackets to show capital gains linked to dividend income. The tax-based mathematical model by Elton and Gruber (1970) is a useful illustration of a dynamic customer model. On that particular day, they discovered a positive correlation between the ex-dividend price's relative fall and the stock dividend yield. They maintained that long-term marginal investors are not concerned if they purchase or sell before or after the ex-dividend date because stock values are at such high levels on that day. They supported MM's conclusion that investors pay high taxes like low-yielding companies, whereas investors pay low taxes like high-yielding stocks.

2.2 Empirical Literature Review

AbdelMegeid and Sobhy (2022) looked into the connection between the stock value of the company and its dividend policy. Information from 45 non-financial firms listed on the Egyptian Stock Exchange (EGX) between 2015 and 2020, based on their annual financial statements. The findings show that the value of the company's shares is positively and significantly impacted by dividend payout. Given that dividend payments to investors transmit a positive signal, the study also suggests a connection between signal theory and dividends.

Meanwhile, Usman, Lestari, and Sofyan (2020) looked at how dividend policies affected stock prices. From 2014 to 2018, 36 manufacturing businesses were listed on the Indonesia Stock Exchange. The results show that share prices are positively impacted by dividends per share; while share prices are negatively impacted by dividend yield.

The effect of dividend payments on the value of companies listed on the Istanbul Stock Exchange (ISE) was examined by Budagaga (2017). Information from 44 companies listed between 2007 and 2015 on ISE. The findings disprove the dividend irrelevance hypothesis and favor agency cost over the signaling hypothesis explanation.

Furthermore, Al-Hasan (2013) looked into how dividend policies affected share prices on the market. For the years 2005 to 2009, a total of 28 companies were chosen, seven from each industry. The dividend policy has a noteworthy impact on the share price, according to the results. Moreover, Singh and Tandon (2019) assessed how dividend policies affected share prices in the market. The National Stock Exchange (NSE) has listed Nifty 50 firms between 2008 and 2017. The outcome shows that dividend policies have a major impact on company stock prices. Additionally, Nwamaka and Ezeabasili (2017) investigated how stock prices were impacted by dividend policies. Ten consumer products companies that were listed on the Nigerian stock exchange between 2011 and 2015 comprise the data. The findings show that whereas the dividend payout ratio has a large beneficial impact on market price share, the dividend yield has a minor negative impact.

Research by Ali, Sharif, and Jan (2017) looks into how stock prices are affected by dividend policies. 45 non-financial companies that were listed on the KSE-100 index between 2001 and 2012 comprise the data set. The findings show that while dividend per share has little bearing on stock market price, the dividend payout ratio has a considerable beneficial impact on company prices.

Bamidele and Luqman (2018) investigate how dividend policies affect common stock market value. Data include 199 first-tier stocks that were listed between 2010 and 2014 on the Nigerian Stock Exchange's main board. The outcome shows that the dividend payment ratio influences stock prices positively.

From 1997 to 2012, Salman, Lawal, and Anjorin (2015) looked into how the dividend policy affected the share prices of ten chosen quoted companies on the Nigerian stock exchange. The least squares method was used to analyze the panel data. The study's findings indicate that the revenue streams of the corporations under investigation influence the market price of their shares more than their dividend payments.

The study conducted by Sharif, Ali, and Farzand (2015) aimed to determine if there was a correlation between 45

non-financial firms that were listed on Karachi Stock Prices in Pakistan between 2001 and 2012 and their dividend policy. Fixed and random effect tests were employed to analyze the panel data; Hausman's test was utilized to focus the results of the random effect test. According to the findings, share prices and the dividend payout ratio have a strong positive correlation.

Similarly, Sulaiman and Migiyo (2015) investigated the impact of dividend decisions on changes in the stock prices of fifteen listed businesses on the Nigeria Stock Exchange between 2003 and 2012, employing a fixed and random effect model. Their research's findings indicate a positive correlation between decisions about paying dividends and variations in stock prices, earnings per share, company size, and dividend per share. Both the earnings per share and the dividend per share showed a strong positive correlation with the stock price. According to the study, the market value of a company's stock price is not primarily determined by its size. Additionally, the study confirmed that dividend payout improves stock price performance, hence supporting the dividend-relevant hypothesis.

On the other side, Masum (2014) looked at the correlation between the stock market results of all 30 private commercial banks registered on the Bangladeshi Dhaka Stock Exchange and their dividend policies between 2007 and 2011. Both fixed and random effects were used to evaluate the panel data, with fixed effects producing better results than random effects. The research reveals that while dividend yield and profit after taxes have a negligible negative impact on stock prices, earnings per share, return on equity, and retention ratio have a positive association with stock prices and considerably explain differences in the stock prices.

Munaya (2014) looks into how dividends affect stock values. There were 61 listed companies at the NSE in the ten years from 2004 to 2013. The outcome shows that there is a significant positive correlation between share prices and dividends per share, indicating that the dividends per share handed out have an impact on share prices.

Conversely, Hunjra, Ijaza, Chani, Hassan, and Mustafa (2014) explored the impact of profit after taxes, return on equity, earnings per share, and dividend policy on the stock prices of 63 companies listed on the Karachi Stock Exchange in another study. From 2006 to 2011. Ordinary least squares analysis was used to examine the panel data. They discovered that, in support of the dividend irrelevance argument, the dividend yield has a negative relationship with stock price while the dividend payout ratio had a positive link. Additionally, they proposed that while return on equity has a favorable but negligible impact on stock price, other variables like profit after tax and earnings per share have a big positive impact.

Al-Hasan, Asaduzzaman, and Karim (2013) assessed how 28 businesses from four sectors in Bangladesh's market price of their shares changed as a result of their dividend policy between 2005 and 2009. Results from multiple regression and correlation analysis indicate that market price is more impacted by dividend distribution than retention is. The results validate the pertinent dividend policy theory proposed by Walter and Gordon.

Additionally, Pontoh (2013) investigated the impact of bird in the hand, catering, and signaling on 372 Indonesian Stock Exchange-listed firms between 2010 and 2012. The independent samples t-test, the analysis of the variance model, and the analysis of the covariate model were used to analyze the data. The study went on to confirm the traits of dividend payers based on broad financial variables by performing additional analysis using multinomial logistic regression and the data reduction approach. The outcome showed that dividends have a major impact on stock price, and stock price has a major impact on dividends as well.

Khan (2012) looks at the impact of stock and cash dividends on the stock prices of 25 particular chemical and pharmaceutical companies that were listed on Pakistan's Karachi Stock Exchange between 2001 and 2010. After adjusting for earnings per share, retention ratio, and return on equity, the panel data were examined using fixed and random effect estimating approaches. The study demonstrates that while earnings per share and stock dividend have a negative and negligible impact on the firms' stock prices, cash dividend, retention ratio, and return on equity have positive and large effects on stock prices.

Joshi (2011) studied the effect of dividends on the stock prices of 163 listed firms on the Nepal Stock Exchange for the 2010–11 fiscal year, including both banking and non-banking companies. Regression analysis utilizing ordinary least squares was used to analyze the data. According to the study, retained earnings have less of an impact in Nepal than dividends do, and dividends have a big influence on market stock prices in both the banking and non-banking sectors.

In order to test the semi-strong hypothesis of market efficiency, Akbar and Baig (2010) looked into how common stock market prices responded to dividend announcements. Over the course of three years, from July 2004 to June 2007, they examined cash, stock, and simultaneous cash stock dividend announcements from 79 companies listed on the Karachi Stock Exchange in Pakistan. The t-test and Wilcoxon Signed Rank Test were used to

analyze the data to determine the aberrant returns from the market. Nonetheless, the study came to the statistically significant conclusion that stock price is impacted by dividend announcements.

Adelegan (2009) looked into how well the Nigerian stock market adjusts prices in response to dividend announcements. Data for the study was collected between 1991 and 1999 from the Nigeria Stock Exchange fact book, quoted companies' annual reports, and the daily official pricing list. The Capital Asset Pricing Model (CAPM) was used to analyze the data. According to the study, during 30 days starting on the day of the announcement, the cumulative excess returns (CERs) for dividend-paying corporations are positive and statistically significant, whereas the CERs for dividend-omitting companies are significant and negative throughout the same period. Nonetheless, the study found that although share prices do respond to dividend announcements, the Nigerian stock market is not semi-strong efficient and that dividend policy matter. The results demonstrate that insignificantly high returns for cash dividend announcements result in simultaneously high returns for both common stock and cash, as well as average abnormal and cumulative average abnormal returns.

3. Methodology

This research tries to examine the effects of the Dividends Policy (DIV-X) as an independent variable on the dependent variable Stock Market Price (SMP-Y). This has been applied using single regression according to panel analysis techniques according to the Generalized Method of Moments (GMM) technique. Table 1 shows the characteristics of research variables, as follows:

Table 1. The research variables

Variable	Sign
Dividends Policy	(DIVP-XA)
Dividend Signaling	(DIVS-XS)
Stock Market Price	(SMP-Y)

3.1-Descriptive Statistics

The following tables illustrate the descriptive statistics of the research variables, as follows:

Table 2. Descriptive statistics of variables

	(SMP-Y _A) Annual	(SMP-Y _S) Signaling	(DIV-X _A) Annual	(DIV-X _S) Signaling
Mean	3.200751	3.194026	0.112998	0.167111
Median	2.995732	2.914522	-0.359232	-0.287682
Maximum	5.118293	5.696523	2.833213	2.833213
Minimum	0.770108	0.751416	-2.302585	-2.302585
Std. Dev.	1.129801	1.140923	1.709695	1.673549
Skewness	0.052475	0.040904	0.221080	0.192887
Kurtosis	2.000349	1.934088	1.473240	1.484529
Jarque-Bera	2.104826	45.00013	5.263542	96.29055
Probability	0.349094	0.000000	0.071951	0.000000
Sum	160.0376	3018.354	5.649886	157.9198
Sum Sq. Dev.	62.54609	1228.810	143.2297	2643.923
Observations	50	945	50	945

Descriptive statistics results showed the following:

Dependent Variable (SMP-Y_A) Annual: the mean for the period from 2017 to 2021 is (3.200751) with a median of (2.995731), as the maximum value during the period is (5.118293) and the minimum value during the period is (0.770108) with a standard deviation of (1.129801). The skew coefficient is positive (0.052475) indicating that the frequency distribution curve is skewed to the right with a Kurtosis coefficient of (2.000349), As the value of the Jarque-Bera Test: P 0.349091 is greater than 5%, therefore the variable follows the normal distribution, Observations (50), Cross sections (10) (That is, the number of listed companies).

Dependent Variable (SMP-Y_S) Signaling: the mean for the period from 2017 to 2021 (100 days) is (3.194026) with a median of (2.914522), as the maximum value during the period is (5.696523) and the minimum value during

the period is (0.751416) with a standard deviation of (1.140923). The skew coefficient is positive (0.040904) indicating that the frequency distribution curve is skewed to the right with a Kurtosis coefficient of (1.934088), As the value of the Jarque-Bera Test: P 0.000000 is less than 5%, therefore the variable does not follow the normal distribution, Observations (945), Cross sections (10) (That is, the number of listed companies).

The Independent Variable (DIV-X_A) Annual: the mean for the period from 2017 to 2021 is (0.112998) with a median of (-0.359232), as the maximum value during the period is (2.833213) and the minimum value during the period is (-2.302585) with a standard deviation of (-2.302585). The skew coefficient is positive (0.221080) it indicating that the frequency distribution curve is skewed to the right with a Kurtosis coefficient of (1.473240), As the value of the Jarque-Bera Test: P 0.071951 is greater than 5%, therefore the variable follows the normal distribution, Observations (50), Cross sections (10) (That is, the number of listed companies).

The Independent Variable (DIV-X_S) Signaling: the mean for the period from 2017 to 2021 (100 days) is (0.167111) with a median of (-0.287682), as the maximum value during the period is (2.833213) and the minimum value during the period is (-2.302585) with a standard deviation of (1.673549). The skew coefficient is positive (0.192887) it indicating that the frequency distribution curve is skewed to the right with a Kurtosis coefficient of (1.484529), As the value of the Jarque-Bera Test: P 0.000000 is less than 5%, therefore the variable does not follow the normal distribution, Observations (945), Cross sections (10) (That is, the number of listed companies).

The following table illustrates the correlation between variables each other's, it can be concluded that there is a strong correlation between (SMP-Y) and (DIV-X) Annual showing a positive correlation of 0.909571, (SMP-Y) and (DIV-X) Signaling with a positive correlation of 0.922327.

Table 3. Correlation coefficient between variables

	(SMP-Y)		(DIV-X)
(SMP-Y) Annual	1.000000		
(DIV-X) Annual		0.909571	1.000000
(SMP-Y) Signaling	1.000000		
(DIV-X) Signaling		0.922327	1.000000

3.2 Testing Hypotheses

The below tables will illustrate the determinants of dependent variables using Panel Generalized Method of Moments (GMM) technique.

Table 4. Impact of dividends policy on stock prices (Annual Data)

Method:	GMM (Normal)	GMM (Fixed Effect)	GMM (Random Effect)	Least-Square (OLS)
Variable	Y	Y	Y	Y
C	3.132833	3.169584	3.143094	3.132833
Prob.	0.0000	0.0000	0.0000	0.0000
X	0.601063	0.275820	0.510254	0.601063
Prob.	0.0000	0.0078	0.0000	0.0000
R2	0.827319	0.931088	0.589965	0.827319
Adjusted R2	0.823721	0.913419	0.581423	0.823721
Durbin-Watson	0.471551	1.030286	0.764246	0.471551
F-Statistic Prob.				229.9692
				0.000000
No. of Obs.	50	50	50	50

From Table 4 (Annual Data), GMM normal, fixed effect, and random effect, in addition to Least Squares regression models were used, indicating the significance of independent variables as the probability is less than 5% (Prob. < 0.05). F-Statistic probability also is less than 5%, indicating the significance of the whole model. The coefficient of determination (R^2) for the first model GMM (Normal) is 82.73%, the second model (Fixed Effect) is 93.11%, the third model (Random Effect) is 59.00%, while the last model OLS is 82.37%. It is concluded that there is a significant effect of dividend policies and distributions on the value of the stocks.

A Hausman test is used in the case of a significant difference between fixed and random effects, as it is the extent to which the individual effect is associated with the independent variables. Also, indicate which model is appropriate for regression.

Table 5. Correlated Random Effects-Hausman Test (Cross-section random Effects)

	Chi-Sq. Statistic	Chi-Sq. d.f	Probability
Cross-section random	8.567362	1	0.0034

As shown in Table 5, the probability is less than 5%, so it can be illustrated that the random-effect model is the appropriate regression model.

Table 6. Impact of dividends policy on stock prices (Signaling Data)

Method	GMM (Normal)	GMM (Fixed Effect)	GMM (Random Effect)	Least-Square (OLS)
Variable	Y	Y	Y	Y
C	3.088949	3.141234	3.130757	3.088949
Prob.	0.0000	0.0000	0.0000	0.0000
X	0.628786	0.315910	0.344468	0.628786
Prob.	0.0000	0.0000	0.0000	0.0000
R²	0.850687	0.935823	0.260813	0.850687
Adjusted R²	0.850528	0.935136	0.260029	0.850528
Durbin-Watson	0.094858	0.209734	0.202727	0.094858
F-Statistic Prob.				5372.582
				0.000000
No. of Obs.	945	945	945	945

From Table 6 (Signaling Data), GMM normal, fixed effect, and random effect, in addition to Least Squares regression models were used, indicating the significance of independent variables as the probability is less than 5% (Prob. < 0.05). F-Statistic probability also is less than 5%, indicating the significance of the whole model. The coefficient of determination (R^2) for the first model GMM (Normal) is 85.07%, the second model (Fixed Effect) is 93.58%, the third model (Random Effect) is 26.08%, while the last model OLS is 85.07%. It is concluded that there is a significant effect of dividends signaling of distributions on the value of the stocks.

Table 7. Correlated Random Effects-Hausman Test (Cross-section random Effects)

	Chi-Sq. Statistic	Chi-Sq. d.f	Probability
Cross-section random	25.349042	1	0.0000

As shown in Table 7, the probability is less than 5%, so it can be illustrated that the random-effect model is the appropriate regression model.

3.4 Summary

Table 8. Summary of testing hypotheses results

Dependent / Independent Variables	(DIV- X_A)	(DIV- X_S)	R-Square	P-Value
(SMP- Y_A)				
GMM (Normal)	▪	▪	82.73%	0.0000
GMM (Fixed Effect)	▪	▪	93.11%	0.0078
GMM (Random Effect)	▪	▪	59.00%	0.0000
Least-Squares (OLS)	▪	▪	82.73%	0.0000
(SMP- Y_S)				0.10
GMM (Normal)	▪	▪	85.07%	0.05
GMM (Fixed Effect)	▪	▪	93.58%	0.10
GMM (Random Effect)	▪	▪	26.08%	0.01
Least-Squares (OLS)	▪	▪	85.07%	0.10

4. Conclusion and Recommendation

This paper aims to develop a model, to examine the impact of initiating dividends on shareholders' wealth by using

Data of 10 companies listed in the Egyptian Exchange (EGX-30) and (EGX-70) for the period of 5 years annual data from 2017 to 2021. Signaling of dividends announcement data was calculated as 20 days from the date of announcement till the EX-Coupon date for the mentioned period. The research employs the Generalized Method of Moments (GMM) via EViews-12 for the dynamic panel models to analyze the relationship between dividends policy and signaling effect on stock market prices. Results indicate a significant positive effect of dividends policy on stock market prices, as well as a significant positive signaling effect of dividends on stock prices.

Dividend policy can have a positive signaling effect on share prices for several reasons: Firstly, A company that consistently pays dividends demonstrates that the company is generating sufficient profits to distribute a portion of them to shareholders. This can signal to investors that the company has a healthy financial position, which can boost confidence and positively impact share prices. Moreover, A dividend policy can reflect management's confidence in the company's prospects. When a company announces or increases dividends, it indicates that management believes the company's financial performance is strong and that it expects future profitability to support the dividend payments. This vote of confidence can be viewed positively by investors, leading to increased demand for the company's shares and potentially driving up share prices. Lastly, Dividends are particularly attractive to income-oriented investors, such as retirees or those seeking a regular income stream. When a company adopts a dividend policy or increases its dividend payments, it can attract investors who are specifically looking for stable and predictable income from their investments. The increased demand from income-oriented investors can drive up share prices.

It is recommended for future research to examine the "Event Study Analysis" to check cumulative abnormal return (CAR). It is also suggested to add more potential variables and estimate the model. For instance, determining the impact of dividend policy on different types of securities such as bonds, options, and exchange-traded funds (ETFs). Moreover, additional studies could explore how dividend policy impacts stock market prices during periods of market volatility or economic recession. Additionally, subsequent research could explore the impact of factors such as corporate governance, accounting practices, and legal and regulatory frameworks on this relationship. Finally, it is recommended to increase the number of firms and several periods for which data will be analyzed. By adding more variables, Estimating the model with 2-3 variables by GMM is not suggested. However, The Hansen test, Sargan test, and also the M1 and M2 tests should be reported.

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