1.   ~~REVIEW OF THE EXISTING~~ LITERATURE REVIEW

This chapter ~~aims at reviewing~~reviews the existing ~~previous~~ literature ~~that has already focused on uncovering~~on the link between a firm's dividend policy and its share prices. Since this topic ~~is a long-time debate~~has long been debated ~~for a long time~~, it has produced a large body of literature ~~has been produced~~. ~~In this sense~~Therefore, the goal of this section is ~~obviously~~ not to carry out ~~a complete~~an exhaustive inventory of the existing documentation~~,~~ but ~~rather~~ to ~~select use~~ a sample of the most relevant and ~~best~~well-known publications ~~so as~~ to ~~give provide the reader an insight on what has been unearthed on the~~intohelp the reader understand the influence that dividend announcements have on share prices.

~~Practically speaking, three opposing categories of viewpoints may be highlighted~~Overall, there are three key perspectives on the matter. ~~Firstly, some~~ Some ~~authors defend the thesis according to which~~researchers argue that dividends are irrelevant to shareholders, who ~~; that is, they argue~~ believe that dividends do not affect share prices ~~at all~~. ~~In this sense~~According to this line of thinking, investors are ~~supposed to be~~ indifferent ~~between~~ to any supposed distinctions between high and low dividend payouts. Section 2.1 ~~tackles~~addresses this point of view. A second school of thought ~~supports~~states that dividends and share prices are positively related~~:~~—in other words, ~~-~~the announcement of a high dividend increases share prices. Section 2.2 gives the reader ~~an~~ insight ~~on~~ into this reflection. ~~Finally, a~~ A third group of researchers ~~affirms~~argues the exact opposite: the announcement of a high dividend decreases share prices ~~since~~because ~~there exists~~ an inverse relationship exists between ~~both~~the two variables. In this case, firms with low dividend payouts are rewarded with a higher share price ~~of their shares~~. Section 2.3 focuses on this argument.

Three complementary ~~points of views~~perspectives add ~~even more~~further complexity to this ~~yet already~~ intricate debate. For example, ~~Indeed, s~~Some authors ~~, for instance,~~ think that dividends convey information about ~~the~~a company's financial health and its ability to generate future earnings. In this sense, ~~these researchers argue this~~it is not the dividend ~~as such~~itself that impacts share prices~~,~~ but rather the information conveyed by the dividend distribution. This point of view is often referred to as the information content of dividends~~,~~ or ~~else~~ the ~~signalling~~signaling role of dividends~~,~~ and is presented in section 2.4. ~~Further, some authors~~Other scholars ~~, meanwhile,~~ believe that the impact of dividend announcements depends on the ~~category of~~investors' category and ~~their~~characteristics~~,~~ since every investor has ~~not the same~~different ~~preferences~~preferences regarding dividends. This theory, known as the clientele

effects of dividends, is ~~broached~~ covered in section 2.5. Finally, the catering theory of dividends, ~~according to~~ which considers the impact of dividend announcements ~~is~~ as ~~not~~ unfixed over time~~,~~ and ~~is~~ as a function of investors' demand for dividends, is ~~presented~~ discussed ~~under~~ in section 2.6.

The above perspectives and theories, along with the corresponding empirical research, are ~~then~~ summarized in section 2.7. ~~A welcomed summary then takes place in section 2.7, which objective is to give the reader an immediate overview of the theories and empirical researches that have been mentioned within the chapter.~~

1.1. Dividend irrelevance

1.1.1. The dividend irrelevance hypothesis—Miller and Modigliani (1961)

One of the best-known and most controversial theories on the impact that dividends have on share prices—still considered today to be the basis for some corporate finance decisions—is Miller and Modigliani's (1961) dividend irrelevance hypothesis. This theory claims that investors are equally satisfied by receiving a cash dividend from a company as by experiencing a rise in their wealth due to the appreciation of the company's shares.

Miller and Modigliani (1961) used three key assumptions to reach this conclusion:

1) The capital market is perfectly competitive: investors are price takers, perfect information applies to all participants, and the market is frictionless, meaning that there are no costs, fees, or taxes.
2) Every investor is rational and prefers to be as wealthy as possible in every instance.
3) There is no uncertainty, and every investor is aware of the future investments and profits of any given firm.

Given these simplifying assumptions, Miller and Modigliani (1961) calculated the total shareholder return $R_{j,t}$ on security j during period t, was given by Equation (1):

$$R_{j,t} = \frac{d_{j,t} + (P_{j,t+1} - P_{j,t})}{P_{j,t}} \quad \mathbf{(1)}$$

where $d_{j,t}$ stands for the dividend obtained on security j during period t, $P_{j,t+1}$ is the price of security j at the beginning of period $t+1$ (or at the end of t) and $P_{j,t}$ is the price of security j at the beginning of period t (or at the end of $t-1$).

Basic algebraic handlings show that Equation (2) is equivalent to Equation (1):

$$P_{j,t} = \frac{d_{j,t} + P_{j,t+1}}{1 + R_{j,t}} \quad \mathbf{(2)}$$

Interestingly, Equation (2) enables the calculation of the price of an individual piece of share. To extend this to the valuation of a firm as a whole, new variables were introduced:

- $N_{j,t}$ represents the number of shares outstanding of firm j at the beginning of period t.
- $M_{j,t+1}$ represents the number of new shares of firm j sold during period t.
- $V_{j,t} = N_{j,t} \times P_{j,t}$ represents firm j's value at the beginning of period t.
- $D_{j,t} = N_{j,t} \times d_{j,t}$ represents the total amount of dividend paid by firm j during period t.

~~Then, m~~Multiplying ~~E~~equation (2) by the number of shares outstanding, $N_{j,t}$, and rearranging the resulting expression~~,~~ yields ~~E~~equation (3), ~~valid for the computation of~~which helps to compute firm j's value:

$$V_{j,t} = \frac{D_{j,t} + V_{j,t+1} - M_{j,t+1} \times P_{j,t+1}}{1 + R_{j,t}} \quad (3)$$

Miller and Modigliani (1961) ~~continued with the definition of~~defined two new variables:

- $I_{j,t}$ stands for the investments ~~undertaken~~ made by firm j during period t.

- $X_{j,t}$ represents the net profit of firm j during period t.

Miller and Modigliani (1961) highlighted that the expression $I_{j,t} - \left[X_{j,t} - D_{j,t}\right]$ was the "amount of outside capital required" (p. 414), exclusively covered by the issue of $M_{j,t+1}$ new shares at ~~a~~ price $P_{j,t+1}$. Equation (4) ~~translates~~interprets this last ~~comment~~observation in ~~using~~ mathematical terms:

$$M_{j,t+1} \times P_{j,t+1} = I_{j,t} - \left[X_{j,t} - D_{j,t}\right] \quad (4)$$

~~Eventually, by substituting~~Substituting ~~E~~equation (4) in~~to~~ ~~E~~equation (3) provides~~,~~ ~~E~~equation (5)~~ was obtained~~:

$$V_{j,t} = \frac{V_{j,t+1} - I_{j,t} + X_{j,t}}{1 + R_{j,t}} \quad (5)$$

This last equation forms the keystone of Miller and Modigliani's theory, as~~. Indeed, it goes without saying that~~ $D_{j,t}$ ~~does not appear anymore~~is absent from the final equation. ~~In addition~~Moreover, ~~not~~ all terms present in this equation ~~do not~~depend on ~~$D_{j,t}$~~it. ~~From this, i~~It logically follows that "the current value of the firm must be independent of the current dividend decision" (Miller & Modigliani, 1961, p. 414).

~~Along the same lines~~~~In a similar vein~~Similarly, Miller and Modigliani (1961) demonstrated that the firm's current value must also be independent ~~from~~of the future dividend decisions since future dividends may only affect $V_{j,t}$ through $V_{j,t+1}$. Nevertheless, by repeating the above

reasoning ~~hereinabove~~, $V_{j,t+1}$ is unaffected by firm j's dividend policy in $t+1$. ~~Hence~~Therefore, $V_{j,t}$ must be independent of firm j's dividend policy in $t+1$.

Miller and Modigliani (1961) ~~concluded~~~~made~~drew the following conclusion: "~~g~~iven a firm's investment policy, the dividend payout policy it chooses to follow will affect neither the current price of its shares nor the total return of the shareholders" (p. 414). ~~Rather~~In contrast, they maintain~~ed~~ that the value of a firm is determined solely ~~on the basis of~~based on its investment program~~,~~ and the consequent earnings~~,~~ and not "by how the fruits of the earnings are 'packaged' for distribution" (p. 414). ~~Miller and Modigliani~~They thus argue that dividend announcements ~~should~~ would not impact share prices~~,~~ and that investors should be indifferent ~~between~~towards any supposed distinctions between high and low dividend payouts.

1.1.2. Empirical evidence

Black and Scholes (1974) empirically tested ~~empirically~~ the influence that dividends have on share prices by investigating the relationship ~~existing~~between dividend yields and returns for a series of North American stocks. ~~It is worth pointing out that~~Notably, the goal of the research was not to study dividend irrelevance ~~as such,~~ but ~~rather~~ to test the undermentioned Brennan's (1970) tax effect thesis[1], ~~according to~~ which posits that higher dividends lead to a ~~lower~~ decrease in a firm's value and vice versa. Nevertheless, the results of Black and Scholes' investigation are presented in this section because they strongly validate dividend irrelevance.

Black and Scholes (1974) ~~used~~~~employed~~studied a sample ~~made up~~composed of every security listed on the New York Stock Exchange (NYSE) between 1926 and 1966~~, and employed~~by employing the following methodology. First~~ly~~, they constructed ~~twenty-five~~25 securities portfolios ~~of securities were constructed~~ based on their characteristics. ~~Namely~~Specifically, securities were ~~firstly~~ divided into five groups according to their dividend yields, and ~~before.~~ ~~Then,~~each group ~~has been~~was ~~split up~~further divided into five subgroups according to ~~the~~each security's ~~respective~~ beta. ~~As a result, twenty-five portfolios of securities were constructed. Afterwards, Black and Scholes~~~~they~~They then examined the impact of the portfolio's dividend yield on its price~~,~~ through the use of a regression model given by ~~E~~equation (6):

$$E(R_i) = R_f + \beta_i\big[E(R_M) - R_f\big] + \alpha_i\left(\frac{\delta_i - \delta_M}{\delta_M}\right) + \varepsilon_i \ (6)$$

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[1] See point 2.3 for more details about Brennan's (1970) model.

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~~Where~~ where $E(R_i)$ is the expected return on portfolio i, R_f is the risk-free rate, β_i is the beta of portfolio i, $E(R_M)$ is the market expected return, α_i is the dividend factor on portfolio i, (depicting the impact that dividend yield has on stock price), δ_i is the dividend yield on portfolio i, (defined as the sum of dividends paid during the previous year divided by the end-of-the-year price), δ_M is the market dividend yield, and ε_i is the regression error term.

The results of this regression, and ~~of~~ the associated statistical significance test, showed that α_i was not significantly different from zero for the ~~period going from~~ 1926 to 1966 period, ~~neither nor~~ or ~~for~~ any tested subperiod. Based on this observation, Black and Scholes (1974) concluded that: "a dollar of dividends has the same value as a dollar of capital gains in the market" (p. 38).