DIVIDEND POLICY IN SAUDI ARABIA

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ABSTRACT

We examine dividend policy in a unique environment in Saudi Arabia, where (1) firms distribute almost 100% of their profits in dividends, (2) firms are highly levered mainly through bank loans, and (3) there are no income or capital gains taxes. Some common factors that affect dividend policy of both financial and non-financial firms, we found some factors that affect only non-financial firms. In particular, the common factors are profitability, size, and business risk. Government ownership, lavergae, and age have a significant impact on the dividend policy of non-financial firms but no effect on financial firms. Our results also show that agency costs are not a critical driver of dividend policy of Saudi firms. We also find that the factors that influence the probability to pay dividends are the same factors that drive the amount of dividends paid for both financial and non-financial firms.

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INTRODUCTION

Although "a number of theories have been put forward in the literature to explain their pervasive presence, dividends remain one of the thorniest puzzles in corporate finance" (Allen, Bernardo, and Welch (2000, p.2499) .The question of "Why do corporations pay dividends?" has puzzled researchers for many years. Despite the extensive research devoted to solve the dividend puzzle, a complete understanding of the factors that influence dividend policy and the manner in which these factors interact is yet to be established. The fact that a major textbook such as Brealey and Myers (2003) lists dividends as one of the "Ten unresolved problems in finance" reinforces Black's (1976, p.5) statement "The harder we look at the dividend picture, the more it looks like a puzzle, with pieces that just don't fit together.

Other researchers made efforts to understand the dividend controversy. Among them, Brennan (1970 and 1973), Litzenberger and Ramaswamy (1979 and 1980) showed that it is not optimal for the investors to receive dividends if their marginal tax rate is greater than zero, and investors' after-tax expected rate of return (discount rate) depends on the dividend yield and systematic risk. Black and Scholes (1974) argued however that tax effect is not uniform for all investors, because different investors are subject to different tax rates depending on the level of their wealth and income. This leads to an idea that at least dividend might have some tax-induced effect on the share prices. Average investors, subject to their personal tax rates, would prefer to have less cash dividend if it is taxable: size of optimal dividend inversely related to personal income tax rates (Pye, 1972). Hence, stocks prices tend to decline after announcement of dividend increase. Recently Dhaliwal *et al* (2005) dividend yield has impact on the cost of equity of firms hence share value may be affected. However, we suggest that tax-induced dividend effect on share value should not exist in a non-tax economy like Saudi Arabia.

LITERATURE REVIEW

Several rationales for corporate dividend policy are proposed in the literature, but there is little consensus among researchers. Overall, the literature focuses on several strands of hypotheses of dividend policy. The seminal Miller-Modigliani's irrelevance theory supported and tested by Black and Scholes (1974), Miller and Scholes (1982), Miller (1986), Conroy et al. (2000), Baker and Farrelly reported contrary evidence (1988) and Baker et al. (2006). Black and Scholes (1974) found mixed results for the tax hypothesis, Litzenberger and Ramaswamy (1980), Miller and Scholes (1982), Poterba and summers (1984), Keim (1985), and Kalay and Michaely (2000)). The agency cost based hypothesis argues that dividend payout helps align the interest of managers and shareholders by reducing the free cash flow for use at the discretion of managers (Jensen and Meckling (1976), Rozeff (1982), Easterbrook (1984), Jensen (1986), Jensen et al. (1992), Lang and Litzenberger (1989), DeAngelo, DeAngelo and Stultz (2006)). While the literature is voluminous, and still evolving, the results continue to be inconclusive. In this context, Saudi Arabia is a unique case to revisit the dividend issue. In Saudi Arabia, there are no taxes on dividends and capital gains. The absence of taxes may provide a 'clinical' or uncluttered environment to re-examine the dividend puzzle.

Although literature tend to suggest that dividend *per-se* does not have any effect on shareholders' value, empirical studies showed mixed evidence, using the data from the US, Japan and Singapore markets. A number of studies found that stock price has a significant positive relationship with the dividend payment [Gordon (1959), Ogden (1994), Stevens and Jose (1989), Kato and Loewenstein (1995), Ariff and Finn (1986), and Lee (1995)], while others found a negative relationship [Loughlin (1989) and Easton and Sinclair (1989)]. A negative relationship between dividend announcement stock returns is expected due to tax effect, but researchers tended to relate the positive relationship between the stock returns and dividend announcement with the information effect of dividend. There are three main objectives of this paper which are, first, to identify the factors that determine the amount of dividends, second, to examine the decision to pay dividends, and third, to outline the potential differences in dividend policy between financial and non-financial firms.

There are many important motives for this study. First and foremost, Saudi firms distribute almost 100% of their profits in dividends which led the Capital Market Authority to issue a circular (number 12/2003) arguing that firms should retain some of their earnings for "rainy days". This practice provides an opportunity to examine the characteristics of firms that pay dividends. Second, the study will be conducted in a unique environment where there are no taxes on dividends and capital gains. Tax differentials are a major part of the dividend puzzle. Third, one explanation for paying dividends is to minimize agency problems. However, Saudi firms are highly levered through bank loans, which reduce the role of dividends in alleviating agency problem. Fourth, the determinants of dividend policy are controversial and there is no unanimity among researchers on the factors that affect dividend policy. This controversy motivates this research to provide some new evidence as to the factors that affect dividend policy. Fifth, most previous research excludes non-dividend paying firms which may create a selection bias (Kim and Maddala (1992), Deshmukh (2003), among others). We include non-dividend paying firms in our experimental design. Finally, there are some studies that report differences between dividend policy of financial and non-financial firms (Naceur, Goaied, and Belanes (2005)). We examine this issue for Saudi Arabia. Apart from the fact there has been no study of dividend policy in Saudi Arabia, this paper contributes additional evidence to contrast the dividend policies in emerging and developed markets.

Our research provides a number of interesting results on dividend policy. First, we show that there are common factors that affect the dividend policy of both financial and non-financial firms, and there are others that affect only non-financial firms. For example, there are six determinants of dividend policy for non-financial firms, while there are only three factors that affect the dividend policy of financial firms. The common factors are profitability, size, and business risk. Government ownership, leverage, and age have a strong influence on the dividend policy of non-financial firms but no effect on financial firms. On the other hand, agency costs, tangibility, and growth factors do not appear to have any impact on the dividend policy of both financial and non-financial firms.

Second, we find that the determinants of the decision to pay dividends are consistent with those reported for the determinants of dividend policy. In particular, we find that the factors that influence the probability of paying dividends are the same as those that determine the amount of dividends paid.
The remainder of the paper proceeds as follows. Section 2 briefly discusses the potential determinants of dividend policy and develops testable hypothesis. Section 3 describes the data, develops the regression specifications, presents summary statistics for the payment of dividends, and reports some descriptive statistics for the sample. Section 4 presents the results for the determinants of dividend policy. In section 5, we provide the results for the determinants of the likelihood to pay dividends. Section 6 concludes the paper.

FACTORS THAT INFLUENCE DIVIDEND POLICY

Based upon the determinants of corporate previously dividend policy theoretical identified by empirical studies and the availability of data from Saudi Arabian Monetary Agency (SAMA).

Profitability: Profits have regarded as the primary indicator of a firm's capacity to pay dividends. Since dividends usually paid from the annual profits, it is logical that profitable firms are able to pay more dividends. To examine whether the profitability of the firm influences its dividend policy, we use the ratio of earnings before interest and taxes to total assets as our surrogate for profitability. We expect to find a positive relationship between dividends and profitability.

Firm Size: Variables such as size have the potential to influence a firm's dividend policy. Larger firms have an advantageous position in the capital markets to raise external funds and are therefore less dependent on internal funds. Furthermore, larger firms have lower bankruptcy probabilities and therefore should be more likely to pay dividends. This implies an inverse relationship between the size of the firm and its dependence on internal financing. Hence, larger firms expected to pay more dividends. As a surrogate for firm size, we use the natural logarithm of sales.

Leverage: Leverage may affect a firm's capacity to pay dividends because firms that finance their business activities through borrowing commit themselves to fixed financial charges that include interest payments and the principal amount. Failure to make these payments by the due time subjects the firm to risk of liquidation and bankruptcy. Higher leverage might thus result in lower dividend payments. Furthermore, some debt covenants have restrictions on dividend distributions. Thus, we expect a negative relationship between dividends and leverage. We use the debt ratio as our proxy for leverage.

Agency Costs: The separation of ownership and control results in agency problems. Distributing dividends can reduce agency costs (Rozeff (1982), Easterbrook (1984), Jensen et al. (1992), among others). In this vein, dividends paid out to stockholders in order to prevent managers from building unnecessary empires to be used that are in their own interest. In addition, dividends reduce the size of internally generated funds available to managers, forcing them to go to the capital market to obtain external funds (Easterbrook (1984)). Furthermore, dividend payments used to reduce the free cash flow problem (Jensen (1986)).

As explained in Rozeff (1982), firms with a larger percentage of outside equity holdings are subject to higher agency costs. The more widely spread is the ownership structure, the more acute the free rider problem and the greater the need for outside monitoring. Hence, these firms should pay more dividends to control the impact of widespread ownership. Consequently, we expect to find a positive association between the number of shareholders and the agency problem. We use the logarithm of the number of shareholders to account for the dispersion of ownership, which used as a proxy for agency costs.

In the case of Saudi Arabia, where most firms are highly levered, banks play a pivotal financing role, and agency problems should be less severe. Jensen (1986) argues that debt could serve as a substitute for dividends in reducing agency problems. This should reduce the importance of dividends in alleviating agency problems.

Business Risk: Business risk is a potential factor that may affect dividend policy. High levels of business risk make the relationship between current and expected future profitability less certain. Consequently, firms with higher levels of business risk are expected lower dividend payments. Furthermore, Michel and Shaked (1986), Bar-Yosef and Huffman (1986), and others argue that the uncertainty of a firm's earnings may lead it to pay lower dividends because volatile earnings materially increase the risk of default. In addition, field studies using survey data (e.g., Lintner (1956), Brav et al. (2005)) report compelling evidence that risk can affect dividend policy. In these surveys, managers explicitly cite risk as a factor that influences their dividend choice. As a surrogate for business risk, we use the standard deviation of return on investment. We expect to find a negative relationship between dividends and business risk.

Ownership structure is an important factor that may influence a firm's dividend policy (Maury and Pajuste (2002)). Different types of owners have different preferences for dividends. For example, in family-controlled firms where managers are the owners there is less need for dividends to reduce agency conflicts. In contrast, firms with large government ownership may have greater agency problems, because, in firms where there is large government ownership, there is "*a double* principal-agent problem" (Gugler (2003, p.1301)). Dividend payments can help alleviate the agency problem in these firms. The above analysis implies a positive association between dividends and government ownership. To control for government ownership, we use a dummy variable, which is equal to one for firms where the government is the controlling shareholder, and zero otherwise. To identify the ultimate owner of the firm, we use a 10% threshold level of ownership. For instance, if the government owns 10% or more of a firm's shares, the firm considered government owned. This is the criteria used by the SAMA. La Porta et al. (1999), Faccio et al. (2001), Maury and Pajuste (2002) also use this approach, among others.

Maturity: Grullon et al. (2002) suggest that as firms mature they experience a contraction in their growth which results in a decline in their capital expenditures. Consequently, these firms have more free cash flow to pay as dividends. Similarly, Brav et al. (2005) suggest that more mature firms are more likely to pay dividends. In contrast, younger firms need to build up reserves to finance their growth opportunities requiring them to retain earnings. We use age as a proxy for a firm's maturity. We define age as the difference between the calendar year of the observation and the firm's year of incorporation reported in the "Share-Holding Guide of SAMA Listed Companies". We expect a positive association between dividends and the age of the firm.

Tangible asset: tangibility may have an effect on dividend policy because firms with high level of tangible assets can use these as collateral for debt (Booth et al. (2001)). Consequently, such firms tend to rely less on retained earnings implying that these firms can distributes more cash in dividends. This suggests a positive association between asset tangibility and dividends.

In contrast, Aivazian et al. (2003) find that firms operating in emerging markets with high levels of tangible assets tend to have lower dividends. This is because firms in emerging markets face more financial constraints when short-term bank financing is a major source of debt. Hence, firms with high levels of tangible assets will have fewer short-term assets that can be hold as collateral to obtain the necessary financing. In Saudi Arabia, firms are highly levered with short-term bank debt playing a pivotal role in financing. In this case, Aivazian et al. (2003) analysis implies that we should observe a negative association between dividends and tangibility. To test for the above hypothesis, we use the ratio of total assets minus current assets divided by total assets as a surrogate for tangibility. We predict a negative association between dividends and asset tangibility.

Growth Opportunities: Firms experiencing substantial success and rapid growth require large additions of capital. Consequently, growth firms expected to pursue lower dividend payout policies. Similarly, the pecking order theory predicts that firms with a high proportion of their market value accounted by growth opportunities should retain more earnings so that they can minimize the need to raise new equity capital. Free cash flow theory also predicts firms with high growth opportunities will have lower free cash flow and will pay lower dividends. To account for growth opportunities, we use the market-to-book ratio. We expect a negative relationship between dividends and growth opportunities.

DATA COLLECTION AND METHODOLOGY

The data for this study are obtained from SAMA which published by the Saudi Securities Market. The data set comprise all publicly traded firms listed at the SAMA. In the sample, firms come from all three sectors that comprise the SAMA namely, banks and investment sector, services sector, and industry sector. We split this sample into financial and non-financial firms. Financial firms include banks, leasing, and investment holdings while non-financial firms include poultry, fisheries, agriculture, oil, and manufacturing firms.

The number of firms included in the study changes from one year to another, with a range from 14 to 37 for financial firms and a range from 37 to 105 for non-financial firms. This results in a data set of an unbalanced panel containing 413 firm-year observations for financial firms and 1,057 firm-year observations for non-financial firms. The fact that we are using panel data gives "more informative data, more variability, less collinearity among the variables, more degrees of freedom and more efficiency" (Baltagi (2001, p.6)).

These data are time series cross-sectional variables, which collected over the entire life of the SAMA from 1989 to 2004. We checked the accuracy of the data by comparing the figures from the SAMA Guide with the data from the firm's financial statements available on the internet, whenever possible. The empirical literature on dividend policy has largely ignored firms that do not pay dividends. If value-maximizing firms choose not to pay dividends, a sample that contains only dividend paying firms will be subject to a selection bias. An econometric analysis of such a sample will yield biased and inconsistent estimates. To address this selection bias, we use both dividend paying and non-dividend paying firms. In this vein, Kim and Maddala (1992) demonstrate that it is important to allow for zero observations on dividends in the estimation of models of dividend behavior. Likewise, Deshmukh (2003, p.353) states "If firms find it optimal to not pay dividends, then their exclusion from any empirical analysis may create a selection bias in the sample, resulting in biased and inconsistent estimates of the underlying parameters".

Based on the previous description of our proxies for the potential factors that may affect dividend policy, we estimate the following model:

$$DIVYLD = \beta_0 + B_1 PROFIT + \beta_2 LOGS + \beta_3 DR + \beta_4 STOCK + \beta_5 DROI + \beta_6 GOVOWN$$

$$+ \beta_7 AGE + \beta_8 TANG + \beta_9 MB + \varepsilon \qquad (1)$$

Where:

DIVYLD = Dividend yield;

PROFIT = Ratio of earnings before interest and taxes to total assets;

LOGS = Log of sales;

DR = Ratio of total debt to total assets;

STOCK = Natural Log of the number of stockholders;

DROI = Standard deviation of return on investment;

GOVOWN = Dummy equal one if firm owned by government or its agencies and zero otherwise;

AGE = the difference between the current year of the observation and the year of incorporation;

TANG= Total assets minus current assets divided by total assets; and

MB = Ratio of a firm's market value of equity dividend by the book value of its assets.

We use dividend yield as the dependent variable. As a robustness check, we also employ the same measure of dividend policy used by Fama and French (2002), Aivazian et al. (2003), and Barclay et al. (2007), which is dividend-to-asset ratio. The distribution of dividends truncated with a zero dividend the lower bound. This necessitates the use of Tobit analysis, which is a robust method for dealing with a truncated distribution. Furthermore, in Saudi Arabia as well as in other countries, some firms do not pay dividends. Even those that pay dividends do not pay them continuously. This creates a censoring problem (Kim and Maddala (1992)) and requires the use of Tobit (Anderson (1986), Kim and Maddala (1992), and Huang (2001a, 2001b)). Tobit regression been used extensively in previous research (i.e., Kim and Maddala (1992), Barclay et al. (1995), Dickens et al. (2002), among others).

Payment of Dividends: Saudi firms tend to attract investors by distributing large dividends. Most of the profitable Saudi firms distribute dividends as a means of rewarding investors for holding their securities. Stock repurchase is a rare phenomenon in Saudi Arabia; however, some firms supplement their cash dividends distributions with stock dividends. In Saudi Arabia, most profitable companies distribute 100% of their profits as cash dividends. As with other Arab countries, Saudi investors seem to prefer to receive periodic income in the form of dividends (Bolbol and Omran (2004)). For the entire sample, Panel A of Table 1 shows that the average payout ratio is around 46%. When the zero dividend observations removed, the average payout ratio increases significantly to 122% (Panel B). This is considerably higher than the payout ratio reported by Fazzari, Hubbard, and Petersen (1988), Kaplan and Zingales (1997), and Aivazian et al. (2006) samples of US firms. Note also that the payout ratio for non-financial firms is higher than that for financial firms. The standard deviation of the payout ratio exhibits a similar pattern.

Table 2 indicates Saudi firms have an average dividend yield of 3.18%. However, it is worth noting that the dividend yield is calculated from a sample that contains both dividend paying and non-dividend paying firms which may underestimate it. The profitability of non-financial Saudi firms as reflected in the ratio of earnings before interest and taxes to total assets is around 11.37%.

The figures reported show that non-financial Saudi firms are highly levered with a debt ratio of around 63.80%. This is much higher than the debt ratio for most of the countries reported in Aivazian et al. (2003) including the U.S. However, business risk (standard deviation for return on investment) in Saudi Arabia is similar to the emerging countries reported in Aivazian et al. (2003). Table 2 provides summary statistics.

Table 1: Dividend Payout Ratio for Firms over the Period 1989-2004

Panel A: Dividend Payout Ratio for All firms						
Year	All		Financials		Non-Financials	
	Mean	StDev	Mean	StDev	Mean	StDev
1989	42%	44%	47%	30%	40%	48%
1990	66%	205%	94%	279%	36%	42%
1991	43%	43%	49%	47%	39%	41%
1992	47%	82%	32%	39%	55%	96%
1993	134%	701%	46%	35%	171%	837%
1994	52%	85%	45%	34%	56%	98%
1995	41%	55%	49%	49%	39%	58%
1996	39%	75%	37%	35%	40%	87%
1997	32%	46%	19%	30%	37%	51%
1998	29%	177%	20%	31%	32%	206%
1999	29%	162%	25%	59%	30%	186%
2000	63%	400%	24%	49%	76%	466%
2001	35%	181%	15%	30%	42%	209%
2002	49%	249%	33%	52%	54%	289%
2003	34%	142%	60%	142%	25%	141%
2004	57%	262%	58%	139%	56%	295%
Overall period	46%	182%	41%	67%	48%	197%
Observations	1514		437		1077	
Panel B: Dividend Payout Ratio for Dividend Paying Firms						
Year	All		Financials		Non-Financials	
	Mean	StDev	Mean	StDev	Mean	StDev
1989	70%	35%	60%	19%	76%	41%
1990	117%	263%	149%	343%	72%	30%
1991	71%	33%	80%	32%	66%	33%
1992	86%	94%	72%	18%	91%	111%
1993	225%	902%	65%	20%	312%	1121%
1994	90%	95%	62%	22%	106%	115%
1995	76%	54%	70%	44%	80%	60%
1996	73%	90%	58%	26%	81%	110%
1997	63%	48%	43%	32%	70%	51%
1998	159%	394%	55%	25%	281%	571%
1999	185%	378%	96%	81%	258%	504%
2000	256%	787%	70%	62%	371%	991%
2001	130%	333%	49%	37%	166%	396%
2002	122%	385%	55%	58%	166%	492%
2003	86%	218%	123%	187%	69%	232%
2004	151%	412%	138%	189%	157%	481%
Overall period	122%	283%	78%	75%	151%	334%
Observations	806		261		545	

This table presents the mean and the standard deviation for firms listed at the SAMA for each year from 1989-2004. The table also shows the mean and standard deviation for financial and non-financial firms during the same period. In panel A, we present the results for all firms including both dividend paying and non-paying firms. In panel B, we report the results for dividend paying firms.

Table 2: Descriptive Statistics for Sample Firms

Panel A: Non Financial Firms					
Variable	Mean	Median	Standard Deviation	Minimum	Maximum
DIVYLD	0.0318	0.0000	0.0779	0.0000	0.7565
DIV/TA	0.0226	0.0000	0.0423	0.0000	0.2903
PROFIT	0.1137	0.0647	0.2623	-1.2994	3.4059
LOGS	6.3180	6.3845	0.7677	2.6532	8.5063
DR	0.6380	0.5641	0.5975	0.0003	8.1240
STOCKS	2.5045	2.4829	0.5877	0.6990	4.4273
DROI	0.0599	0.0208	0.1315	0.0000	1.5080
GOVOWN	0.1608	0.0000	0.3676	0.0000	1.0000
AGE	9.7133	8.0000	7.1324	0.0000	30.0000
TANG	0.3591	0.2816	0.4415	0.0000	0.9521
MB	1.5475	1.2844	4.2188	-33.2831	49.2872
Panel B: Financial Firms					
Variable	Mean	Median	Standard Deviation	Minimum	Maximum
DIVYLD	0.0339	0.0000	0.0582	0.0000	0.6940
DIV/TA	0.0178	0.0000	0.0296	0.0000	0.1694
PROFIT	0.0519	0.0450	0.2299	-1.1177	3.1833
LOGS	6.3609	6.4294	0.8510	2.5855	8.0593
DR	0.6266	0.5982	0.8276	0.0010	9.1872
STOCKS	2.7932	2.8633	0.5521	1.1139	4.4760
DROI	0.0769	0.0134	0.2837	0.0000	5.0525
GOVOWN	0.1501	0.0000	0.3576	0.0000	1.0000
AGE	9.4165	7.0000	7.1388	0.0000	31.0000
TANG	0.0365	0.0033	0.1316	0.0000	0.9273
MB	1.4082	1.0848	2.3499	-14.7437	31.3345

The table presents descriptive statistics for all financial and non-financial firms listed at the SAMA for the years 1989-2004. The observations are 1057. The variables are dividend yield (DIVYLD), dividend-to-asset ratio (DIV/TA), profitability (PROFIT), firm size (LOGS), leverage (DR), agency costs (STOCKS), business risk (DROI), government ownership (GOVOWN), maturity of the firm (AGE), tangibility (TANG), and growth opportunities (MB).

The table also describes the sample for financial firms. The figures reported show that the dividend yield is slightly higher for financial firms with a value of 3.39%. Similarly, the standard deviation of return on investment is larger for financial firms. However, government ownership in financial firms is smaller than that for non-financial firms. Likewise, the profitability and growth of financial firms is less than that for non-financial firms. The results also show that financial firms are highly levered with a debt ratio of 62.66% is similar to that reported for non-financial firms (Tables 3 and 4).

There are some notable differences to those reported for non-financial firms. For instance, most financial firms distribute dividends. The percentage of financial firms that pay dividends (62%) is higher than that for non-financial firms (50%). The lowest percentage of paying dividends non-financial firms occur in 1998, the lowest for financial firms occur in 1992. The highest percentage occurs in 2003.

We employed a Tobit regression to examine the determinants of dividends policy using dividend yield as the dependent variable. As a robustness check, we re-estimated our Tobit model using the ratio of the aggregate dividend to total assets instead of the dividend yield. The results are insensitive to this measure of dividend policy. To further check the robustness of our results, we also estimate a random effects Tobit regression. The results are qualitatively similar to those obtained using Tobit regression.

Table 3: Number and Fraction of Firms Paying and not Paying Dividends

Panel A: Non-Financial Firms					
Year	No Dividend	Percentage	Dividend	Percentage	Total
1989	16	0.4848	17	0.5152	33
1990	16	0.5000	16	0.5000	32
1991	14	0.4118	20	0.5882	34
1992	14	0.4000	21	0.6000	35
1993	18	0.4500	22	0.5500	40
1994	21	0.4773	23	0.5227	44
1995	29	0.5179	27	0.4821	56
1996	30	0.5085	29	0.4915	59
1997	23	0.3651	40	0.6349	63
1998	60	0.6522	32	0.3478	92
1999	60	0.6000	40	0.4000	100
2000	59	0.5900	41	0.4100	100
2001	51	0.5313	45	0.4688	96
2002	50	0.5319	44	0.4681	94
2003	35	0.3846	56	0.6154	91
2004	30	0.3409	58	0.6591	88
Observations	526		531		1057
Panel B: Financial Firms					
Year	No Dividend	Percentage	Dividend	Percentage	Total
1989	3	0.2143	11	0.7857	14
1990	5	0.2941	12	0.7059	17
1991	7	0.3889	11	0.6111	18
1992	10	0.5556	8	0.4444	18
1993	5	0.2941	12	0.7059	17
1994	5	0.2778	13	0.7222	18
1995	6	0.2727	16	0.7273	22
1996	10	0.3846	16	0.6154	26
1997	13	0.4643	15	0.5357	28
1998	12	0.3529	22	0.6471	34
1999	15	0.4054	22	0.5946	37
2000	17	0.4857	18	0.5143	35
2001	18	0.5294	16	0.4706	34
2002	8	0.2424	25	0.7576	33
2003	6	0.2000	24	0.8000	30
2004	16	0.5000	16	0.5000	32
Observations	156		257		413

The table reports summary statistics on cash dividends for non-financial and financial firms for each year from 1989-2004. In most cases, the number of non-financial firms that pay cash dividends changes from one year to the next with the highest number of firms paying cash dividends in 2004 and the lowest in 1990. Overall, around 50% of the firm-year observations have zero dividends

Table 5 reports the results for the factors that explain dividend policy for the non-financial firms. We find that all of the variables are statistically significant except for agency costs, tangibility, and growth factors. Profitable firms hypothesized to be more able to pay dividends. Our results are in line with our hypothesis. In particular, the coefficients on profitability (*PROFIT*) are positive and statistically significant at the one percent level whether we use dividend yield or dividend-to-asset ratio. Larger firms have easier access to capital markets and face lower transaction costs compared to smaller firms. Accordingly, we hypothesized a positive relationship between dividends and size. Our results are consistent with this prediction. Highly levered firms depend on external financing largely than those with lower leverage ratios, because leverage produces fixed charge requirements. Consequently, levered firms should pay fewer dividends. As predicted, the coefficients on leverage (*DR*) are negative and statistically significant at the one percent level (Table 5).

Table 4: Tobit Regression for the Determinants of Dividend Policy for Non-Financial and Financial Firms

Panel A **Variable**	**Dividend Yield**		**Dividend-to-Asset Ratio**	
	Coefficient	**T-Statistic**	**Coefficient**	**T-Statistic**
C	-0.5147***	-7.8937	-0.2648***	-7.8420
PROFIT	0.1128***	2.7588	0.0947***	4.5006
LOGS	0.0898***	7.8297	0.0434***	7.3029
DR	-0.0823***	-3.9707	-0.0677***	-5.9694
STOCKS	-0.0338	-1.4866	-0.0052	-0.8543
DROI	-0.4370***	-4.6890	-0.2529***	-5.2399
GOVOWN	0.0008**	2.0981	0.0003*	1.6406
AGE	0.0016*	1.7280	0.0015***	3.1758
TANG	-0.0199	-1.2222	-0.0116	-1.3573
MB	-0.0008	-0.4706	0.0010	1.2529
No of Observations		1,057		1,057
Log Likelihood		-102.8745		123.5742
Wald Test [χ^2 (9)][a]		214.3100		291.7900
P-value		0.0000		0.0000
Panel B: Financial Firms **Variable**	**Dividend Yield**		**Dividend-to-Asset Ratio**	
	Coefficient	**T-Statistic**	**Coefficient**	**T-Statistic**
C	-0.2621***	-4.8914	-0.1003***	-3.3994
PROFIT	0.1958***	3.3637	0.2004***	5.6068
LOGS	0.0446***	4.5957	0.0191***	3.6007
DR	-0.0035	-0.5396	0.0002	0.0459
STOCKS	-0.0110	-0.9763	-0.0090	-1.4456
DROI	-0.2298***	-2.8843	-0.1384***	-3.0355
GOVOWN	0.0001	0.2748	-0.0001	-0.3533
AGE	0.0009	1.0127	-0.0006	-1.2642
TANG	-0.0733	-1.3227	-0.0449	-1.4645
MB	-0.0009	-0.3848	0.0027	1.2238
No of Observations		413		413
Log Likelihood		75.8372		158.1734
Wald Test [χ^2 (9)][a]		97.0100		101.2400
P-value		0.0000		0.0000

*The table shows estimated Tobit regressions for all non-financial and financial firms listed at the MSM during 1989-2004. The dependent variables are the dividend yield and the dividend-to-asset ratio. The explanatory variables are the profitability (PROFIT), firm size (LOGS), leverage (DR); agency costs (STOCKS), business risk (DROI), government ownership (GOVOWN), maturity of the firm (AGE), tangibility (TANG), and growth opportunities (MB). The table shows the variable, their coefficients, and their corresponding t-statistics.**, **, and *** represents significance at the 10, 5, 1 percent levels, respectively. [a] the number in parenthesis is the degrees of freedom.

Mature firms experience a contraction in their growth that may result in a decline in capital expenditure. As a result, these firms should have more free cash flow to pay in dividends. Hence, we should observe a positive association between dividends and maturity. Consistent with our predictions, the coefficients for age are positive and significant. Panel B shows results for the factors that influence dividend policy of financial firms. There are three significant determinants of dividend policy of financial firms, these being profitability, size, and business risk. Other factors such as leverage, agency costs, government ownership, age, tangibility, and growth do not have any significant impact on dividend policy of financial firms. The three significant factors have the hypothesized signs.

Table 5: Probit Regressions to Explain Which Non-Financial and financial Firms Pay Dividends

Variable	Coefficient	T-Statistic
C	-4.0045***	-8.9004
PROFIT	0.7110**	2.5546
LOGS	0.6858***	8.5343
DR	-0.9218***	-6.0088
STOCKS	-0.1319	-1.5297
DROI	-3.6518***	-5.4014
GOVOWN	0.0054*	1.7301
AGE	0.0222***	3.3317
TANG	-0.1523	-1.3056
MB	-0.0003	-0.0234
No of Observations	1,057	
Log Likelihood	-537.3487	
Wald Test [χ^2 (9)][a]	295.300	
P-value	0.000	
Panel B		
Variable	**Coefficient**	**T-Statistic**
C	-2.6748***	-4.1903
PROFIT	2.2372***	3.4718
LOGS	0.5411***	4.6679
DR	0.0644	0.6742
STOCKS	-0.2596	-1.5432
DROI	-2.2082***	-2.6152
GOVOWN	0.0087	1.1521
AGE	-0.0055	-0.4975
TANG	-0.9364	-1.4410
No of Observations	413	
Log Likelihood	-238.5700	
Wald Test [χ^2 (9)][a]	95.5700	
P-value	0.000	

Table 5 show the estimate regressions for all non-financial firms listed at the SAMA during 1989-2004. The dependent variable is a binary variable that equals to one if the firm pays dividends and zero otherwise. The explanatory variables are the profitability (PROFIT), firm size (LOGS), leverage (DR); agency costs (STOCKS), business risk (DROI), government ownership (GOVOWN), maturity of the firm (AGE), tangibility (TANG), and growth opportunities (MB). The table shows the variable, their coefficients, and their corresponding t-statistics. *, **, and *** represents significance at the 10, 5, 1 percent levels, respectively.[a] the number in parenthesis is the degrees of freedom.

We examine the likelihood that a firm will pay dividends. In order to do so we estimate probit regressions, where the dependent variable is binary variable equal to one if the firm pays dividends and zero otherwise. As regressor, we employed the same variables as described above. Our results for the determinants of the decision to pay dividends are consistent with those reported for the determinants of dividend policy. In particular, we find that the factors that influence the probability to pay dividends are the same factors that determine the amount of dividends paid. As a robustness check, we also estimated a random effects probit regression and find similar results to those obtained using probit regression.

Non-Financial Firms

The results presented in Panel shows that all the factors considered for examination are significant except for agency costs, tangibility, and growth. We previously find six factors that influencing the amount of dividends paid which are the same factors that affect the likelihood to pay dividends. For example, the coefficient on size is significant at all reasonable levels with a positive sign indicating that larger firms are more likely to pay dividends. Likewise, factors including profitability, government ownership, and age are all significant with a positive sign. On the other hand, risky firms and firms with high debt ratios are less likely to pay dividends.

Financial Firms

We estimated the probit model of the likelihood to pay dividends on our sample of financial firms. The results presented in Table 9 shows that profitability, size, and business risk are three factors that influence the likelihood to pay dividends, i.e.,. These factors are the same as the one reported for the determinants of the amount of dividends. The coefficients on leverage, agency costs, government ownership, age, tangibility, and growth variables are not statistically significant.

We estimated probit regressions for all financial firms listed at the SAMA during 1989-2004. The dependent variable is a binary variable that equals to one if the firm pays dividends and zero otherwise. The explanatory variables are the profitability (PROFIT), firm size (LOGS), leverage (DR); agency costs (STOCKS), business risk (DROI), government ownership (GOVOWN), maturity of the firm (AGE), tangibility (TANG), and growth opportunities (MB). The table shows the variable, their coefficients, and their corresponding *t*-statistics. [A] the number in parenthesis is the degrees of freedom.

A comparison between the factors that influence the probability of paying dividends in the financial and non-financial firms reveal that there are three common factors. These factors are profitability, size, and business risk. Leverage, government ownership, and age have a strong impact on the decision to pay dividends for non-financial firms and no effect on financial firms. On the other hand, agency costs, tangibility, and growth do not appear to have any impact on both financial and non-financial firms. As mentioned previously, the fact that we find agency cost is not important driver of Saudi firm's dividend policy is not surprising since Omani firms have high bank loans, which reduce the role of dividends in alleviating agency problems. In sum, the factors that influence the amounts of dividends are the same factors that drive the decision to pay dividends for both financial and non-financial firms.

CONCLUSION

We investigated dividend policy in a unique environment where firms distribute almost 100% of their profits in dividends and firms are highly levered. We used a panel data on a sample of Saudi firms and take account of the zero observations using Tobit and Probit models. Our study has three main objectives, namely (1) to identify the factors that determine the amount of dividends, (2) to examine the likelihood that firm's pay dividends, and (3) to outline the potential differences in dividend policy between financial and non-financial firms.

Our results show that there are some common both financial and non-financial have common factors that determine dividend policy, and there are other factors affect dividends policy for non-financial firms only. Specifically, there are six determinants of dividend policy for non-financial firms, while there are only three factors that influence the dividend policy of financial firms. The common factors are profitability, size, and business risk. Government ownership, leverage, and age have a strong impact on the dividend policy of non-financial firms but no effect on financial firms. Agency costs, tangibility, and growth do not appear to have any effect on the dividend policy of either financial or non-financial firms. The fact that agency costs is not an important determinant of dividend policy is not surprising given that Saudi firms are highly levered via bank debt where the role of dividends in alleviating the agency problems is less important. Our findings for the determinants of the decision to pay dividends are consistent with those reported for the determinants of dividend policy. In particular, we find that the factors that influence the probability to pay dividends are the same factors that drive the amount of dividends paid.

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