Empirical Examination of the Determinants of Dividend Payout of Quoted Agro based Firms in Nigeria

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Abstract
This study examines the factors affecting dividend payout of quoted agro-based firms in Nigeria. Data sourced from a sample of 15 agro-based firms for the period 2007-2013 were analyzed using the modified Litner’s model base on Ordinary Least Squares (OLS). Data were first examined for stationarity using the Augmented Dickey Fuller (ADF) test. Result revealed that all the variables were stationary at levels except leverage, liquidity and retained earnings that were stationary at first difference. The OLS result showed that previous dividend, profitability and firm size exerted significant positive influence on dividend payout while firm leverage and business risk exerted significant negative influence on dividend payout. Surprisingly, firm liquidity, Taxes and Retained Earnings failed to explain the variation in dividend payout of these firms. This, therefore, suggest the need to pursue policies that would minimize investment in risky projects, foster dividend payment through the reduction in retained earnings and enhancing firm’s profitability through tax reduction, exemption and rebate as well as discouraging excessive leverage as the way out.

Keywords: Agro-based firms, Dividend payout and liquidity.
JEL Code: N5, G33
I. Introduction
Following the inability of formal financial Institution to meet the credit requirement of businesses (Juma, 2007; Adenuga and Akpan,2007 and Bassey et al. 2014a), agro financial managers have to grapple with the task of raising capital to finance their investment opportunities. Because of the small and undeveloped nature of our capital market compared with other emerging stock markets of the developed world, investors have to evolve vibrant strategies to enhance their share price in the floor so as to attract investors. One of such strategies is the prompt and periodic payment of dividend to investors. Dividend yield forms part of agro firm’s investment objectives. Investment objective entails the reason for venturing into a business. With respect to shares subscription, investors either buy shares for capital gains, bonuses, right issue or for dividend yield. Capital gains implies trading on shares; it refers to a situation where shares are bought during periods of low prices termed “bull” and sold during periods of high prices called “bull” presumably to take advantage of the price appreciation. Bonuses refer to extra shares given to shareholders as reward for investing in the firm. They are often given base on ratios. For instance, a bonus share of 1:4 implies that the firm is giving one extra shares to every four shares previously owned by a shareholder. Right issues on the other hand imply additional shares sold to shareholders at concessionary prices for being loyal shareholders of the firm. Dividend refers to earning distributed to shareholders at the end of the production year. It is often paid from corporate profit rather than firm’s capital. Section 385 of CAMA 1990 prevents firms from paying dividend from capital. Dividend paid from capital is termed liquidating dividend and is paid during liquidation or “winding up” process.

Dividend payment can either be interim or final. Interim dividends are paid before the final dividend. However, whenever firms initiate dividend payment or choose to retain earnings, the firm invariably changes the firm corporate policy. Dividend policy refers to the allocation of corporate profit between dividend payment and retained earnings. It implies the payout policy that management adopts in deciding pattern of cash distribution to shareholders over time (Bassey et al. 2014b). It differs from dividend payout ratio which shows the percentage of firm’s earnings that are paid to shareholders in cash. This decision is capable of having a short or long-term effects on the share price and volume of firm shares ( Michaely et al.,1995). As a result, managers avoid changes in dividend that would be reversed in future (Litter, 1956), as this is capable of eroding investors’ confidence in the firm. Hence, any optimal dividend policy should be tailored towards the maximization of shareholder’s wealth. The study of dividend policy is important because, apart from affecting the firm’s capital structure and changing its stock value (Nikolaos,2005), announcement of dividend signals investors about the firms efficiency in terms of profitability, liquidity and investment opportunities (Alli, et al., 1993). Also, dividend policy serves as a guide to prospective investors wishing to subscribe in firm’s shares. Nonpayment of dividend is often an indication that the firm is close to bankruptcy or financial distress. The importance of dividend to shareholders can better be appreciated when there is dividend announcement by firms. Studies such as Olowe (1998) and Michaely et al.(1995) reported positive relationship between dividend announcement and share price increase. Most times the amount to be paid as dividend is often times regulated. For instance, in Nigeria, several legal regulations exist to guide dividend payment. As reviewed by Oseghue et al. (2014), in Nigeria, payment of dividend in excess of 30 percent was prohibited in 1976/77 fiscal year, the ceiling was lifted in 1978/79 raising dividend from 30 percent to 40 percent and was further raised to 50 percent in 1979/80. Also, section 17 of the bank and other Financial Institution Act (BOFIA) (1991) requires banks to maintain a reserve fund of not less than 30 percent of the Profit after Tax if the statutory reserve is less than the paid up capital or reserve fund of not less than 15 percent of the Profit after Tax if the statutory reserve is more than the paid up capital of the bank. Also, section 17 of BOFIA further placed a restriction on dividend payment by banks except all organization’s expenses, brokerage and capital expenses are paid as at when due as well as adherence to other Central bank of Nigeria’s guidelines. With respect to the non-banking subsector, Section 39 of Company and Allied Matters Act (CAMA), (1990) prevents firms from paying dividend except such firms is sure of meeting their liabilities as they become due.

Amid the aforementioned regulatory provisions and the high importance attached to dividend by agro firm’s shareholders, most profitable agro-based firms do not pay tangible dividend despite the huge profits declared every year. A careful look at Table1 which presents the non-dividend payment attitude of selected agro-based firms in Nigeria between 2005-2014 revealed that apart from Cadbury and Multi- Trex Integrated that paid dividend of 130 and 3 kobo in 2005 and 2008 respectively, other firms did not pay any dividend to shareholders within the period under review in spite of the huge profit declared by most of these firms. This is an indication that these firms prefer to retain their net earnings. This also furthers evidence of the conservative nature and the non-dividend payment behavior of most Nigerian firms as reported by Bassey et al. (2014b). Therefore, in recognition of the crucial importance of dividend to shareholders and its implication on firm’s performances, this study analyses the various
determinants of dividend payout of quoted agro-based firms in Nigeria. A cash dividend payment model would be constructed that would help to explain and predict their dividend payment behavior.

### Table 1: Non-dividend Payment Attitude of Selected quoted Agro-based firms in Nigeria 2005-2014 (Kobo)

<table>
<thead>
<tr>
<th>Firm/Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi Trex Int.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Livestock Feeds</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cadbury</td>
<td>130</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Champ. Brew.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Big treat</td>
<td>y</td>
<td>y</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Okitipupa</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ellah Lakes Plc</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>P.S. Madrides</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FTN Cocoa</td>
<td>y</td>
<td>y</td>
<td>y</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Afprint</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tantilizer</td>
<td>y</td>
<td>y</td>
<td>y</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: y signifies not listed; 0 signifies non payment

**Sources:** Author’s computation using Nigerian Stock Exchange Fact Books and Annual Statement of Accounts of these firms

### II Theories of dividend policy

Three basic theories are often used to explain the dividend payment behavior of firms. These are; the traditional theory of dividend, the residual theory of dividend and the Modigliani and Miller irrelevant dividend hypothesis.

#### II.I The traditional theory of dividend

This theory was developed by John B. Williams in 1938. According to the theory, the value of ordinary share is the discounted present value of the future dividend yield or stream. It also implies that the value of the firm’s shares can either be increase by increasing dividend payment or reducing the discount rate use by the market to capitalize the dividend yield.

\[
P = \left(1 + K_e\right)^{-1} \sum_{t=1}^{D} \left(1 + K_o\right)^t \left(1 + K_e\right)^t D_t
\]

Where \( D_t \) is the cash dividend at the end of period \( t \)

\( K_e \) is the investor’s required return otherwise called the capitalization rate for the equity investment and

\( P \) is the piece of share

#### II.II The Residual Theory of Dividend

This theory was developed by Weston in 1977 and view dividend payment as a ‘residual’ or ‘passive’ decision. It posits that dividends are usually paid after exhausting all internal investment opportunities. The theory is based on the assumption of a given investment decision and that of perfect capital market. While the former believes that the only determinant of dividend is the present investment of the firm at the expense of any external finance, the later implies that dividend policy does not affect the rate of return required by investors on their equity.

#### II.III The Modigliani and Miller Dividend irrelevant Hypothesis

This was developed by Modigliani and Miller in 1961. According to M & M, dividend payment pattern has no effect on the value of the firm. They posited that the present value of future dividend remains unchanged in spite of any change in the dividend policy. To M & M, the sole determinants of firm’s value is the earning power of their asset or its investment policy and that the way in which the stream of earning is shared between dividend and retained earnings has no effect on firm’s value. However, this theory has come under series of criticism due to what researchers termed certain unrealistic assumptions.
III Empirical Literature on the Determinants of Dividend Payout
Following from the above theoretical background, numerous studies have identified certain firm specific and non-specific factors that determine cash dividend payout. Bassey et al. (2014) grouped these factors into internal and external factors. In his view, while internal factors are firm specific and embraces variables like profitability, liquidity, investment opportunities and stage of growth, external factors include government policies, technology, stability of earnings, willingness to dilute ownership, nature of shareholders, dividend payout of rival firms and restriction on debt contracts.

III.I Dividend policy and business risk
Empirical studies from D’ Souza (1999), and Llyod (1985) reported that firm with larger level of market risk is associated with low dividend payment. Study by Al-Kuwari (2009) posits that firms with high systemic risk are characterized by volatility of current and expected profit. This invariably reduces the liquidity position of firms and impact negatively on their dividend payment behavior.

III.II Dividend policy and Firm’s Profitability
One vital determinants of dividend payout identified in the literature is profitability. Studies such as Fama and French (2001), Jensen et al (1992) and Litner (1956) reported that dividend policy is influence by current earning and previous year earning. Others are Al-Kuwari,(2009), Osuala (2005) and Bassey et al (2014).

III.III Dividend and Firm’s Liquidity
The cash flow position of the firm to some extent determines the nature of firm’s investment as well as the dividend payment pattern. This is true because dividend payment implies huge cash flows. Studies by Mollah et al (2002) support a positive relationship between liquidity and dividend payout.

III.IV Dividend payment and Financial leverage
Firm with huge financial indebtedness has been found to be associated with low dividend payout. Since debt and its associated interest is often deducted from corporate profit before dividend are declared, a negative relationship between leverage and dividend is expected. Studies such as Al-Kuwari (2009) and Faccio and Lang (2001) support this negative relationship.

IV Related Studies on Dividend policy in Nigeria
Since the Pioneering work of Litner on dividend policy in Nigeria, several studies have been done some incorporating other variables that were not used by Litner. Litner (1956) developed a cash dividend model using a sample of 28 large Corporation in United States. From his findings, lagged dividend and current earnings were found to the major determinants of dividend policy.

Following Liner’s work, Uzoaga and Alozieuwa (1974) studied the pattern of payment in a sample of 52 companies during the indigenization period. They noticed that the rate of dividend payout by almost all the companies during the period preceding indigenization was uniformly high and liberal. From their findings, they found very minimal evidence in support of the classical influences that determine dividend policy during this period. They went on to conclude that fear by foreigners that Nigerians would reap heavily from their (foreign firms) companies force Directors of these foreign companies to distribute both retained and current earnings without regard to previous rate of dividend paid.

Osegbue et al (2014) analyzed the relationship between dividend payment and Corporate performance in the Nigerian banking industry using panel data for the period 1990-2010. His finding revealed no significant difference between dividend payment and the explanatory variables measured by free cash flow, current profitability, financial leverage, business risk and tax paid on dividend payment ratio.


Bassey, et al. (2014b) employed the modified Litner’s model to examined the various determinants of dividend payout of two Commercial Banks in Nigeria using secondary data collected from 1989-2010. The findings revealed that while current earnings, lagged dividend and lending rate were the major determinants of cash dividend payout in these banks, Inflation rate and liquidity ratio failed to explain the variation in dividend payout. Also, these banks
had a lower Average Marginal Propensity (AMP) to pay out of current earnings of 30.67%. This implies a profit retention of 69.33% during the period, indicating the conservative nature of management of these banks.

V METHODOLOGY
V.I Data Collection
Secondary data collected from a sample of fifteen agro-based firms that has been listed in the Nigeria Stock Exchange for the period 2007-2013 was used for the study. Data were obtained from the Nigerian Stock Exchange Fact Book and Annual Statements of Accounts of the sampled firms. To be included among the chosen firms, such firm must have been registered in the Nigerian Stock Exchange before 2007 and had had been paying dividend to shareholders. The selected firms were; UAC of Nigeria Plc, Nigerian Breweries, Guiness Nigeria Plc, Nestle Food Plc, Flour Mills Plc, 7UP Plc, International Breweries, Ellah Lakes Plc, PZ Cussons, Okumu Oil Plc, Presco Nigeria Plc, Ferdinand Oil Mill Plc, Unilever Plc, Dangote Flour, Dangote Sugar Plc and Honey Well Flour respectively.

V.II Model Specification
Data were analyzed using the Ordinary Least Square (OLS) regression technique in line with Litner (1956) model. The original Litner’s model was specified thus:

$$D_{it} = a + bD_{i(t-1)} + U_{it}$$

(2)

Where:
- $i$ = the subscript identifying the individual company
- $D_{it}$ = cash dividend paid by individual firm at time $t$ on equity shares
- $a$ = the constant term
- $P_{it}$ = net profit for the current period $t$ for the individual firm
- $U_{it}$ = Stochastic error term
- $b$ = short term marginal propensity to distribute out of current earnings
- $C=cr$
- $C$= adjustment rate, $r$ = target payout ratio and $d = 1$

The modified form of the Litner’s model that was used for the study is stated econometrically as;

$$D_{it} = b_0 + b_1D_{it}^{(-1)} + b_2PRF_{it} + b_3LEV_{it} + b_4FLT_{it} + b_5FRSK_{it} + b_6FSZ_{it} + b_7TAX_{it} + b_8RE_{it} + U_{it}$$

(3)

Where
- $DIV_{it}$ = cash dividend payable as a proportion of operating income for firm $i$ in time $t$ measured as the ratio of dividend to total income available to shareholders. It is taken here to imply only cash and not stock.
- $DIV_{it}^{(-1)}$ = Cash dividend per share in preceding year;
- $PRF_{it}$ = profitability of firm $i$ in time $t$ measured as the ratio of Earning before interest and tax to total assets;
- $LEV_{it}$ = leverage of firm $i$ in time $t$ measured as the ratio of total debt to total equity of the firm;
- $FLT_{it}$ = liquidity ratio of firm $i$ in time $t$ measured as the ratio of current asset to current liability;
- $FRSK_{it}$ = Business risk of firm $i$ in time $t$ measured as absolute coefficient of variation in profit;
- $FSZ_{it}$ = size of firm $i$ in period $t$ measured as the natural logarithm of total asset of firm;
- $TAX_{it}$ = tax paid by firm $i$ in time $t$ measured as the ratio of tax to operating income;
- $RE_{it}$ = retained earnings of firm $i$ in time $t$ measured as the ratio of retained earnings to total Income;
- $b_1, b_2$ are the coefficients of the parameters to be estimated;
- $U_{it}$ is the Stochastic error term;
- $B_1$ is the marginal propensity to pay out of current earnings.

V.II Estimation Procedure
Analysis was carried out using Econometric software (E-View 7.1). The estimation procedure employed was (i). Unit root test:

In order to avoid having a spurious regression result that is often associated with time series data (Maddala, 2002, Engle and Granger, 1987), a unit root test (test for stationarity) was carried out using the Augmented Dickey Fuller (ADF) test. The ADF test minimizes autocorrelation in the error term since it involves the first difference in lags and captures additional dynamics left out by the DF thereby ensuring that the error term is distributed as white noise. The test formula for ADF is shown as:
\[
\Delta Y_t = \alpha + \rho Y_t - 1 + \sum_{j=1}^{j} \Delta Y_t - j + U_t \ldots \tag{4}
\]

Here the lag length \( j \) chosen for ADF ensure \( U_t \) is empirical white noise. The significance of \( \rho \) is tested against the null that \( \rho = 0 \) based on the t statistics obtained from the OLS estimated in equation (3). If the null hypothesis of non stationarity cannot be rejected, the variables are difference till they become stationary, that is, till the existence of a unit root is rejected. The next step was to carry out a granger causality test, the procedure which is discussed below.

VI. Findings and Discussion

VII Result of Unit Root Test

Table 2 presents the Augmented Dickey Fuller (ADF) unit root test for the variables use in the regression analysis as defined in equation (3). The result shows that the following variables were stationary at levels: Dividend, lagged dividend, Profitability, Business Risk, Tax and Firm size. On the other hand, Leverage, Firm liquidity and Retained earnings were non stationary at levels but became stationary at first difference.

<table>
<thead>
<tr>
<th>Logged Variable</th>
<th>Augmented Dickey- Fuller</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
</tr>
<tr>
<td>Dividend (DIV(_a))</td>
<td>-6.516**</td>
</tr>
<tr>
<td>Lagged Dividend (DIV(_{a+1}))</td>
<td>-2.054</td>
</tr>
<tr>
<td>Profitability (PRF(_a))</td>
<td>-4.663</td>
</tr>
<tr>
<td>Leverage (LEV(_a))</td>
<td>-2.149</td>
</tr>
<tr>
<td>Liquidity (FLT(_a))</td>
<td>-1.763</td>
</tr>
<tr>
<td>Firm Risk (FRSK(_a))</td>
<td>-3.950</td>
</tr>
<tr>
<td>Tax ( TAX(_a))</td>
<td>-4.368</td>
</tr>
<tr>
<td>Firm Size (FSZ(_a))</td>
<td>-5.114</td>
</tr>
<tr>
<td>Retained Earnings (RE(_a))</td>
<td>-3.052</td>
</tr>
</tbody>
</table>

Note: At levels, critical value at 5% = -3.51 at 1% = -4.21, at first difference, Critical value at 5% = -3.54 and at 1% = -4.22. Asterisk * and ** represent 5% and 1% respectively; Variables are as defined in equation (3)

VII. Testing for the short and Long-run Relationship

After ascertaining the stationarity of the variables, an attempt was made to carry out a cointegration test and estimate the error correction model but this was not possible because of the small number of observation, so we proceeded to carry out the Ordinary Least Square (OLS) regression analysis, the result which is reported as follows.

VII. Regression estimates for the determinants of dividend payout

Table 3 presents the regression result for the determinants of dividend payout of agro-based firms in Nigeria. Result revealed \( R^2 \) value of 0.7446, indicating that about 74.46 percent of the variability in dividend payout is explained by the explanatory variables in the model. The calculated F statistics of 26.46 which was significant at the 1 percent level of probability denotes the goodness of fit of the estimated model. The Durbin Watson statistics of 2.32 indicates the absence of auto correlation in the model. The normality (11.34**) and the RESET (4.113**) results were significant, indicating that the Ordinary Least Square was appropriate. This further confirms that the functional form is not mis-specified.

The coefficient for profitability (PRF\(_a\)) and lagged dividend (DIV\(_{a+1}\)) were positive and significantly related to dividend at the 5 percent significance levels. Their coefficients show that increasing firm’s profitability and previous dividend by 10 percent would increase dividend payout by 8.837 and 1.872 percentages respectively. The positive and significant coefficient for profitability is in line with literature because increase in firm’s profitability implies an increase in their liquidity position, hence, more money at their disposal to distribute to shareholders as dividend. Studies such as Bassey et al. (2014b), Osuala (2005) and Fama and French (2001) reported similar findings. The plausible explanation for the positive and significance coefficient of previous dividend (lagged) might be that most firm owners and managers use the previous dividend as a guide to forecast future dividend payment. Similar result was obtained by Bassey et al. (2014b) on their study on two commercial banks in Nigeria.
The leverage coefficient (LEV<sub>a</sub>) was negative and significant at the 5 percent level. Its coefficient shows that increasing leverage by 10 percent would increase dividend payout by 2.365 percent. This is expected since debts are often deducted from firm’s earnings before dividend are declared and paid. Hence, excessive debt is expected to reduce dividend yield. This finding lends support to other studies like Al- Kuwari (2009) and Faccio and lang (2001). It is also at variance with Mollah et al, (2002).

The variable for Firm Risk (FRSK<sub>a</sub>) was negative and significant at the 10 percent level. From its coefficient, increasing firm’s risk by 10 percent would reduce dividend payout by 0.7 percent. The result is in consonance with theoretical postulation and is expected because firms with high business risk have been found to have high cash flow volatility than those with low business risk (Al- Kuwari (2009). Therefore, as a result of unstable and uncertain earnings, firms may try to avoid entering into commitment to pay higher dividend. Also, firms with high degree of business risk have less capacity to sustain financial risk (Kim and Sorensen (1986). This finding lend credence to other studies such as Jensen et al. (1992), D’ Souza (1999) and Llyod (1985).

The variable for fir Size (FSZ<sub>a</sub>) was positive and significant at the 10 percent level of significance. Its coefficient indicates that increasing firm size by 10 percent would increase dividend payout by 2.3 percent. This is surprising given that an increase in firm size implies an increase in the procurement of tangible assets which invariably implies high retention of net earnings. It might be attributed to the fact that large sized firms have easier access to capital market. According to Vogt (1994), access to capital markets reduces their dependency on internally generated revenue, hence, ensures prompt payment of higher dividends. This finding supports that of Gaver and Gaver (1993).

The positive and non-significant coefficient of Firm liquidity (FLT<sub>a</sub>) supports Bassey et al (2014). However, Kenwal and Sugata (2008) reported liquidity to be a significant influence on dividend payment in Greece and USA, respectively. The coefficients for tax (TAX<sub>a</sub>) and retained earnings (RE<sub>a</sub>) carried the expected negative signs but were not significant, showing they were not major determinants of dividend payout in the firms under investigation.

### Table 3: OLS regression result for determinants of dividend payout of agro-based firms

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate coefficient</th>
<th>Standard Error</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.0314</td>
<td>0.1556</td>
<td>0.2018</td>
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<tr>
<td>LogDIV&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>0.1872</td>
<td>0.0663</td>
<td>2.8235**</td>
</tr>
<tr>
<td>LogPRF&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>0.8837</td>
<td>0.3561</td>
<td>2.4816**</td>
</tr>
<tr>
<td>LogLEV&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>-0.2365</td>
<td>0.1156</td>
<td>-2.0458**</td>
</tr>
<tr>
<td>Log FLT&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>0.4411</td>
<td>0.3224</td>
<td>1.3270</td>
</tr>
<tr>
<td>Log FRSK&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>-0.0705</td>
<td>0.0358</td>
<td>-1.9693*</td>
</tr>
<tr>
<td>Log TAX&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>0.0890</td>
<td>0.0845</td>
<td>-1.0533</td>
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<tr>
<td>Log FSZ&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>-0.2345</td>
<td>0.0710</td>
<td>3.3078***</td>
</tr>
<tr>
<td>Log RE&lt;sub&gt;i,t&lt;/sub&gt;</td>
<td>-0.2178</td>
<td>0.2233</td>
<td>-0.9754</td>
</tr>
</tbody>
</table>

### Diagnostic statistics

- R<sup>2</sup> = 74.46
- DW = 2.128
- Fcal = 5.46***
- Akaike Criterion = 171.45
- RESET test = 4.113***
- Schwartz Criterion = 244.86
- Hanan-Quinn Criterion= 198.32
- Normality test = 9.34***

Note: Asteriks, ***, ** and * represent 1%, 5% and 10 %. Variables are as defined in equation (3)

The resultant cash dividend equation is presented thus:

\[
0.0314 + 0.1872\text{DIV}_{i,t} + 0.8837\text{PRF}_{i,t} - 0.2365\text{LEV}_{i,t} + 0.4411\text{FLT}_{i,t} - 0.0705\text{FRSK}_{i,t} + 0.0890\text{TAX}_{i,t} - 0.2345\text{FSZ}_{i,t} - 0.2178\text{RE}_{i,t} + \mu_{it}
\]

### VII. Conclusions

This paper furthers evidence of the determinants of dividend payout using a sample of fifteen quoted agro-based firms in Nigeria as a case study. Evidence shows that while previous dividend, profitability and firm size exerted significant positive influence on dividend payout, leverage and firm business risk exerted significant negative influence on dividend payment. Surprisingly, liquidity, taxes and retained earning failed to explain the variation in dividend payout. Hence, the study concludes that the major determinants of dividend payment of these firms under investigation were lagged dividend, profitability and firm size. Accordingly, series of policy recommendations have been offered.

VIII Recommendations
Based on the finding of this study the following recommendations are made

(i) To minimize risk, policy that would reduce investment in risky projects should be pursued. If possible, a mandatory agro-insurance scheme should be floated to indemnify agro investor against investment loses.

(ii) Policies that would foster dividend payment should be pursued. To enhance dividend payment agro firm owners should strive to reduce their retained earnings and ensure prompt payment of tangible dividend. Reduction in retained earnings would enhance the firm liquidity position.

(iii) Policies that would enhance firm’s profitability should be embarked upon. Attention here should be directed towards reducing taxes through granting of tax rebate and holidays as well as discouraging excessive leverage. This in addition to sound government policies on agricultural sector and macroeconomic stability would enhance firm profitability.

References


