



STYLIZED FACTS OF DIVIDEND POLICY IN DEVELOPING STOCK EXCHANGE: CASE STUDY OF BRVM

**Dr Aboudou
OUATTARA**

Assistant Professor in finance Centre Africain d'Etudes Supérieures en Gestion (CESAG)

ABSTRACT

This study is introduced to identify the stylized facts of dividend policy of companies listed at West African Regional Stock Exchange (BRVM). To attain this goal, data on financial statements and dividends paid during the period 2011-2016 were mobilized. They have been analyzed by descriptive statistics and econometric methods. It emerges from the analysis that the dividend payment is very frequent among companies listed at BRVM. On average, 71 % of listed companies choose the option of paying a dividend of 5.87€ in average for each share issued. A dividend per share of companies listed at BRVM is increasing since 2011. This dividend is growing about 5 % per year. However, it is not sufficient to compensate shareholders regarding the price paid by stockholder. Their yield is between 6.22 % and 7 %. The decision to pay a dividend is determined by the amount and the annual variation of the net profit, the amount of the dividend paid in the previous period. The decision is very resilient confirming Lintner (1956)'s dividend theory. The analysis of dividend policy's characteristics highlights a remarkable difference between financial institutions and industrial or commercial companies. These results answer the readability of dividend policy in developing stock exchange like BRVM. They question the validity of the models build in developed stock exchange in the context of developing economies like WAEMU.

KEYWORDS : Dividend policy, developing stock exchange, BRVM Classification JEL : G35, C510

Introduction

Dividend payment plays a central role in company's stakeholders (shareholder, manager) decision-making. Beyond the income provided to shareholders, the amount and its evolution time by time is meticulously analyzed to identify the information that can be extracted on the company's financial healthiness and on the managers' strategy. It is natural that dividend policy has been subject to a lot of analysis in financial theory. Since the seminal works of Lintner (1956) and Gordon (1959), the analysis of companies' dividend payment behavior provide some controversial conclusions. They are articulated, among others, on the neutrality of dividend policy on value creation and its predominance on other remuneration tools for the shareholders.

Emerging markets were not spared by this controversy. The work of Bushra and Mirza (2015) on Pakistan stock exchange, Firer and al. (2008) on Johannesburg Stock Exchange, Gordon and Kwame Nkrumah (2010) on Ghana stock exchange and Musa and Fodio (2009) on Nigeria are some illustrations. Each of these contributions shows that dividend policies have some specificities that need to be fully understood to enrich financial theory.

Companies listed at West African Regional Stock Exchange (BRVM) have not been subject to this kind of analysis. This study on the theme "Stylized facts of Dividend policy of companies listed at developing stock exchange: a case study of BRVM" aims at filling the gap; and to answer the following problem: what are the characteristics of dividend policy of companies listed at BRVM?

A brief analysis of the dividends distribution highlights a double characteristic: a strong heterogeneity among companies and strong annual volatility for a given company. Indeed, the descriptive statistics on the dividends' annual variation highlights a standard deviation of 74 %, illustration of a strong volatility of dividends. A longitudinal analysis by company shows a 40 % standard deviation of its growth rate; with a strong individual variation between a minimum of 10 % and a maximum of 200 %, alternating with periods without dividend's payment. Undoubtedly the net profit's volatility explains a substantial part of the dividend.

The consequence of this situation is a struggle for financial analysts to ensure a readability of the dividends flows expected by shareholders. It follows a difficulty to estimate the fundamental values of the share prices of companies listed at BRVM. Indeed, the application of Gordon and Shapiro (1956)'s formula or Miller and Modigliani (1961) posit a hypothesis on the constant of the annual dividends' growth at least from a given date.

In these circumstances, a study of the of dividends' payment behavior of companies listed at BRVM is essential. The goal of this study is to shed light on their dividend policy's characteristics. It brings a triple contribution: managerial, analytical and methodological. Firstly, on

the managerial level, the conclusions help financial analysts on how to exploit dividend policy in the valuation of stocks traded at a developing stock exchange. It brings a critical look on dividend policy of companies listed at BRVM and advise managers on the considerations that need to be considered in its elaboration and implementation. On the conceptual level, the results of the research question the validity of the theories developed to explain dividend payment behavior in the situation of a developing stock exchange. Finally, on the methodological ground, the research implementation has required a specific methodology including the proposal of a specific framework and estimation method for dividend payment behavior's parameters in a consistent way that considers BRVM's specificities.

The rest of the document is organized as following. In the first section, the main points of the literature on dividend policy and its implications are discussed. The methodology used is presented in the second section. The results of the research are presented in the third section. It ends by a discussion of the results and some studies that could be conducted to enrich the understanding of dividend policy in WAEMU zone.

1 Definition and determinants of dividend policy, a literature review

This first section presents the literature on dividend policy. The objective is to specify the definition of the underlying concept and to discuss the existing literature on the determinants of dividend policy. The empirical tools used in dividend policy analysis are also presented. A company's dividend policy is the strategy used in setting the amount paid has dividend at the end of each fiscal year and its annual variation (Adediran and Alade, 2013 ; Nkobe and al., 2013). This definition involves the consideration of two parameters in the analysis of the dividend paid by a given company. The first one is its link with the company's net profit or the cashflows. The second concerns the dividend adjustment in relation with the unanticipated, permanent or not, variation of company's economic and financial performances.

The study of a given company's dividend policy involves the analysis of the ratio between the dividend amount paid and its current economic or financial indicators; among others, the *payout ratio* that is the ratio between the dividend amount and the current net profit. It also requires the study of its dynamics time by time.

1.1 Determinants of company's dividend policy

The study of the determinants of dividend policy aims at identifying the internal and external factors that could explain the differences of dividend's amount from one company to another, and its annual evolution, as well as the way of its determination.

It emerges from the literature that the main determinants of dividend policy are, among others, economic and financial performances,

patrimony, investment opportunities, ownership structure, governance and company's culture.

The influence of economic and financial performances on the amount paid as dividend was established by Lintner (1956). The author showed that the amount of dividend of a given company is determined by its current net profit and the amount of dividend paid on the previous fiscal year. Specifically, manager keeps a constant net profit payout ratio and a constant dividend growth rate. He maintains it during a period and modifies them only when it considers that the new ratios are the ones dictated by its new long-term economic and financial performances. These conclusions show that manager use a stable and readable dividend policy in the long run.

Additional analysis highlights the influence of cashflows on dividend policy. Indeed, according to Musa and Fodio (2009), cashflows has a more important influence on the dividends than the net profit. The authors explain this conclusion by the fact that the results can be rigged by managers some accounting practices. They can inflate it artificially to show a performance that is convenient to (or greater than) shareholders' expectations or to increase their remunerations when this one is indexed on it. Besides, the dividends payment is punctured on liquidity, its existence conditions the decision to pay it (Musa and Fodio, 2009).

Goergen and al. (2004) give a nuance to these conclusions by comparing German companies' dividend policy with those of the United Kingdom and the United States of America. Their results show that the first ones pays a less important part of their cashflow as dividend. For the authors, the difference comes from different accounting practices. The conservatism of the German companies' practices explains the specificity of their behavior.

This explanation highlights the role of culture in the definition of dividend policy. Andres et al. (2009) present three essential points in the analysis of the impact of company's culture on dividend policy. It depends on provisioning and accounting practices, the choice of dividends payment media (net profit or cashflows) and the dividend smoothing policy (or its indexation on the current period net profit). Studies highlight the influence of other economic and financial performance components on the dividend payment like turnover variation.

The second determinant of dividend policy is its property. In the literature, we find the influence of net asset, leverage, Book to market value ratio, part of the reserves in the company's balance sheet on dividend policy. This factors has been widely studied in various contexts (Ramcharran, 2001). These works stipulate, among others, that the net asset influences the dividend payment decision and its amount because managers should make sure that the equity is positive and are greater than the thresholds required by authorities based on the risks associated to the companies' activity. It is the case of financial institutions for which their equity has to cover at least the required level and the statutory financial capital.

The third important determinant of dividend policy is the existence of investment opportunities. Their existence leads company to avoid dividend payment and use the retained net profit to finance (partially or totally) its investments by its own-resources (Wasike, 2015). This explanation is supported by the pecking order theory (Myers, 1984) and the stakeholder's theory (Rozeff, 1982). The first one stipulates that managers have a strong preference for self-financing. External financing intervenes when they do not have an alternative. Musa and Fodio (2009) develop a behavioral argument on the reason of the influence of the investment opportunities on the dividend payment decision. They evoke the behavioral biases of the managers of companies listed at Nigeria Stock Exchanges. They consider resources obtained by self-financing as costless. So that, they are prone to a relatively strong propensity to practice a zero dividend policy (Soyode, 1978; Oyejide, 1976).

Whited (1992), Vogt (1994) and La Porta and al. (2000) demonstrated that the influence of the investment opportunities on dividend policy depends on the business environment; in particular the shareholders protection rights. In an environment where investors benefit of a limited protection, the company should pay a high amount of dividend to reassure investors and attract others to secure financing for its future investment opportunities. This contribution implies that the existence

of investment opportunities excites a company to pay a relatively high amount of dividend.

The company's ownership structure and the governance is the fourth factor that influences the dividend policy definition. Albouy (2010) highlights the preferences difference of various types of company's shareholder and their interactions in dividend's amount determination. It favors the securities' blocks holders, against the minority shareholders and employees. The balance of this interaction is strongly determined by minority shareholders' legal protection. The author considered that in the countries where minority shareholders are not or less protected, dividend policy is governed by the securities blocks' holders.

Besides, the ownership structure has an influence on a company's dividend policy (Mossadak et al., 2016). Indeed, institutional investors and individuals prefer dividend payment. Their presence and their weight in ownership structure influences dividend policy. In contrast, the majority shareholders prefer to maintain liquidity in the company and use it for projects financing. They tend to influence dividend payment decision in the direction of its amount reduction and weight in the decision of dividend payment avoidance. Mossadak et al. (2016) established that the concentration of ownership increases the dividend payout ratio in Morocco. But their research doesn't confirm the influence of the presence and part of institutional investors in the ownership.

Employees play a crucial role in dividend policy. They prefer to keep liquidity in the company to finance value-added projects and strengthen financial soundness and their company's positioning. The specific role of the manager, an employee, is highlighted in dividend policy. He limits the dividend payment to reinvest the amount in company's growth, accordingly its share price. Specifically, when he is an assignee of stock option. In addition, he makes a choice of dividend smoothing to avoid shareholders disappointment (Albouy, 2010).

Besides, the author stipulates that weak governance may lead to a generous dividend policy. This conclusion is justified by manager's propensity to practice an excessive dividend payment to satisfy minority shareholders and avoid share price fall. This explanation is subject to controversy because some studies tend to reject these conclusions (Albouy, 2010).

Based on a comparison between EADS and Boeing's dividend policy, Albouy (2010) establishes that the style of governance affects dividend policy. He demonstrated that shareholder governance generates high and regular dividends; while partnership style leads a relatively weak and irregular dividend payment. That result is understandable by the partnership companies' stakeholders' propensity to favor a liquidity reinvestment in company's projects instead of paying dividend.

Other the governance, the agency costs strongly affect dividend policy. It is defined as the conflict between shareholders and debtors. Dividend payment is punctured on company's liquidity, increases its default probability. Thus debtors, more sensible to company's bankruptcy probability, prefer the avoidance of the dividend payment. They pressure assemblies' decision in this direction. The company that resists to this pressure will face short-term credit rationing. This argument is developed by Albouy (2010) who ends in the important role played by the debtors protection. Aguenau et al. (2014) show that Moroccan family owned companies or held by another company has a propensity to pay small amount of dividend. At the same time, they invalidate the influence of the ownership concentration, institutional investors and the government on dividend policy.

There are other variables such as the liquidity index, sales variability, income volatility and leverage, part of insiders, the average growth of the income and the number of share (Musa et Fodio, 2009) that influence dividend policy. Besides, Uzoaga and Alozienwa (1974) establish that the dividend amount is determined by managers' fear and resentment (Musa and Fodio, 2009).

Musa and Fodio (2009) also demonstrated that dividend policy is not homogeneous from one company to another. It depends on company's growth, size and business sector. In their approach, companies are classified in four categories according to two criteria : growth vs mature company and large vs small company. The first criterion is defined on growth opportunities and the second on total balance sheet

(or market capitalization). Growth companies are characterized by their investment opportunities. It distributes a small part of their net profit contrary to mature companies. The large companies may ensure an important amount of dividend.

It emerges from the literature a large diversity of dividend policy determinants that can be grouped in two categories: internal and external. In the first one, company's net profit, ownership structure and governance style play a key role. In the second category, it demonstrates that growth perspectives and legal environment, shareholders and debtor protection affect dividend policy.

The empirical studies bring enrichment to financial theory. It provides a methodology to question the relevancy of these various contributions.

1.2 Empirical tools for dividend policy analysis

Two main tools were used in the empirical studies on dividend policy. It is the correlation analysis and the multiple regressions (in cross section or in panel).

The first one allows to study the linear link between the dividend policy's characteristics and his main determinants (Ojeme et al., 2015). The multiple regressions served to test the relevancy of dividend policy theories by confronting them to the data. In the empirical researches, we find the use of linear model (Adediran and Alade, 2013 ; Musa and Fodio, 2009), panel data (Andres and al., 2009 ; Hafeez and Attiya, 2008 ; Aguenau and al., 2014 ; Wasike, 2015) and in some cases Tobit model (Foroghi and al., 2011 ; King'wara, 2015).

In these empirical studies, the main determinants and which have more or less significant influence are the current fiscal year's net profit, the amount of the previous dividend, the investments and the net asset, the growth, the size, the company business sector (Musa and Fodio, 2009 ; Adediran and Alade, 2013 ; Wasike, 2015). The second point in the empirical studies concerns the data mobilized. Most of them use the data stemming from financial statements and stock exchange. Some are based on survey data used to study managers' perception of the dividend policy and to identify the most important parameters that influence the dividend amount (Firer and al., 2008).

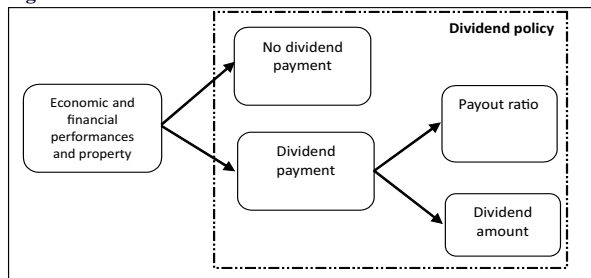
2 Methodology

Following the literature review, this section presents the methodology used for dividend policy analysis. The research framework, the data used and empirical analysis tools are successively discussed.

2.1 Research framework

The research framework is inspired by Lintner (1956)'s model. In broad outline, we assume that shareholders, based on the company's economic and financial performances and its properties define dividend amount. The choice is dictated by its dividend policy. The underlining reasoning can be summarized according to figure 1.

Figure 1 : Research framework



This framework postulates that the dividend amount is determined in a sequential way. Shareholders decide firstly to pay (or not) a dividend by considering the current fiscal year's net profit, the company's property and the dividend history. Subsequently, the payout ratio and the dividend are determined. Both decisions are taken simultaneously and are dictated by company's dividend policy. The implementation of this analysis framework required suitable data.

2.2 The data

The empirical analysis leaned on the information built from financial statements of the target companies and the dividend payment announcement . The data collection provided information over the

period 2011 - 2016. It covers 41 companies listed at BRVM on the period. Because of some companies' revocation from quotation and IPO for others over the period, the data constitute an unbalanced panel of 256 observations (company x fiscal year).

For every company and fiscal year, database contains information on the dividend paid and financial statements contents. We computed some useful indicators describe in the following section. Due to some BRVM's specificity, we adopted a parameter's estimation framework that needs a look.

2.3 Framework for dividend policy's parameters estimation

This section is dedicated to dividend policy's parameters estimation methodology. Two groups of variables were established: variables that measures dividend policy (dependent variables) and the explanatory variables (independent variables).

Four independent variables are defined. For a given company and exercise, dividend payment which is equal 1 if the company pay a dividend and 0 otherwise (*PayDiv*), the logarithm of the dividend's amount per share paid by the company (*LogDiv*), the payout ratio (*TauxDistr*) and the dividend per share's variation (*EvolDiv*). The combination of these four variables allows analyzing dividend policy of companies listed at BRVM. For each variable, we posit a relation between the dependent variables and the exogenous variables according to the relation:

$$Y_{i,t} = f(X_{i,t})(1)$$

The shape of the relation *f* (.) depends on the independent variables studied. For the dividend's payment (*PayDiv*), it is a logistic relation. For payout ratio (*TauxDistr*) and the dividend per share's variation (*EvolDiv*), it is a linear relation. For the amount of dividend per share (*LogDiv*), it is a tobit model (Smith and Brame, 2003). This relation posits that the amount of dividend is relying on economic and financial performances and exogenous parameters by a nonlinear relation according to the expression given by the equation (2) and (3):

$$d_{i,t} = \begin{cases} d^*_{i,t} & \text{si } d^*_{i,t} > 0 \\ 0 & \text{si } d^*_{i,t} \leq 0 \end{cases} \tag{2}$$

²<http://www.brvm.org/Default.aspx?TabId=85&language=fr-FR>, view on 09th may 2016

$$d^*_{i,t} = a_i + \delta_t + b e_{i,t} + c d_{i,t-1} + \beta' X_{i,t} + u_{i,t} \tag{3}$$

with

- $d_{i,t}$: the logarithm of dividend's amount paid by company *i* at period *t*
- a_i : fixed effects of company *i*'s dividend policy
- δ_t : time effect of dividend policy
- b : dividend's adjustment coefficient to the current fiscal year's net profit
- $e_{i,t}$: the logarithm of net profit of company *i* at period *t*
- c : dividend adjustment coefficient to its previous level
- $X_{i,t}$: Blocks of exogenous variables representing companies' individual characteristics
- $u_{i,t}$: Residual term

The nonlinear formulation stipulates that the company's target dividend payment is observed only when its value is greater than 0. The coefficient *ci* measures the speed with which company *i*'s manager revise the dividend amount in a given period when he realized that there is a gap between its dividend payment target and the dividend amount paid in the previous period.

According to the literature, we selected the dividend policy explanatory variables as following. We posit that the potential dividend policy's parameters depend on the type of the company (financial institution or not).

The list of variable for both kind of organization has a common components define by : *Net Earnings per share (EPS)*, *Earnings per share's variation (EPS_Vari)*, *the logarithm of the previous period dividend per share amount (LogDiv_1)*, *the company's size measured by the logarithm of the total balance sheet per share (LogTotBilan)*, *the company's leverage measured by the ratio between the total debt and the total balance sheet (Lev)*, *the investment opportunities (PrimeRes)*

and the Book to Market ratio (BM).

For the industrial or commercial companies, additional explanatory variables are used: immediate cash ratio (Liqimm) and turnover's variation (VCA). For financial institutions, net banking income's variation (VPNB) is used. All these variables constitute the block of exogenous variables X.

The implementation of this methodology provided some results on BRVM's companies dividend policy.

3 Results

Following the methodology, this section is focused on the results; in particular, those relative to the analysis of dividend policy's characteristics of companies listed at BRVM.

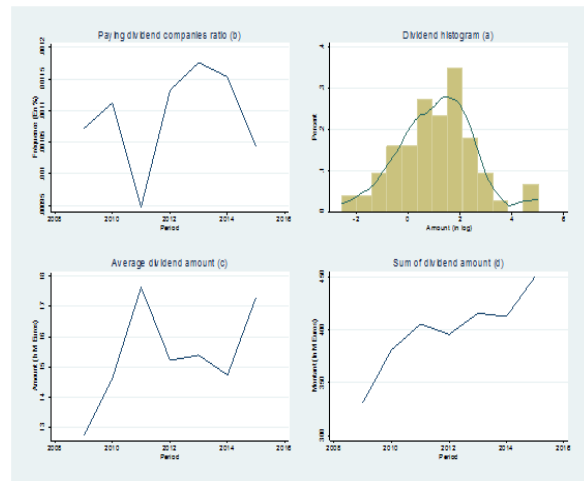
The presentation is subdivided into three sub-sections. Firstly, we describe dividends paid at BRVM over the period 2011-2016. Thereafter, the characteristics of dividends paid are discussed. We end with the analysis of dividend policy characteristics companies listed at BRVM.

3.1 Dividends payment at BRVM

This first sub-section is dedicated to the study of the characteristics of dividends paid by companies listed at BRVM. Explicitly, the analysis is focused on the total amount of dividend paid, the fraction of companies that pay a dividend in each period, the payout ratio. Figure 1 below show the descriptive statistics of these variables.

Figure 1: Dividend amount and its payment occurrence

Variable	Obs	Mean	Std. Dev.	Min.	Max.
Paying dividend companies's ratio	256	71.48%	45.24%	0.00%	100.00%
Total amount paid (In million €)	182	15.34	39.43	0.12	228.67



Note : the figure shows the characteristics of dividend paid by companies listed at BRVM. There are four panels. The first one (a) shows the evolution of the paying dividend companies ratio from 2009 to 2015. The second (b) present the histogram of dividend paid on the period. The third (c) shows the evolution of the dividend amount paid by listed companies from 2009 to 2015. The last (d) shows the evolution of the total amount paid as dividend from 2009 to 2015.

Over the period 2010 to 2016, on average 7 companies out of 10 pay a dividend per year. The annual situation shows some disturbances as shown in panel (a). We notice that the fiscal year 2011 is the one in which few companies pays dividend. This situation could be attributable to Ivory Coast's post-election crisis, which prevailed during this period. The fraction of paying dividend companies increased the following year. It reached the same level as in 2010. Since 2014, the dividend paying companies' ratio begun a downward trend.

On average, every paying dividend company paid to his shareholders a total amount of 20 million €. The amount paid by companies

encountered some disturbances. After a peak in 2011, it realized a drop in 2012-2014. In 2015, the amounts paid by company realized a strong resumption.

Contrarily, the total amount is continuously growing up as shown in Figure 01 (panel d). Overall, the amount paid to the investors by companies listed follows an upward trend from 340 million € in 2010 to about 460 million €. On the fiscal year 2015; that is with an annual growth of 5.31%.

An analysis of the individual specificities highlights SONATEL SN's structuring role in the total dividends amount according to its weight on the market. It is characterized by a steadiness in the dividend payment. Let us recall that it counts for more than 50 % of the total amount distributed by companies listed at BRVM. From 190 million € in 2010, the total amount distributed by the company reached 230 million € in 2016.

Contrarily, some companies did not pay dividend over the period. The cases of NEI CI, SICOR CI, MOVIS CI, SETAO CI and TRITURAF CI are illustratives. These companies are those that faced economic and financial disappointing performances over the period. The last one is even in closeout's situation since many years.

We can also mention the situation of companies that pay a small amount as dividend. It is the situation of TOTAL CI with an amount of 120 thousand € in 2016. The other interesting case is that of companies which maintain dividend payment in spite of negative net profit. The situation of CROWN SIEM CI in 2013 and 2015 is illustrative.

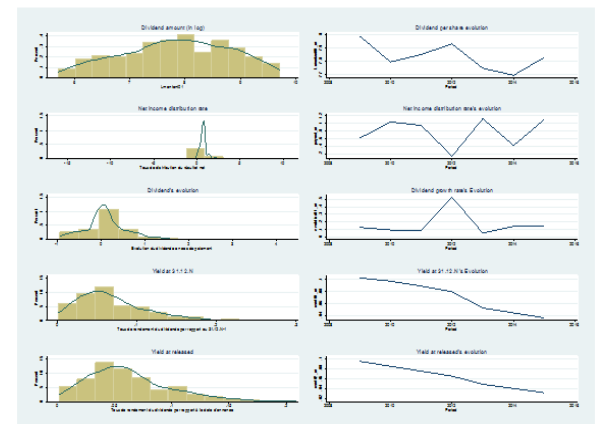
It emerges from this descriptive analysis that in overall the dividend payment is very frequent among companies listed at BRVM. On average, more than 7 companies out of 10 are engaged in this exercise every year. The amounts paid by company encountered a contrasted evolution over the period by becoming soaked with by the economic and political situation of the WAEMU zone and its member countries. The combination of these parameters produces an increasing trend for the total amount paid by all listed companies to investors. This overall evolution does not however hide the individual choices of some listed companies. This analysis at the global level needs to be enriched by an analysis of dividends characteristics.

3.2 Characteristics of dividend paid by company listed at BRVM

This sub-section is dedicated to the analysis of dividends characteristics. Following the previous sub-section, it is positioned at investors' level to appreciate the amount received by each shareholder, the part of the net income distributed, the evolution of the annual dividend and its yield. The Figure 02 presents the descriptive statistics and their evolution over the period.

Figure 2: Descriptive statistics of dividends characteristics

Variable	Obs	Mean	Std. Dev.	Min.	Max.
Net amount paid (euros)	182	5.87	5.31	0.46	24.97
Payout ratio	180	76.65%	234.16%	-1,603.62%	1,150.31%
Evolution	168	16.15%	64.54%	-94.13%	443.54%
yield at 31.12	180	7.12%	4.79%	0.23%	29.76%
Yield at announcement date	182	6.28%	3.67%	0.13%	20.84%



The analysis of these results highlights that on average a shareholder receives an amount of 5.87 € with a strong between variance from a minimum of 0.46 € to a maximum of 24.97 €. Number of outstanding shares can mainly explain the difference by companies.

The amount paid represents on average 76 % of the fiscal year's net profit. Companies listed at BRVM puncture a relatively high fraction of their annual net profit to pay a dividend. They behave as mature companies which need little liquidity for their project's financing; unless it is a strategy to satisfy shareholders and obtain their trust in company's future projects. We observe an extreme behavior of companies, which despite the negative net profit maintain dividend payment; more over the case of companies that pays an amount of dividend greater than the current net profit is curious.

The two other characteristics of dividends that retained our attention are their annual evolution and the yield. On average, companies listed at BRVM ensure an annual growth of 16 % of the amount of dividend per share. This rate is relatively high. The investors are ensured by the regular growth of the liquidity that is paid to them. The distribution of this indicator highlights a strong heterogeneity between companies.

In contrast, the dividends yields are relatively low. Compared with the share price at December 31st, dividend amount yields only approximately 7 cent for each Euro invested. This yield is just above the interest rate paid on government bonds available on the market,

which has an average rate between 6 and 6.5 %. Moreover, its evolution highlights a strong reduction in the recent period (Figure 02). This trend demonstrates that the dividends increase is not enough to offset that of the share price. The analysis of the yield at the dividend announcement date highlights a similar characteristic.

We can keep in mind that dividends per share of companies listed at BRVM is characterized by an increasing with a comfortable annual growth rate but that is not enough to compensate shareholders with regard of the price paid to hold the asset. An analysis of dividend policy's characteristics should allow us to understand choices made by these companies.

3.3 Characteristics of dividend policy of companies listed at BRVM

As announced in the methodology, dividend policy of companies listed at BRVM is studied through four indicators: the dividend payment (PayDiv), the logarithm of the dividend per share paid (LogDiv), the payout ratio (TauxDistr) and the variation of the company's dividend per share (EvolDiv).

For each of them, we estimate an econometric model (logistic, linear or tobit) according to the specificities of the dependent variable. We estimated two models : one for financial institutions and another for industrial or commercial companies. The result of the estimations is shown in table 01.

Table 01: Estimation of dividend policy's characteristics of companies listed at BRVM

VARIABLES	Industrial or commercial companies				Financial institution			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dividend paid	amount	Payout ratio	Evolution	Dividend paid	amount	Payout ratio	Evolution
Model	Logit	Tobit	Linear	Tobit	Logit	Tobit	Linear	Tobit
Constant	-0.0955 (5.211)	8.847 (8.665)	13.48 (10.56)	1.191 (5.787)	-1,027 (0.000)	15.76 (23.33)	1.936 (3.062)	2.247 (4.111)
PayDiv_1	-2.798 (4.734)							
EPS	0.000538*** (0.000183)	0.000210*** (3.75e-05)	2.82e-05 (6.20e-05)	4.98e-05*** (1.51e-05)	-0.00633 (0.000)	5.11e-05 (0.000117)	-1.82e-05 (1.59e-05)	2.57e-05 (3.16e-05)
EPS_Vari	-0.130 (0.0979)	-0.0626 (0.0400)	-0.1000 (0.0717)	0.141*** (0.0286)	87.82 (0.000)	0.353* (0.197)	0.0103 (0.0336)	0.722*** (0.163)
Lmontant_1	1.015 (0.670)	0.0958 (0.0838)	-0.0466 (0.152)	-0.425*** (0.102)	51.33 (0.000)	-0.624*** (0.196)	0.00542 (0.0376)	-0.189 (0.203)
PartRes	-7.647** (3.679)	-9.000*** (2.807)	-0.674 (4.069)	-0.646 (0.953)	-27.23 (0.000)	-6.200*** (1.106)	-0.00763 (0.634)	-0.751*** (0.195)
VCA	3.253*** (1.254)	-0.0407 (0.0464)	0.0128 (0.0614)	0.0492*** (0.0148)				
BM	-0.0179 (0.0382)	0.238*** (0.0766)	0.309** (0.142)	0.0444 (0.0600)	10.67 (0.000)	0.213** (0.0758)	0.00414 (0.0231)	0.00230 (0.0119)
LEV	-11.18*** (3.237)	-18.43*** (3.339)	-1.416 (5.326)	-1.281 (1.281)				
liqimm	-0.644 (2.167)	-1.210 (1.225)	-1.922 (1.763)	0.255 (0.432)				
taille	0.250 (0.227)	-0.620** (0.297)	-0.478 (0.413)	-0.0562 (0.102)	27.42 (0.000)	-0.124 (0.880)	-0.0517 (0.118)	-0.0308 (0.133)
Obs	162	162	116	116	40	41	39	40
Error-type in brackets					*** p<0.01, ** p<0.05, * p<0.1			
PayDiv : Dividend payment (equal 1 if the company pay a dividend and 0 otherwise; PayDiv_1 : Dividend payment in previous period; EPS : Earning per share ; EPS_Vari : Earning per share's variation; Lmontant_1 : Logarithm of Dividend per share paid in the previous period; PayOut : Payout ratio; PartRes : Part of premiums and reserve in balance sheet; VCA : Turnover's evolution; BM : Book to market value ratio; LEV : Leverage; liqimm : Immediate liquidity; taille : Company's size								

It emerges from the analysis that there is a difference between financial institutions and industrial or commercial companies regarding dividend payment behavior. Indeed, it establishes that the net profit influences significantly and positively the decision to pay, the amount paid and its annual variation in the case of industrial or commercial companies; but it doesn't influence significantly the decision for financial institutions.

The influence of the net profit's variation on the dividend's variation is significant for both groups of companies. Indeed, for financial institutions and industrial and commercial companies, the net profit's

variation influences positively the variation of the dividend amount paid. However, the two groups do not pass on the same proportions of the performances or the counter-performances. On average, financial institutions echoes 72 % of this variation in dividend amount's variation; where industrial or commercial companies echo only 14 %.

Another difference between the two groups is in the influence of the previous period dividend amount on dividend policy. In both cases, it influences negatively the current period decision. But, for financial institutions, its influence concerns the dividend amount; where for industrial or commercial companies it impacts the variation. A

relatively high dividend amount in a given period tends to reduce the next period dividend amount or variation.

For industrial or commercial companies, we established that the variation of the turnover has a positive statistically significant influence on the amount and the dividend variation. The leverage reduces the dividend payment. The part of the reserves in the balance sheet has a negative effect on dividend payment. On the other hand, liquidity has no influence on dividend policy.

The companies' size has an influence on dividend policy for industrial or commercial companies but not on that of financial institutions. On average, large companies pay less dividend than the small one, as shown by the negative sign of the variable into model (2).

Overall, the analysis of the dividend policy's characteristics of companies listed at BRVM highlights a remarkable difference between financial institutions and industrial or commercial companies. The results confirm the influence of the current net profit on and the previous period dividend amount on the decision to pay a dividend or not and on the amount paid or its evolution. In this sense, our conclusions confirm the validity of Lintner (1956) proposal on the influence of current net profit and previous period dividend on dividend payment. Also, the influence of the turnover's evolution, the leverage and the size of companies is in concordance with the literature's forecasts (Ramcharran, 2001).

In contrast, the absence of liquidity effect on the decision to pay a dividend and a dividend amount is a specific result for BRVM. It means that companies listed at BRVM do not consider the liquidity availability to decide if they can pay a dividend. This result is against the proposal of Musa and Fodio (2009) who established that cashflows has a more important effect on dividend policy than the current net profit.

This last point encloses the presentation of the results.

Conclusion

The objective of this research is to provide a knowledge on dividend policy of companies listed at BRVM, a developing stock exchange. Its ambition is to question the validity of the financial theory's conclusions in the specific case of developing stock exchange like that of WAEMU zone.

Data on companies' dividends and share price between 2010 and 2016 were analyzed by descriptive statistic and econometric techniques.

It emerges from the analysis that the dividend payment is very frequent among companies listed at BRVM. Dividends per share of companies listed at BRVM is characterized by an increasing with a comfortable annual rate on 2010-2016 but that is not enough to compensate shareholders with regard of the price paid to hold the asset. On average, 71 % of companies listed choose the option of paying a dividend of 5.87 € in average for each issued share and with a return between 6.22 % and 7%. This dividend is growing about 5 % per year.

The decision to pay a dividend is influenced by the amount and the variation of the operating profit, the amount of the dividend paid in the previous period. The decision is very resilient. The analysis of dividend policy's characteristics highlights a remarkable difference between financial institutions and industrial or commercial companies.

In spite of this difference, Lintner (1956)'s conclusions on the influence of current net profit and previous dividend is valid for BRVM. In contrast, the liquidity does not influence the decision to pay a dividend or not.

It is a contribution that needs to be reinforced by complementary research to enrich dividend policies' practices, the models and the research methodology in management. In this study, it was not possible to consider the tax system of dividends and capital gain. Also, the ownership structure of the target companies was not considered. While the literature emphasizes the role of these two parameters in the dividend policy definition, their omission in this analysis was dictated by the absence of reliable data on the analysis period.

Other promising research could be directed on dividend policy

perception by head of financial department of companies listed at BRVM and treasurers. Understanding these perceptions and that of the financial analysts and portfolio management may bring a clarification on their contribution to the definition of dividend policy of companies listed in developing stock exchange. Another way of research could be to enrich the results by the consideration of the tax system of dividends and capital added or losses values and shareholding of the target companies. Supplementary way of research can be an intertemporal point of view the dividend policy. In this paper, we reason in a static model. Since the contribution of Theobald (1978), Wallingford (1972) and Bhattacharya (1980), financial theories have been enrich with an inter-temporal analysis of dividend policies. It will be enriching to envision an inter-temporal analysis of companies listed at BRVM's dividend policy. Finally, the study of the reaction of the investors to dividend announcement in the WAEMU zone is an interesting way that can be envisaged.

References

1. Adediran, S.A., Alade, S.O., 2013. Dividend policy and Corporate Performance in Nigeria. *American Journal of Social and management sciences* 4, 71–77.
2. Agueaou, S., Farooq, O., Di, H., 2014. Dividend Policy and Ownership Structure: Evidence from the Casablanca Stock Exchange. *GSTF Journal on Business Review (GBR)* 2.
3. Albouy, M., 2010. La politique de dividende permet-elle de discipliner les dirigeants ?
4. Andres, C., Betzer, A., Goergen, M., Renneboog, L., 2009. Dividend policy of German firms: A panel data analysis of partial adjustment models. *Journal of Empirical Finance* 16, 175–187.
5. Bhattacharya, S., 1980. Nondissipative Signaling Structures and Dividend Policy. *The Quarterly Journal of Economics* 95, 1–24.
6. Bushra, A., Mirza, N., 2015. The Determinants of Corporate Dividend Policy in Pakistan. *Lahore Journal of Economics* 20, 77–98.
7. Firer, C., Gilbert, E., Maytham, A., 2008. Dividend policy in South Africa. *Investment Analysts Journal* 37, 5–19.
8. Foroghi, D., Karimi, F., Momeni, Z., 2011. The investigation relationship of dividend behavior and likelihood of paying dividend with financial tehran stock exchange. *Interdisciplinary Journal of contemporary Research in Business* 3, 390–397.
9. Goergen, M., Renneboog, L.D.R., Correia Da Silva, L., 2004. Dividend policy of German firms : A dynamic panel analysis of partial adjustment models (Discussion Paper No. 2004-13). Tilburg University, Tilburg Law and Economic Center.
10. Gordon, M.J., 1959. Dividends, Earnings, and Stock Prices. *The Review of Economics and Statistics* 41, 99–105.
11. Gordon, M.J., Shapiro, E., 1956. Capital Equipment Analysis: The Required Rate of Profit. *Management Science* 3, 102–110. doi:10.1287/mnsc.3.1.102
12. Gordon, N.A., Kwame Nkrumah, 2010. The impact of dividend announcement on share price behaviour in Ghana. *Journal of Business & Economics Research* 8, 47–58.
13. Hafeez, A., Attiya, Y.J., 2008. Dynamics and determinants of dividend policy in Pakistan (evidence from Karachi stock exchange non-financial listed firms) (MPRA Paper No. 37342). University Library of Munich, Germany.
14. King'wara, R., 2015. Determinants of Dividend Payout Ratios in Kenya. *Research Journal of Finance and Accounting* 6, 48–51.
15. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 2000. Agency Problems and Dividend Policies around the World. *The Journal of Finance* 55, 1–33.
16. Lintner, J., 1956. Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes. *The American Economic Review* 46, 97–113.
17. Miller, M.H., Modigliani, F., 1961. Dividend Policy, Growth, and the Valuation of Shares. *The Journal of Business* 34.
18. Mossadad, A., Fontaine, R., Khemakhem, H., 2016. The Relationship between Ownership Structure and Dividend Policy in an Emerging Market: A Moroccan Study. *Universal Journal of Accounting and Finance* 4, 89–95.
19. Musa, Fodio, I., 2009. The dividend policy of firms quoted on the Nigerian stock exchange: An empirical analysis. *AJBM* 3, 555–566.
20. Myers, S.C., 1984. Capital Structure Puzzle (SSRN Scholarly Paper No. ID 227147). Social Science Research Network, Rochester, NY.
21. Nkobe, D.K., Simiyu, A.K., Limo, P.K., 2013. Dividend policy and share price volatility in Kenya. *Research Journal of Finance and Accounting* 4, 115–120.
22. Ojeme, S., Mamidu, A.I., Ojo, J.A., 2015. Dividend Policy and Shareholders' Wealth in Nigerian Quoted Banks. *Canadian Social Science* 11, 24–29.
23. Oyejide, T.A., 1976. Company Dividend Policy in Nigeria : An empirical Analysis. *The Nigerian Journal of Economic and Social Studies* 18, 179–194.
24. Ramcharran, H., 2001. An Empirical Model of Dividend Policy in Emerging Equity Markets. *Emerging Markets Quarterly* 5, 39–49.
25. Rozeff, M.S., 1982. Growth, Beta and Agency Costs as Determinants of Dividend Payout Ratios. *Journal of Financial Research* 5, 249–259.
26. Smith, D.A., Brame, R., 2003. Tobit Models in Social Science Research: Some Limitations and a More General Alternative. *Sociological Methods & Research* 31, 364–388.
27. Soyode, A., 1978. Dividend Policy in an Era of Indigenization : Some Further Comments. *The Nigerian Journal of Economic and Social Studies* 18, 39–48.
28. Theobald, M., 1978. Intertemporal Dividend Models—An Empirical Analysis Using Recent UK Data. *Journal of Business Finance & Accounting* 5, 123–135.
29. Uzoaga, W.O., Alozienuwa, J.U., 1974. Dividend Policy in an Era of Indigenization. *The Nigerian Journal of Economic and Social Studies* 16, 461–477.
30. Vogt, S.C., 1994. The Cash Flow/Investment Relationship: Evidence from U.S. Manufacturing Firms. *Financial Management* 23, 3–20.
31. Wallingford, B.A., 1972. An Inter-Temporal Approach to the Optimization of Dividend Policy with Predetermined Investments. *The Journal of Finance* 27, 627–635.
32. Wasike, T.W., 2015. Determinants of dividend policy in Kenya. *International journal of arts and entrepreneurship* 4, 71–80.
33. Whited, T.M., 1992. Debt, Liquidity Constraints, and Corporate Investment: Evidence from Panel Data. *The Journal of Finance* 47, 1425–1460.