MULTIVARIATE ANALYSES OF FACTORS AFFECTING DIVIDEND POLICY OF ACQUIRED EUROPEAN BANKS

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Abstract

Dividends, particularly of acquired banks are influenced by several structural adjustments especially after mergers. The paper evaluates the various factors affecting dividend of both acquired and non-acquired banks. Using data from 120 large mergers and acquisitions in Europe, the study finds that while the levels of liquidity, risk, composition of the financial structure are pertinent factors in the dividend policy of banks, the price earning (PE) ratio is specifically fundamental to non-acquired banks. The significance of the variable in the non-acquired banks indicates that growth in bank investments and future projects exert more aggressive impact on banks that are not acquired or less likely to merge. This finding is novel as previous studies on dividend policy do not make this distinction.

Keywords: Dividend, Yield, Bank Mergers, Acquired

JEL Classification: G14, G21, G24, 34

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1. Introduction

The debate on dividend policy and its impact on the bank have been well documented in finance studies. Dividend policy is primarily concerned with the decisions regarding dividend payout and retention. Lease (2000) described it as the practice adopted by managers in making dividend payout decisions. It is a decision that considers the amount of profits to be retained for further investments and that to be distributed to the shareholders of the bank.

The objective of a firm's dividend policy is to be consistent in the overall objective of maximising shareholders wealth since it is the aim of every investor to get a return from their investment. Economist, Psychologist and the Sociologist have all attempted to explain investor behaviour in a number of ways and to relate the various corporate dividend policies to the theories on the behaviour of individual investors.

The amount of dividend to be paid out by firms could be influenced by the size of the firm. Companies that are large in size are more than likely to pay dividend more often than the small firms. Larger firms also have higher agency costs and a relatively lower transaction cost than the small firms. Dividend payout is inversely related to intrinsic business risk. Kalay (1980) opined that companies with unstable earnings pay less in dividends in attempt to maintain a stable dividend payout and to avoid the cost of borrowing from external sources.

The dividend yield and payout have been used as proxies of dividend policy in finance studies and are often influenced by both internal and exogenous factors to the bank. Both measures of policy are likely to have different results or affected by divergent factors as they are intrinsically unique variables constructed to measure specific elements. While dividend payout has the traditional focus on relating portion of the after tax profit paid to shareholders, the yield quantifies such dividends on the basis of its current market value. Most studies have used both variables in part or jointly to describe dividend policy. For instance, Chen et al (2005) used payout and yield; Gugler and Yurtoglu (2003) used payout; Johnson et al (2006) applied yield. In practice though, the yield provides an appropriate and substantive measure of dividend as it compares with the market value.

The extant literature has primarily focused on bank dividend policies but does not test the same effects on acquired and non-acquired banks. As both groups of banks are different in their managerial and financial structures, it is pertinent to suspect that their dividend policies will be different. After all, acquired banks are more cautious in formulating dividend policies that aligns with their operational and managerial strategy (Nnadi & Akpomi, 2009). The present study therefore is posit to examine whether same issues of concern by banks engaged in mergers

and acquisitions in formulating their dividend policies are same for non acquired banks. An understanding of how banks are influenced by the various factors affecting dividend policy is vital to bank management seeking acquisitions.

2. Factors Influencing Dividend Policy

The choice of a particular dividend policy by a bank is not usually accidental. It is tailored to either meet the banks and shareholders needs. Shareholders have different choice of dividend depending on their needs. Firms also adopt policies that suite their peculiarity. Some studies have identified various factors affecting dividend policy of banks as: agency costs, reinvestment required for new capital projects, existing cash levels and liquidity, market reaction to a change in dividend, tax, shareholders preference for income or capital gain etc. However, there is an identified gap in the literature; most studies do not differentiate or test the variables on samples of acquired and non-acquired banks. This is vital as banks involved in M&A deals take a different of dividend in accordance with their organisational strategy.

Finance literatures[15] have been agog on the issue of agency costs and its impact on dividend policy of firm. Rozeff (1982) used sample of US banks and found that agency costs (***Insider***) and beta have no significant effect on the dividend of banks. This result corroborates Casey and Dickey (2000) who also found that insider makes no impact to the dividend policy of banks. However, his study did not focus on the level of impact on acquired and non-acquired banks. Dempsey & Laber (1992) add that while the dividend yield is negatively related to the ***Insiders***, it has a positive significance to the proportion of the ordinary shareholders.

Studies have also shown that liquidity and beta are also very important factor in dividend. Lie (2000) asserts that cash dividend declaration is positively related to the firm's level of liquidity. Gugler (2003) and La Porta, et al (2003) assert that liquidity of a firm as very fundamental in its dividend decisions. The dividend yield follows the pattern of the beta and employs the coefficient of variation to measure the stability of the yield.

Pandey (2001) using 1729 Malaysian firms in a panel data analysis found that the level of risk, measured by beta is significant in measuring the dividend yield. Watson & Head (2004) affirmed that firms such as banks that operate in high business risk ventures, which are susceptible to cyclical swings in profit, tend to reciprocate by paying low dividends in order to avoid the risk of reducing dividend in the future.

However, previous studies relating to the tax effect on dividend decisions have produced very conflicting results[16]. Casey & Dickens (2000) affirmed that taxes have significant impact on the dividends of commercial banks in the US. Their findings concurred with an earlier study by Rozeff (1980). The assumption is that the lower the taxes, the higher the dividend payout. In addition to the dissident findings, Anil & Kapoor (2008) maintain that the imposition of taxes on dividend has no significant impact on the dividend policy of any organisation.

Wu (1996) investigated the impact of eliminating the preferential capital gain tax treatment of 1986 in the US and found some structural changes in the pattern of dividend which coincides with changes in the tax laws. The study concludes that such a shift significantly affects the aggregate corporate dividend policy. Wilkinson, Cahan & Jones (2001) recommended a reduced tax policy for firms in New Zealand as a strategy for dividend imputation. In a recent study, Pattenden & Twite (2008) evaluated the tax effect on dividend policy in Australia under different tax regimes for the period 1982-1997. They found that the increase in dividend payout and initiation differ among different firms. However, the study affirms that the higher the level of available franking tax credits, the higher the dividend initiation.

Other studies; Brunarski, Harman & Kehr (2004) and Pattenden & Twite (2008) have investigated the optimal finance structure of firms and assert that the assets and equity composition of the capital structures are very important in its decisions on dividend. When the equity/ asset ratio increases, the dividend decisions will be reviewed upwards. As the number of shareholders increase, their stake also increase in the organisation, thus this affects the review of the dividend policy of the banks. This argument will be more substantive among merged banks where the bank equity is increased as result of the mergers.

The size of banks is perceived to be influential to the dividend policy they might pursue. Large banking organisations are likely to pursue a robust dividend structure. Reeding (1997) and Fama & French (2001) argue that large firms are likely to be consistent in their dividend policy. However, Chang & Rhee (2003) and Johnson et al (2006) find no support on

[15] Many studies on the role of insiders on dividend policy have been undertaken over the past three decades. Short (1994) and Gugler (2003) present an extensive survey of studies in dividend policy cum agency costs.

[16] La Porta, et al (2000) & Poterba & Summers (1985) chronicled various studies and highlight the various divergent views among scholars of the tax effect on dividend policy. The traditional views assert that high taxes (either on personal or corporate bases) particularly in the US often serve as a bulwark to dividend payments. But this position is not without objections. Miller & Scholes (1978) held that investors employ various dividend tax avoidance techniques that make them escape from taxes. The ''new view of dividends and taxes'' proponents such as Harris, Hubbard, and Kemsley (1997), assert that taxes do not deter dividend payments. They agreed that cash must be paid out as dividend to shareholders at some point so, the payment of such dividends imposes no great burden on the shareholders.

the size argument. Their studies indicate that total assets (used as proxy for size) of the banks does not translate to operational efficiency. Thus, large banks with enormous assets may be less productive than a street bank. This position is supported by a recent study of Pattenden & Twite (2008) which observed that large firms, with their high level of debts, do not necessarily pay better dividend. Firms with many high equity capitals do not guarantee a higher dividend policy.

From a strategic point, banks dividend policy should be at tandem with their level of profitability. But empirical studies have fallen short in finding strong support for such assumption. In a recent study of Spanish banks, Bernad et al (2010) find no support for aligning performance and dividend policy. Other studies such as Change & Rhee (1990), Baker & Powell (200) support this view. The justification of their argument lies in the fact that a reduction in dividend due to a decrease in profit gives a bad signal about the bank. Banks would maintain a sustainable level of dividend such that a downturn in the organisation would not lead to a reduction in dividend. In fact, these proponents believe that firms would rather increase their leverage than reduce their dividends.

Findings supporting profitability as an influential element in dividend policy include Gaver & Gaver (1993), Fama & French (2001, 2002), Gugler (2003) and Pattenden & Twite (2008). The argument portrayed in these studies is that profit is directly related to the dividend. Thus, a fall in profitability will amount to a decrease in the amount of dividends declared and paid, and decline in the dividend yield. The argument does not however take into consideration that a reduction in dividend due to a fall in profit would send a wrong signal to the public and could thus jeopardise the growth of the bank.

Baker & Powell (2002), Anil & Kapoor (2008), Chang & Rhee (1990), Pattenden & Twite (2008) and Casey & Dickens (2000) are all in agreement that growth of a firm has no significance on its dividend policy. The dividend signal hypothesis eliminates any idea of dividend reduction. Thus, the argument is that when a bank grows, it increases both capital and finance structures at the same level with its dividend policy.

However, like in many other studies, there are contradictory findings against this view. Some studies (Gaver & Gaver 2003, Grullon, et al 2002, Fama & French 2002 and Brunarski, Harman & Kehr 2004) argue that increase in growth would potentially drain the earnings available to shareholders and thus reduce dividend. They are inversely related as increase in one causes a reduction in the other. Future investments in the strategic growth of the banks, whether through mergers or organic growth can be capital intensive which drains the banks retained earnings. This argument however fails to recognise the imperative market reaction to any significant negative impact on dividend.

The catering theory of dividend has become a front runner in the dividend model theories. The principle behind the theory is that decisions to pay dividends are usually driven by investors demand. Management therefore 'cater' for investors by paying dividends to shareholders who require it and not paying when the investors do not require dividends. Baker and Wurgler (2004) argue that investors have uninformed and time varying demand for dividend paying shares. This demand is not influenced by any arbitrage as the prices of the payers and non-payers remain unperturbed. Management would pay dividend when investors place higher prices on payers but avoid payments if investors prefer non-payers. The study used the catering dividend dynamics to support that argument that managers cater for time varying investors in an attempt to maximise share prices. Their results suggest that dividends are highly relevant to share values but in different directions and times.

3. Methodology

The study sample is drawn from twelve European countries with record of large bank acquisitions during the period 1999-2009. A benchmark of minimum acquisitions value of £50billion is used to ensure that only large acquisitions are included in the sample. Table 1 shows the list of the countries and the number of acquisitions. A total final of 120 acquisitions are used in the study with Italy, France, Spain, Germany and UK having more acquisitions.

The abnormal returns of the acquired bank samples were calculated using daily prices and cumulated using the market model of event study. The resulting abnormal returns are standardised to ensure that any country-effect variance is reduced or eliminated from the result. A two-stage regression is applied using the hierarchical regression. The dividend yield[17] is used as proxy for dividend policy while other dividend variables as well as the abnormal returns of the acquired banks constitute the independent variables.

[17] The use of the dividend yield is common in dividend policy studies; Johnson et al (2006), pang et al (2008) and other several studies have used yield as proxy for dividend policy.

Table 1. List of European countries and number of bank acquisitions

Country	**No of bank acquisitions**	**% acquisitions**
Spain	16	13
Italy	40	33
France	18	15
Germany	12	10
Austria	4	3
Slovenia	2	2
UK	12	10
Greece	6	5
Belgium	4	3
Cyprus	2	2
Portugal	2	2
Sweden	2	2
Total	**120**	**100**

We used the Rozeff model to formulate dividend regression with the following specifications:

$$\textbf{\textit{DivPolicy}} = \beta_0 - \beta_1 Beta_i + \beta_2 Liquidity_i - \beta_3 Insider_i + \beta_4 Tax_i - \beta_5 Cap\&FnSt_i + \beta_6 Size_i + \beta_7 Profit_i - \beta_8 Growth_i + \beta_9 CARs_i + \xi_i \quad (1)$$

Where :

β_0 - intercept term; β_1Beta - Estimated beta coefficient of the banks (with negative sign to indicate its expected effect)

β_2Liquidity – the availability of physical cash in the bank measured as the dividend/net cash operating,

β_3Insider – the percentage of insider shareholdings in the acquiring banks (with expected effect being negative);

β_4Tax – the total tax liabilities of the banks as well as the relevant tax ratios;

β_5CapFnSt – the bank's capital and finance structures measured by the Debt/Equity ratio (capital structure) while the finance structure is debt + equity/total assets;

β_6Size – the natural log of the total assets is used as the proxy for size of the bank;

β_7Profit – the profitability of the bank as measured by the ROE and EPS;

β_8Growth – the price earnings (PE), which also represents the market to book ratio (MBR) which is a proxy for Tobin's Q measure future growth and investment of the bank (with negative expected effect on dividend policy);

β_9CTSAR – the Cumulative total standardised abnormal returns (CTSAR) is a proxy for M&A;

ξ - error term

The event study methodology is used to capture the banks cumulative total standardised abnormal returns (CTSARs), which are the aggregate of all the abnormal returns (ARs).

The abnormal return (AR) is estimated using the market model as:

$$AR_{jt} = R_{jt} - \alpha_j - \beta_j * R_{mt} \quad (2)$$

Where:

AR_{jt} = Abnormal return on share *j* for each day *t* in the event window; R_{jt} = return on share *j* for each day *t* in the event window; α_j = intercept term for share *j* measured over the estimation period; β_j = slope term for stock *j* measured over the estimation period

R_{mt} = return on the market *m* for each day *t* in the event window

The AR was standardised to cater for the different degree of event impact. This is done by weighing the abnormal returns by the standard deviation. The purpose of the standardization is to ensure that each abnormal return has the same variance (Serra, 2002). Thus, by dividing each firm's abnormal residual by the standard deviation over the estimation period, each residual has an estimated variance of 1 and thus defined by the equation:

$$SAR_{jt} = \frac{AR_{jt}}{\sqrt{S^2 AR_{jt}}} \quad (3)$$

Where SAR_{jt} = SAR for firm *j* at time *t*. (SAR is standardised abnormal return)

AR_{jt} = AR for firm *j* at time *t*. $S^2_{AR_{jt}}$ = variance of the AR for firm *j* at time *t*.

Table 2. Univariate Statistics of Measures and Factors Affecting Dividend Policy

The table presents the results of the univariate statistics of factors affecting dividend policy. The variables are presented in different panels. Panel A consists of the bank profitability variables such as EPS and ROE. ThBoth variables being popular profitability measures in finance literature. Panel B consists of cumulative a abnormal returns of the acquired banks and risk while tax variables are in Panel C. Debt and capital structure are in Panel D, the PER, MBR which measure the bank growth are in Panel E. Bank size, which is composed of of the total assets and bank capitalisation constitute Panel F while ownership and liquidity, measured by the percentage of insiders in the board composition and the net to cash ratio, are in Panel G.

Variables	Variable Code	Minimum	Maximum	Mean	Standard Deviation	Coefficient of Variation
Panel A: Profitability						
Earnings Per Share	EPS	-4.26	41.2	3.224	4.929	1.528
Return on Equity	ROE	-42.8	45.92	10.942	9.489	0.867
Panel B: Cumulative total standardized abnormal returns	CTSAR	-48.14	29.02	-11.274	15.986	-1.418
Risk	Beta	0.6	1.55	1.108	0.236	0.213
Panel C: Taxes						
Tax	Tax	0.01	8.62	1.108	1.3	1.173
Pre-Tax Operation/ Average Assets	Pre	-5.56	67	1.055	5.207	4.935
Non operation item & T**axes**/Average Assets	Nonoptax/ Ass	-2.36	1.6	-0.134	0.389	-2.908
Panel D: Debt & Financial Structure						
Debts + equity/total assets	FNST	0.07	15.14	5.289	3.072	0.58
Total Debt/Equity	DebtEquity	1.34	16.17	5.761	2.842	0.493
Panel E: Growth & Investment						
Price Earning Ratio	PER	0.35	15.96	5.958	2.956	0.496
Market to Book Value Ratio	MBR	0.06	40.79	3.94	9.937	2.522
Panel F: Size						
Nat. Log of Total Assets	SIZE	0.01	7.43	0.42	0.98	2.33
Nat. Log Total Cap.	CAP	0.03	10.37	1.999	2.848	1.424
Panel G: Ownership & liquiidty						
% Insider holdings	INSIDER	0.07	68.5	30.116	21.617	0.717
Net Cash/Total Assets	Liquidity	-39.88	62.19	-0.14	8.034	-57.066

4 Results and discussion

The descriptive analyses presented in Table 2 shows that the CTSAR has a negative mean of -11.274 and a CV of -1.418. This result implies that the bank CTSAR is a less relative measure of dispersion in the dividend policy of the acquired banks. The EPS, Tax, MBR, SIZE, CAP and insiders have positive coefficient variation, indicating a close dispersion of the variables as measures of dividend policy.

The empirical result in Table 3 shows that liquidity variable appears consistently significant in the last 4 models. Model 5 shows a coefficient value of 0.325 and a t-statistic of 0.09, indicating that ***Liquidity*** (The liquidity is measured as the dividend / net cash operating. It denotes the cash available after all capital expenditures have been undertaken before

payment of ordinary dividend. The ratio does not take into account stock dividend payments as those do not require cash and previous period under/over provision payments) is significant in the dividend policy of acquired banks. Banks with less liquidity are less likely to maintain a pattern of dividend or create a dividend culture. Liquidity can be affected by the banks investment plans and growth potentials galvanised by its investment portfolios. This result supports La Porta et al (2003) and Gugler (2003) which assert that the liquidity and cash position of a firm are very fundamental in its dividend decision. Similarly, in a recent study, Anil & Kahoor (2008) also confirm that good liquidity position increases a firm's ability to pay dividend as those firms with unstable cash flows are less likely to have a regular dividend.

We find risk proxy; *Beta* a significant factor in the dividend policy of acquired banks with a coefficient of 0.538**.** The result indicates that the high-risk nature of large acquisitions influences their dividend formulations. Such risk factors are common among cross border acquisitions where cultural, managerial style and organisational differences pose more risk to the acquired entity. This result finds support from previous studies such as Blume (1980) and Massa & Zhang (2009) all of which found beta very significant in dividend policy.

Pang, et al (2008) posit that the dividend yield always follows the pattern of the beta and employ the coefficient of variation to measure the stability of the yield. This procedure highlights the importance of the beta variable.

Table 3. Model Summary of Hierarchical Regression of Dividend Policy: Acquired bank samples

The variables are hierarchically regressed into 5 different models. Model 5 provides the summary of the results. The coefficient values and t-statistics are reported and only 4 variables; liquidity, risk, finance structure and profitability variables are significant. The dividend yield is the dependent variable. All the other variables including CTSAR are not significant in the model results. The overall significance of the model was tested using the Wald test, which has a Chi-square ($\chi 2$) distribution. The likelihood ratio (LR) test statistic is calculated as $LR = -2(LogL_R - LogL_{UR})$, which follows $_x^2(k)$ distribution, where K the degrees of freedom equal to the number of restrictions.

Independent variable = Dividend yield					
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Insider	-0.017#	-0.077	-0.088	-0.098	-0.131
	(-0.033)	(-0.035)	-(0.043)	(-0.029)	(-0.008)
Liquidity	0.299	0.383*	0.362*	0.325*	0.325*
	(0.087)	(0.090)	(0.098)	(0.132)	(0.09)
Risk	0.452**	0.491**	0.523**	0.519**	0.538**
	(0.131)	(0.055)	(0.149)	(0.158)	(0.143)
Tax		-0.204	-0.275	-0.291	-0.208
		(-0.145)	(-0.057)	(-0.036)	(-0.04)
TaxToTass		-0.228	-0.214	-0.237	-0.277
		(-0.039)	(-0.041)	(-0.02)	(-0.062)
NonTAX		-0.084	-0.053	-0.028	-0.010
		(-0.03)	(-0.024)	(-0.004)	(-0.019)
FnSt			-0324*	-0.328*	-0.370*
			(-0.028)	(-0.042)	(-0.044)
TotalAss			0.017	0.003	0.009
			(0.055)	(0.075)	(0.04)
CapSt			0.001	0.025	0.060
			(0.005)	(0.034)	(0.045)
EPS				0.326*	0.355*
				(0.07)	(0.035)
ROE				-0.559**	-0.570**
				(-0.164)	(-0.144)
PE				-0.046	-0.056
				(-0.054)	(-0.046)
CTSAR					0.250
					(0.097)
Constant	1.677** (1.372)	1.539** (1.336)	2.513** (1.191)	2.603** (1.281)	2.893** (1.245)
Adj. R^2 .	0.228	0.419	0.489	0.480	0.483
Observations	744	744	744	744	744
Log likelihood	-246.01	-259.24	263.11	273.30	275.45
Wald Chi^2	224.14	221.07	213.12	203.22	201.89
L R test	15.03	16.43	16.78	17.53	18.41
P Value	0.000**	0.000**	0.000**	0.000**	0.000**

*Significant at 0.05 level, **Significant at 0.01 level. # Value for each estimator is the coefficient and t-statistics are in parentheses.

Risky, as a measure of dividend policy has been often produced mixed results. Casey and Dickens (2000)[18] found no significance in the role of beta in dividend policy of banks and challenged the earlier findings of Rozeff (1982). In the same vein, Chen, Grundy & Stambaugh (1990) investigated the cross sectional relationship between the dividend yield and market risk (beta) using the market and changing risk premium approaches and find both methods insignificant. Despite the above opposing views, most contemporary studies are in agreement that beta is an important variable in dividend decisions.

The finance structure of the acquired banks as measured by the (debt + equity) / total assets ***(FnSt)***[19]**,** has a negative coefficient of ***-0.370 and*** makes a statistically significant impact. This implies that the banks' finance structure is significantly important in the dividend decisions. When the equity/asset ratio of the bank increases, the dividend decision is reviewed to reflect the increase. Most past studies on lean support to this finding. Brunarski, Harman & Kehr (2004) and Pattenden & Twite (2008) investigated the optimal finance structure of firms and assert that the assets and equity composition of the finance and capital structures as well as its fixed and current proportions are very important components in its decisions on dividend.

Our profitability measure comprise of two variables, ***ROE*** and ***EPS***[20]. The **EPS** and **ROE** have significant values of 0.355 and -0.370 respectively. The earnings per share (EPS) relate the earnings generated by the bank which is available to the shareholders to the number of shares in issue. It is measured by the after tax profit less any preference dividend divided by the number of ordinary shares. The EPS measures the absolute return delivered to the shareholders. Its negative significant result in the regression indicates that growth in the EPS of the bank will attract growth in the bank's portfolio of investment and thus affects the amount available for dividend to shareholders. On the other hand, the positivity of the ROE is linked to profit generated through operations and which can boost dividend.

Thus, our regression results have identified three major variables in the dividend policy of acquired banks; the level of risk, liquidity position and the finance structure and the profitability of the acquired banks. These results are compared with a sample of non-acquired banks in the same countries. The regression results are presented in the Table 4 below. The results of the non-acquired samples are presented in 4 models, without the merger variable. The idea is to test if the acquired variables are also affected by the non-acquired samples. The liquidity, risk, financial structure, and profitability ratios are also significant.

The non-acquired banks *liquidity* has a significant negative coefficient of -0.358 indicating that availability of cash will spur non-acquired banks into diversifying their investments. This assertion supports the free cash flow hypothesis of Lang and Litzenberger (1989); Brush, Bomiley and Hendricks (2000) that firms over investment to convince shareholders of limited cash position for dividend and restore confidence in management. Unlike the acquired samples, liquidity of the bank puts the management under no pressure for dividend as the shareholders understand the strains and challenges of the banks after a strategic merger or acquisition.

Risk maintains a positive significance in both the acquired and non-acquired samples confirming that a high risk investment attracts an additional premium in dividend. Banks are quick to refine their policy in line with level of risk. Both samples appear to have same level of risk indicating that risk is pertinent component of the bank industry which reflects in their dividend policy. The *FnSt* i.e. financial structure and the profitability variables of the non-acquired banks show similar pattern of volatility in their dividend policy. The *FnSt* and *ROE* have negative significance of -0.425 and -0.566 respectively indicating that both have negative impact on the dividend policy. The banks financial structure is composed of the short-term borrowing, long-term debts and owner's equity; indicating that a primary source of a bank's funding whether debts or equity impacts negatively on its dividend policy. The positive significance of the *EPS* is an indication of the market forces and reaction to a bank policy. The sensitivity of the market reaction on the share value of the bank puts the bank at alert on formulating its policy.

[18] Much of Casey & Dickens (2000) findings was a cross examination of the earlier study by Rozeff. They used similar variables as Rozeff and found differences in the results. Three outstanding variables were particularly of interest in their findings (the firm's growth rate, insider, and beta) all of which were insignificant and opposite of Rozeff's findings.

[19] This is often confused with capital structure. It refers to the financing of the firm's assets based on the totals of the short-term borrowing, long-term debts and owner's equity. The capital structure is primarily focused on the long-term debt cum assets.

[20] Different measures of profitability have been used in profitability studies. The ROE and EPS are the most powerful indicator of financial performance of a firm (see also studies by Kumar & Sopariwala, 1992 and Kaufmann, Gordon and Owers, 2000). At the level of the individual firms, the ROE keeps in place the financial framework for a thriving and growing enterprise and drives industrial investment, growth in GNP, employment, government tax receipts at the macroeconomic level (Walsh, 2008). Apart from the ROE and EPS, the ROCE, returns on net worth and net profit margin are also profitability measures (See Chander and Priyanka, 2007).

Table 4. Model Summary of Hierarchical Regression of Dividend Policy: Non-acquired bank samples

The variables are hierarchically regressed into 4 different models. Model 4 provides the summary of the results. The coefficient values and t-statistics are reported and only 4 variables; liquidity, risk, finance structure, profitability and PE variables are significant. The dividend yield is the dependent variable. All the other variables are not significant in the model results. The overall significance of the model was tested using the Wald test, which has a Chi-square ($\chi 2$) distribution. The likelihood ratio (LR) test statistic is calculated as $LR = -2(LogL_R - LogL_{UR})$, which follows $_x^2(k)$ distribution, where K the degrees of freedom equal to the number of restrictions.

independent variable = Dividend yield				
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Insider	-0.215	-0.269	-0.263	-0.271
	(-0.124)	(-0.105)	(-0.128)	(-0.129)
Liquidity	-0.325*	-0.330*	-0.384*	-0.358*
	(-0.152)	(-1.241)	(-1.063)	-1.101)
Risk	0.525**	0.572**	0.584**	0.588**
	(1..274)	(1.031)	(1.123)	(1.135)
Tax		-0.211	-0.265	-0.201
		(-0.174)	(-0.341)	(-0.325)
TaxToTass		-0.222	-0.282	-0.293
		(-1.054)	(-1.132)	(-1.002)
NonTAX		-0.134	-0.139	-0.134
		(-0.002)	(-0.010)	(-0.058)
FnSt			-0.371*	-0.425*
			(-1.121)	(-1.124)
TotalAss			0.254	0.042
			(1.082)	(1.032)
CapSt			0.152	0.225
			(1.005)	(1.026)
EPS				0.349*
				(0.037)
ROE				-0.566**
				(-1.004)
PE				-0.563**
				(-2.054)
Constant	2.632#	2.957	3.501	3.587
	(1.204)	(1.030)	(2.017)	(2.561)
Adj. R^2 .	0.239	0.350	0.402	0.511
Observations	758	758	758	758
Log likelihood	174.59	189.36	168.52	189.52
Wald Chi^2	204.12	211.36	225.23	200.54
L R test	10.36	14.08	13.12	16.04
P Value	0.000**	0.000**	0.000**	0.000**

*Significant at 0.05 level, **Significant at 0.01 level. # the Value for each estimator is the coefficient and t-statistics are in parentheses.

The *PE* of the non-acquired bank samples has a significant but negative coefficient value of -0.563, indicating that the banks' growth and dividend are negatively related. The result supposes that increase in the bank growth would potentially drain the earnings available to shareholders. Gugler (2003) adds that increase in one causes a reduction in the other. The novelty of our study lies on the premise that previous studies do not test the *PE* variable on both samples of acquired and non-acquired samples. Studies such as Gaver & Gaver 2003, Grullon, et al 2002, Fama & French 2002 and Brunarski, Harman & Kehr 2004 have all observed the significance of banks growth in determining their dividend policy but failed to differentiate whether the same effect can be drawn on the acquired and non-acquired samples. As merged banks often pursue different growth strategy, it is therefore instructive not to generate results on dividend policy without recognising the structural differences in their operation and growth.

Conclusion

Studies in bank dividend policy have rarely focused on making analytical comparison of the factors affecting the acquired and non-acquired banks. The study focused on European banks during the period 1997 – 2009, a period marked by aggressive merger activities. The present study provides the link, by robustly testing the relevance and commonality of

common dividend factors as they apply to both acquired and non-acquired bank samples. The results have reveal that liquidity, risk, financial structure and profitability as common determinants of dividend policy. However, while the liquidity of non-acquired banks exerts significant negative impact on dividend policy, we find that the acquired banks' liquidity shows significant positive impact. Banks involved in M&A are often positioned to strategise their operation towards improving shareholders wealth. Available free cash flows are therefore channelled towards establishing a viable dividend policy. Whilst non-acquired banks tend to diversify their investment portfolio which drains available cash but increases their retained earnings.

The nature of the bank entails that investors would expect reasonable returns to compensate the risk inherent in the industry. The consistent positive significance of the risk variable in both samples explains the strong relationship and effect of risk on the dividend policy adopted by the bank. Banks therefore would consider the level of their risk while devising their dividend policy. While the EPS is significantly positive in both samples, the ROE is negative. Both profitability measures test different dimensions of the bank performance, as vary in impact. The earnings per share (EPS) relate the earnings generated by the bank which is available to the shareholders to the number of shares in issue. It is measured by the after tax profit less any preference dividend divided by the number of ordinary shares which is an aabsolute return delivered to the shareholders. Growth in the EPS indicates the progress and profit of the bank. It is a very powerful indicator of financial performance of a firm (Gordon and Owers, 2000). At the level of the individual firms, the ROE keeps in place the financial framework for a thriving and growing enterprise and drives industrial investment, growth in GNP, employment, government tax receipts at the macroeconomic level (Walsh, 2008).

However, we find PE of the non-acquired banks to be negatively significant to the dividend policy, which is not the case for acquired banks. The significance of the variable in the non-acquired banks indicates that growth in bank investments and future projects exert more aggressive impact on banks that are not acquired or less likely to merge. This finding is novel as previous studies on dividend policy do not make this distinction. The PE The ratio measures the future earnings growth of the bank. Increases in sales and total assets are also often used to measure growth (Easton, 2004). The argument is that when a bank grows, it requires capital for expansion. Such funds will thus reduce the available sum set outside for dividend but this is not necessarily the case in acquired banks.

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