

# DIVIDEND POLICY IN THE BANKING SECTOR IN G-7 AND GCC COUNTRIES: A COMPARATIVE STUDY

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## Abstract

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Dividend policy has been a puzzling question for many years. This study attempts to identify the key factors affecting it in the financial sector that have been neglected in the literature. Using panel data on 621 Group of Seven (G-7) banks and 68 Gulf Cooperation Council (GCC) banks, five main factors namely, banks' size, profitability, growth, leverage, and last year's dividend were empirically tested regarding their impact on dividend payout ratios. In addition to comparing the two economies descriptively, the researchers employed panel data analysis using multiple regression with random effects. The findings revealed that the dividend payout ratio for the GCC countries is higher than G-7 countries in every year of the examined period (2010-2015). Furthermore, for both G-7 and GCC banks, profitability and last year dividend had a significant positive influence while banks' leverage had a significant negative influence on the dividend payout. It was found also that banks' size is an important dividend determinant in the G-7 countries only.

**Keywords:** Dividend Policy, Dividend Signaling, Dividend Smoothing, Banking Sector, GCC, G-7

## 1. INTRODUCTION

A company's ability to initiate a dividend is a key aspect that is usually examined by shareholders and any potential investor (Kapoor et al., 2010). A solid dividend policy is a crucial consideration for investors who attribute importance to a firm's profit stability. Thus, improved dividends can act as a signal regarding the company's overall health as per signaling theory. Despite prior research attempting to address the enigma of dividend policy, the reasons behind the existence of different dividend policies among firms are still not fully explained (Black, 1976; Baker et al., 2001 and Dewasiri and Weerakoon-Banda, 2016). Various explanations have been proposed in the literature in order to comprehend corporate dividend policy. However, no consensus regarding the explanations provided has been reached among researchers except for an agreement that dividend policy is key and one of the most frequently-observed actions in corporations globally.

Without a doubt, dividend policy is still one of the most divisive and puzzling topics within corporate finance literature. Miller and Modigliani

(1958 and 1961) first set out the theoretical grounding (M&M) for research into dividend policy claiming that in perfect markets, dividend policy has no influence on the value of a company. They assumed that the investment of a company is fixed, therefore, irrespective of dividend policy, its entire current positive net value ventures will be funded. Higher ratios of dividend payout result in lower capital gains i.e. retained earnings, and vice versa, meaning that the wealth of shareholders is unaffected. Lintner (1956) opposed this theory and showed that companies in the US adhere to a dividend policy that is adaptive through subjecting their pay-outs to smoothing. Lintner noted that organizations preserve a target ratio of dividend pay-out and adapt their dividends policy in relation to this target. He also stated that companies follow a dividend policy that is stable and raise dividends over time in line with the target ratio of pay-out. Brav et al., (2005) further supported the idea of dividend stability and found that keeping dividends at a certain level is a huge concern for US firms in relation to investment decisions. Moreover, more recent empirical studies have provided support for the existence of dividend smoothing among

companies at different levels affected by different factors, e.g., size, age, ownership structure and tax regimes (Stevens and Jose, 1992; Lasfer, 1996; Gwilym et al., 2000; Block, 2008; Al-Yahyaee et al., 2010 and Javakhadze et al., 2014). On the other hand, other researchers, such as Basse, et al., 2014, concerning the European-banking industry, found that dividend smoothing is irrelevant empirically.

The bulk of this research was conducted on non-financial organizations in countries that are developed. This logically drives us to question whether these dividend policies based on stability are unique to developed countries or if they also have prominence in countries in which the institutional and economic characteristics and/or the tax regime differ significantly. Therefore, the purpose of this study is to analyze whether the banking sector in six emerging economies (GCC countries) smooths their dividends via employing the partial adjustment model in comparison to seven developed economies (G-7 countries). It evaluates whether banks in the GCC have a different dividend pay-out policy than banks in G-7 countries (e.g.: Italy, France, Canada, Germany, Japan, the UK, and the USA). A number of significant economic and institutional characteristics make the GCC a unique context in order to analyze dividend policy stability. Finally, the study will analyze the impact of factors that have been demonstrated to affect banks' dividend behaviors operating in developed economies. After this, the results from the emerging market firms sample will be compared with the sample from the developed banks during the same period in order for inferences to be drawn in relation to the significance of features of financial and institutional market development linked with decisions about dividends. This emphasizes the significance of institutional features in relation to dividend policy and provides an understanding of the role played by environmental and firm-relevant factors in formulating dividend policy.

This research is undertaken in an environment with an idiosyncratic feature that is no taxes levied on capital gains and dividends (Al-Yahyaee et al., 2014). A major component of the dividend puzzle is tax differentials. This varies greatly to the G-7 countries that traditionally have been taxing dividends at an increased rate in comparison to capital gains. The lack of taxation in the GCC thus might have an effect on the stability of dividends. For instance, Rozycki (1997) showed that managers are motivated to smooth dividend payments if they have personal income taxes. He provided evidence that the smoothing of dividends has increased a tax-paying investor's wealth by lowering the current value of their future anticipated income tax commitments. As a result, the fact that there are no personal income taxes in the GCC is thought to lessen the significance of dividend stability.

## 2. LITERATURE REVIEW

### 2.1. Theories of dividend policy

There are several theories that were developed to understand the reasons behind having different dividend policies among companies. These are the irrelevance theorem of Miller and Modigliani (1958), bird-in-the-hand, signaling, firm life cycle theory,

Agency cost theory, tax-preference theory, and transaction cost theory. This section, however, focuses on explaining only the main theories.

MM's theory states that investment policy and nothing else is what determines the wealth of stockholders in markets that have no friction. Additionally, pay-out choices and leverage have no influence on the value of a firm, particularly if a value-maximizing programme of investment is in place (see, e.g., Allen and Michael (2003, p.339)). In other words, when considering various pay-out and beverage choices, the firm is basically slicing a pie which is fixed (in terms of investment cash flows) into various pieces, in which each individual value, in relation to the frictionless markets, inevitably add up to the whole value generated from the underlying policy of investment. Since the development of the M&M theorem, many alterations have been made to it and further empirical research undertaken in relation to it. Modigliani (1982) later admitted that the initial irrelevance theory's assumptions could not be applied in reality and were too abstract. A minor correction was made in 1963 by the same economists for including tax savings into the model, which was related to the rise in levels of debt. Moreover, Modigliani (1982) suggested that the firm's value would be reduced by dividend payouts, although the impact would actually only be slight if the rate of tax was capitalized at a risky rate instead of a prevailing market rate. Further, the tax clientele influence needs to be considered, for instance, if the investors' tax brackets increase, they would consequently invest larger amounts in portfolios with shares paying out low dividends.

In contrary to MM's theory, the bird-in-hand theory demonstrates that shareholders tend to be averse to risk and thus prefer not to wait a long period and have access to instant dividends (Gordon, 1959). Therefore, in the future, it is anticipated that dividends will be more desirable over capital gains, particularly to those who possess a risk-averse attitude. Consequently, metaphorically, a bird in the hand dividend is preferable to a bird in the bush capital gains. Based on that, Bhattacharya (1979) further claimed that stockholders are open to paying a share premium for increased dividend shares.

Finally, Miller and Rock (1985) suggested that costly dividends can be utilized as signals in the case of asymmetric information among internal management and shareholders. Therefore, this signaling could aid with determining good companies who possess potential future earning power from firms who do not (bad firms). If this signaling works successfully, then, in turn, there should be a positive influence on the share price. This theory's basis comes from Lintner's study (1956), which identified that dividends were not only dependent upon the cash necessary to fund projects on a short-term basis, yet further, they illustrated the beliefs of management in relation to the sustainability of the firm's earnings on a long-term basis. Therefore, managers usually initiate or raise pay-outs only if they believe that future earnings will be high. Several sources of empirical evidence suggest that investors regard dividend initiations and increase favorably; hence, there tends to be an increase in firms' stock prices close to the time initiations are announced (Miller and Rock, 1985; Gunasekarage and Power, 2002; and Al-Kilani et al., 2012). A recent study by Jabbouri and Attar (2017)

also asserted empirically that companies listed on Casablanca Stock Exchange, which pay high rate of dividend, signal a low level of their agency costs as well as low level of information asymmetries that reflects their financial efficiency.

## 2.2. Development of research hypotheses

A company's dividend policy is considered a significant issue in the corporate finance literature not only for the company itself (through its influence on e.g., capital structure, cash flow, value, and growth rate) but also across a wide spectrum of stakeholders, market activities and economic state. Accordingly, scholars have conducted many studies trying to understand theoretically and empirically the complexity of this phenomenon by examining it in association with a wide range of factors. Some of them are related to the company while others are linked to environmental and institutional variables surrounding companies. Company dividend policy represented mainly by dividend payout ratio has been examined in respect of e.g., firm size, growth rate, leverage, profitability, lagged dividend, national culture, creditor's rights, gender diversity and ownership structure (Gugler, 2003; Naceur et al., 2006; Shao et al., 2010; Al-Kuwari, 2009; Thanatawe, 2011; Ansary and Gomaa, 2012; Zameer et al., 2013; Malkawi et al., 2014; Ahmed, 2015; Vo, 2015; AL-Dhamari, et al., 2016; Al-Amarnah et al., 2017 and Byrne and O'Connor, 2017). The dividend payout ratio is the dependent variable employed in this research. Further, the formula provided by Gill et al., (2009) was utilized by which dividend pay-out ratio = dividend per share/ earning per share (EPS). Moreover, this same formula has been employed in other research (Rozeff, 1982; Lloyd et al., 1985; Amidu and Abor 2006). Due to data availability factors, especially regarding GCC, the researchers restricted the study to examine the impact of five explanatory variables that are considered the main influential factors on dividend policy according to the literature review. A mix of financial and non-financial factors was examined in the study. They are related to the characteristics of the companies studied, namely, firm size, leverage, profitability, growth, and previous year's dividend payment.

### 2.2.1. Firm size

A number of studies have examined the effect of firm size on the dividend-agency relationship. They identified that firm size was a significant explanatory variable, as bigger companies tend to raise their dividend pay-outs in order to lower agency costs (Holder et al., 1998; Baker et al., 2001; DeAngelo et al., 2006; Denis and Osobov, 2008). Fama and French (2001) stated that larger firms disseminate an increased volume of their net profits as cash dividends than smaller firms do. Ringane and Makoni (2014) identified the factors affecting the dividend policy of companies listed on the JSE in South Africa and found firm size as one of the positively influential factors. Furthermore, in a study applied to 646 companies in GCC, Kumar and Sujit (2016) found that larger firms had higher levels of dividend payout than smaller companies. They attributed these results to the fact that large size firms tend to have higher retained cash flows. However, few other studies concluded a negative

association between firm size and dividend payout ratio. Ahmad et al. (2018) supported such a negative relationship between size and dividend yield in Euronext 100 index. They justified their findings by the fact that large firms often need an extra fund for expansion leading to decreasing their dividend on expense of the retained profit. Information asymmetry is higher in larger firms because of the dispersion of ownership, hence lowering the shareholders' capacity to regulate the firm's internal and external activities, leading to ineffective management control. The solution here can be paying out large dividends, which increases the necessity for external funding leading to enhanced monitoring of larger firms due to the presence of creditors. In this context, Sawicki (2005) demonstrated that dividend pay-outs can indirectly aid with the monitoring of managers' performance in larger companies. There are various measurements of firm size, for example, total employment, total assets, total revenue, and capitalization. In this research, the natural logarithm of companies' total assets is utilized as a measure for size. This measure has commonly been employed by earlier studies such as Gill et al., (2009). Based on the aforementioned discussion and in line with prior empirical studies, the company's size is anticipated to have a positive correlation with dividend pay-outs. Thus, the hypothesis in relation to firm size is devised:

*H1: Banks' size has a significant positive impact on the dividend policy.*

### 2.2.2. Leverage

A firm's capital structure comprises of both debt (e.g., loans and bonds) and equity financing (e.g., shares). The debt to total assets ratio is a financial ratio that signifies the comparative percentage of debt utilized to fund the company's assets. Most of the studies examining the impact of this factor concluded its significant negative association with the rate of dividend payout (e.g., Pruitt and Gitman 1991; Al-Twaijry, 2007 and Jabbouri, 2016). Several reasons were offered by the scholars for justifying the existence of such a relationship. Firms who have increasing debt rates usually have a lower dividend payout ratio to be able to cover the interest of their debt (Gugler and Yurtoglu, 2003 and Afza and Hammad, 2011). Additionally, companies relying on debts to fund their projects usually suffer a high level of financial risk making the option of external funding costly. Therefore, they become more reliant on internal funds i.e., retained profit (Faccio et al., 1996). Another interpretation is related to the debt covenant that sometimes limits the ability of a borrowing company to pay-out dividends (Mather and Peirson, 2006). Leverage is one of the factors observed excessively in terms of its relationship with companies' dividend policy. Older studies, such as Lloyd et al., (1985) and D'Souza (1999) also indicated that highly levered firms aim to maintain their internal cash flow for satisfying duties, rather than sharing available cash with shareholders and safeguarding their creditors. Lee (2014) examined the impact of banks' characteristics in Korea on their dividend payout policy. The research found that banks with higher debt rates usually have a weak capital adequacy leading to paying fewer dividends. Recently, Jabbouri (2016) analyzed

dividend policy in the Middle East and North Africa (MENA) and identified the main determinants affecting it including financial leverage. The study employed a sample of firms listed in 11 stock markets of 10 MENA countries over the period between 2004 and 2013. The study revealed, similarly to the literature, that leverage has a sign opposite impact on companies' ability to pay out dividends to their shareholders. Finally, Al-Sabah (2015) found also a negative influence of companies' leverage on their dividend payout ratio in Kuwait. In line with the arguments above, the following hypothesis can be devised for further examination:

*H2: Banks' leverage has a significant negative influence on the dividend policy.*

### 2.2.3. Profitability

A number of surveys have provided useful insights into which factors financial managers believe to be the most significant in deciding upon the dividend policy of their firm. Profitability is one of the factors that have been tested extensively in terms of the dividend policy of both financial and non-financial institutions. Almost all the previous studies confirmed the significant positive influence of bank's profitability on its dividends payout. Farrelly et al., (1986) surveyed 562 firms with so-called "normal" dividend policies and established that the key determinants of dividend were the expected level of future earnings and past dividends patterns. In addition, Pruitt and Gitman (1991) demonstrated that key effects on the volume of dividends paid out were the year to year variability of earnings, current and past years' profits, and the growth in earnings. Baker and Powell (2000) identified the key factors impacting on a company's dividend policy including the pattern of past dividends and the level of current and anticipated future earnings. Another study in the U.S. financial sector conducted by Abreu and Gulamhussen (2013) reported a positive impact of 462 banks' profitability on their dividend payouts before and during the 2007-2009 financial crisis. In Asia, both Lee (2014) in Korea and Ahmad and Muqaddas (2017) in Pakistan also found evidence supporting the significant positive role played by profitability on banks' dividends payout ratio. Finally, a recent study by Baker et al., (2018) in Turkey asserted also that profitability represented by current and future earnings affect significantly the dividend policy. In line with the above, profitability is anticipated to be a major determinant of banking dividend policy. In order to test this hypothesis, net income to the total asset (return on assets) is employed as a measure of the profitability of a firm. The relationship hypothesized among dividends and profitability is positive. Therefore, the following hypothesis can be devised:

*H3: Banks' profitability has a significant positive influence on the dividend policy.*

### 2.2.4. Growth

Miller & Modigliani (1961) proposed that corporate investment and dividend payout decisions are independent in perfect capital markets. Yet, when market imperfections are present, such as agency costs, taxes and flotation costs, both investment and dividend choices may be closely linked or interdependent. That is because when a firm decides

to pay out dividends, it is effectively forsaking a comparatively cheap indigenous source of financing. This means that the firm will need to involve other sources of finance such as issuing a new equity or a debt security, which are considered more risky and high-cost, for any expansion opportunity. Investments and dividends are in competition for restricted and lower-cost internal funds (Elston, 1996). To test if opportunities for investment affect dividend policy, a suitable proxy needs to be selected. A number of studies have found that the rate of growth was frequently utilized as a proxy variable for measuring the growth opportunities in regard to the relationship between dividend and investment policy. The rate of growth is measured in the literature mainly by looking at the annual historical growth of total assets/sales (Boldin and Leggett, 1995 and Theis and Dutta, 2009) or through calculating M/B ratio i.e. market to book value of the equity (Collins et al., 1994 and Theis and Dutta, 2009). This study, however, adopted the second tool (M/B ratio) due to data availability in respect of GCC. Higgins (1972) argued that a firm's necessity to fund growth opportunities has a negative correlation with a payout ratio. Lloyd et al., (1985) and Amidu and Abor (2006) also identified a significant negative correlation between historical sales growth and dividend payout. Similarly, Lee (2011) found that future opportunity of growth affects negatively the ability of national Korean banks to pay dividend. Finally, Abreu and Gulamhussen (2013) concluded that banks with a low growth rate in U.S. usually pay more dividends to their shareholders. Hence, a negative correlation between sales growth and dividend pay-outs is anticipated. The following hypothesis can be suggested based on the discussion above:

*H4: Banks' growth has a significant negative influence on the dividend policy.*

### 2.2.5. Previous year's dividend payment

Dividend stability means there needs to be constancy in dividend payments. Prior research has proposed that managers normally favor a dividend that is stable more than one which fluctuates. Lintner (1956) analyzed managers' motives and attitudes in relation to dividend policy. He examined the dividend decision-making process through follow-up interviews with 28 US managers and formulated a model in order to clarify changes in the dividend. Lintner tested his model for the period from 1918 to 1951. The results supported the conclusion reached from the interviews, that managers favor dividends that are stable and that slowly increase to the appropriate level of target dividend pay-out, and further, managers endeavor to avoid cuts in the dividend. The previous year's dividend payment is regarded as the chief indicator of a company's ability to pay out dividends (Lintner, 1956) since it is presumed that the managers will strive to keep dividend policy stable. Moreover, the hypothesis of information asymmetry proposes that dividend policy is "sticky" or exhibits a tendency to stay at the previous dividends' level (Baskin, 1989). Ahmed and Javid (2009) evaluated 320 non-financial firms in terms of their dynamics and determinants of dividend payout policy. The findings provided solid backing for the fact that firms depend on both past dividends per share and current earnings per

share in order to choose their dividend payments. Yet, the dividend is normally more susceptible to current earnings than previous dividends. Thus, a positive correlation between LDPS and the current year's dividend is anticipated. The hypothesis that follows can be proposed in response to the discussion above:

*H5: Banks' last year dividend has a significant positive influence on the dividend policy.*

### 3. RESEARCH METHODOLOGY

This research's focus is on the investigation of the determinants of banking dividend policy in the G-7 and GCC countries. When selecting which stocks to include, key criteria were if the stocks were listed in the GCC or G-7 stock markets as well as the availability of the required financial data (e.g., dividend per share, total assets and liabilities, net income and so on) regarding each bank. Due to the fact that stocks that did not meet the identified criteria were excluded, the sample is quite homogenous and therefore, the homogenous sampling approach is going to be followed (Saunders et al., 2012). The study's sample was, therefore, able to include 621 banks listed in G-7 countries and 68 banks listed in GCC countries.

**Table 1.** Sample of the study

GCC		G-7	
Country	Number	Country	Number
Bahrain	10	Canada	9
Kuwait	11	France	15
Oman	8	France	11
Qatar	9	Italy	18
Saudi Arabia	11	Japan	90
United Arab Emirates	19	United Kingdom	12
		United States	466
Subtotal	68		621
Total		689	

In order for the research to be conducted, we employed a huge volume of quantitative data and the primary source was Reuters Database. OLS regression analysis is employed for evaluating the relationship between variables using the Stata. A panel data OLS regression can be explained as:

$$y_i = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_nx_n + \epsilon \quad (1)$$

where the dependent variable is Y, explained by a constant ( $\beta_0$ ), and there is a particular relationship among the independent variables ( $x_n$ ). The error term ( $\epsilon$ ) encompasses the variance of the unobserved effects. Longitudinal, also referred to as a panel data, is when data is observed in a number of various periods and on the same units (Kennedy, 2008). In this research, the financial information covers periods (2010-2015) regarding both G7 and GCC. For such panel data estimation methods need to be employed such as pooled ordinary least squares, the fixed effects model and random effects model. If no individual heterogeneity exists, i.e. there is no cross-sectional or time specific effect ( $\epsilon=0$ ), then ordinary least squares are able to provide consistent estimation to utilize panel data. If in the panel data, individual effects are not zero, heterogeneity can affect the assumption of

homogeneity and non-autocorrelation (Kennedy, 2008). Therefore, biased and inconsistent estimators may be provided by the model. If this occurs, the random and the fixed effects models provide avenues to deal with these issues. The variation between the random and fixed estimators and ordinary ones is that the generalized least squares estimator from the former will remain effective in the presence of heteroscedasticity and autocorrelation whilst the ordinary least squares will not. Using Breusch-Pagan test whose null hypothesis is  $\epsilon=0$  i.e. long-run homogeneity among the countries in the sample, the results show that H0 could be rejected. On this basis, the most suitable estimator is either random or fixed.

To determine which estimation model suits the available data most appropriately, Hausman's specification test is utilized in order to establish whether the fixed or random effect models are favorable. The result was in favor of using random effect estimator. Yet, Kennedy (2008) claimed that the random model can lead to reduced volatility and more accurate estimations than the fixed model. This is grounded in the fact that the random model uses the panel data's information so that the independent variables' influence on leverage can be emphasized. An additional advantage with the random model is that a lesser degree of freedom is lost as there are fewer parameters to estimate.

### 4. RESEARCH FINDINGS AND DISCUSSION

The descriptive analysis in table 2 is based on the average value for each variable in each year for the two groups, i.e. G-7 and GCC countries. Regarding dividend payout policy, the table demonstrates that the dividend payout ratio (DPR) for the G-7 countries is lower than for the GCC countries in all periods of study, for example, the DPR for the G-7 countries is 28.6% in comparison with 41.9% for GCC countries in 2015. This clearly shows that the average DPR in the developed countries is lower compared with emerging countries. Two potential factors may explain this difference in the DPR. First, that the banks in the emerging countries have a higher growth rate, for example, the M/B ratio, which is measured by the opportunities for growth, is higher for the GCC countries. Second, banks profitability, measured by ROA, is higher in the GCC countries than G-7 countries, which makes the GCC banks more able to pay higher dividend payouts compared with the G-7 countries. Third, the leverage ratio for the GCC banks is lower in comparison to the G-7 countries.

**Table 2.** Descriptive Analysis

Group	Year	DPSS	DPR	ROA	M/B Ratio	Leverage %	Total Assets (m \$)
G-7	2010	0.930	24.840	.555	1.019	89.876	66,868
	2011	1.261	23.447	.656	.830	90.198	72,135
	2012	1.415	24.981	.814	.977	90.068	75,228
	2013	1.526	25.915	.910	1.132	89.947	72,406
	2014	1.494	28.057	.947	1.105	89.723	70,415
	2015	.781	28.603	1.044	1.126	89.694	66,056
GCC	2010	.187	35.895	1.185	1.608	83.310	16,442
	2011	.177	36.436	1.654	1.418	82.944	17,891
	2012	.217	41.179	1.662	1.310	83.617	83,617
	2013	.193	36.284	1.615	1.566	83.541	21,931
	2014	.194	39.390	1.660	1.572	85.569	24,439
	2015	.185	41.915	1.476	1.220	85.887	26,050

A lower leverage ratio means less interest payment, which leads to a higher net profit available for dividend distribution. Lastly, Table 2 clearly shows that the G-7 banks are larger than GCC banks, for example, the average total assets for the G-7 banks in 2015 is \$66 billion in comparison to \$26 billion for the GCC banks in the same year. However, Table 3 will analyze the correlation among the identified variables.

Table 3 shows the level of correlation among the research factors. Relatively low correlation can

be seen among the explanatory factors with the highest correlations are between size and leverage (.279 for G7 and .255 for GCC), size and last year DPR for G7 (.261) and ROA and size for GCC (.218). This indicates that there is no multi-collinearity problem in the samples. For robustness purposes, the researchers computed the variance inflation factors (VIF) for every independent factor as in table 4. The results confirm what is found earlier, which is the absence of multi-collinearity issues with the VIF value of the whole factors being less than 1.4.

**Table 3.** Correlation matrix

	G7						GCC					
	DPR	Size	ROA	M/B	Leverage	Lag Leverage	DPR	Size	ROA	M/B	Leverage	Lag Leverage
DPR	1						1					
Size	.262	1					.095	1				
ROA	.203	.026	1				.319	.218	1			
M/B	.157	.003	.177	1			-.029	.081	.205	1		
Leverage	-.099	.279	.217	.001	1		-.009	.255	-.078	.153	1	
Lag DPR	.310	.261	.201	.181	.121	1	.298	.211	.195	.211	.174	1

As per the result of Hausman test, we report and discuss the outcome of panel data regression with random effects to test the influence of banks' size, leverage, profitability (ROA), growth (M/B ratio), and last year's dividend on the dividend payout ratio (DPR) (H1- H5) in terms of all of the sample, G-7 and GCC. Standard errors (SE) are also computed, and asterisks are used to report the level of statistical significance for each independent factor. The results in Table 4 show that the influence of banks' size on DPR is significant for the entire sample ( $\beta = 1.130$ ,  $p < 0.01$ ) showing that larger banks pay higher dividends compared to smaller banks. Hence, H1 is supported. This association is also true for the G-7 banks ( $\beta = 1.951$ ,  $p < 0.01$ ) and is consistent with several empirical studies, for example, DeAngelo et al., (2006); Naceur et al., (2006); and Ajmi and Hussain (2011), whose results revealed that in comparison to smaller firms, bigger firms share a larger amount of their net profits via cash dividends. Moreover, Sawicki (2005) found that indirectly, dividend payouts can aid with the monitoring of managers' performance in bigger firms. Thus, in bigger firms, information asymmetry rises because of the dispersion of ownership, reducing the capacity of shareholders to be able to regulate the firm's internal and external activities. This leads to the insufficient supervision of management. The payment of large dividends can provide an answer to such an issue. That is because that a distributing a higher rate of dividends results in an increase in the necessity for an external funding, and the latter in turn leads to an extra monitoring applied on the borrowing firms by lenders (e.g., banks). Other research has indicated a positive relationship between firm size, dividends, and transaction costs. Holder et al., (1998), for example, revealed that bigger companies tend to have greater access to the capital markets and hence are able to raise funds at a reduced cost more easily, thus permitting them to pay larger dividends. This exemplifies a positive link among dividend pay-outs and the size of the firm. However, the result for the GCC banks was insignificant ( $\beta = 0.517$ ,  $p > 0.01$ ), which indicates that the size of banks is an important dividend

determinant in the G-7 countries but not the GCC countries. The latter, however, does not concur with the study of Abu-Manneh (2014) who found a significant positive influence of company size on DPR for companies listed on Abu Dhabi Stock Exchange (ADX). This inconsistency could be attributed to the fact that this study observed only non-financial companies, which is not the case in our study.

**Table 4.** Random effects regression Analysis of Panel data 2010-2015

The entire sample					
	Coef.	SE	P	Level of Sig	VIF
Size	1.130	0.65	0.001	**	1.12
ROA	2.014	0.36	0.000	**	1.21
M/B	1.156	1.25	0.003	**	1.11
Leverage	0.277	3.63	0.000	**	1.02
Lag DPR	0.647	0.85	0.000	**	1.30
G-7					
	Coef.	SE	P	Level of Sig	VIF
Size	1.951	0.83	0.009	**	1.32
ROA	1.867	0.45	0.000	**	1.25
M/B	1.363	2.75	0.001	**	1.01
Leverage	0.228	3.83	0.004	**	0.99
Lag DPR	0.650	0.65	0.000	**	1.22
GCC					
	Coef.	SE	P	Level of Sig	VIF
Size	0.517	0.89	0.123		1.02
ROA	3.702	0.64	0.001	**	1.18
M/B	3.161	2.13	0.042	*	1.12
Leverage	0.425	4.1	0.036	*	1.01
Lag DPR	0.581	0.34	0.000	**	1.25

Notes: SE - Standard errors. \*\* Significant at 1% level of significance and \* Significant at 5% level of significance

The results also clearly show that ROA, in both G-7 and GCC, has a significant positive impact on the DPR ( $\beta = 1.867$  and  $\beta = 3.702$  respectively with  $p < 0.01$ ) indicating that more profitable banks pay out higher dividends. The pecking order theory gives some reasons for the interconnection between dividend payout and profitability, as it takes into

account the cost relating to the issue of debt and equity financing Jensen et al. (1992). Firms that are less profitable find it harder to pay out dividends and, firms that are highly profitable are in a better position to generate funds to pay dividends and fund investments internally Myers and Majluf (1984). Lintner (1956) conducted research that involved consultation with 28 well-established US firms. He concluded that firms' dividend patterns are affected by the current year's profitability and the past year dividends. Pruitt and Gitman (1991) did a survey with US firms' financial managers and established that profits have an impact on dividend pay-out.

If investments are profitable, a company which experiences growth from investments tends to pay reduced dividends and pay securities dividends instead since it focuses on profit retention for funding its ventures. The residual theory proposes that companies with larger opportunities for growth have a low dividend payout ratio in comparison to firms with limited or no growth. Such companies usually decide to keep as much as they can of their annual earnings as retained profit for meeting the financial demands of their investments. In table 4, the results for the GCC banks show a negative impact of the M/B ratio on DPR ( $\beta = -3.161$ ,  $p < 0.05$ ) as hypothesized. This means that banks in GCC with a high M/B ratio are overvalued in the market. That happens usually when investors are willing to pay more for than what those banks are actually worth in terms of book value (net assets) due to higher rates of growth. This itself acts as a motivation for expansion through investing in more projects. The result is also in line with the life-cycle theory that is banked at the growth stage of their lifecycle usually possess less retained earnings or experience a cash flow problem, therefore they are not able to share more dividends with their shareholders. On the other hand, the results of the G-7 banks show a positive impact of the M/B ratio ( $\beta = 1.363$ ,  $p < 0.01$ ), which is inconsistent with the hypothesis H4. This finding could be justified by the fact that these banks might be using the dividend pay-out to indicate to the market regarding their growth and future investments, as according to the signaling theory. Banks operating in a market with an extremely high level of competition, such as G7, tend to pay a higher rate of dividends during the period of high financial performance to encourage more investors to demand their shares as well as the current shareholders to stay. They do that as a means to indicate their high performance to the market.

Regarding the leverage variable, table 4 clearly revealed that leverage has a significant negative influence on the dividend pay-out in both G-7 and GCC banks ( $\beta = -0.228$ ,  $p < 0.01$  and  $\beta = -0.425$ ,  $p < 0.05$  respectively). As a bank that is highly leveraged is anticipated to return increased amounts in order to reinforce its equity base. Highly levered banks have increased debt and interest demands to meet, therefore, they are open to a higher potential of paying out a lower ratio of dividend pay-out. In accordance with Jensen (1986), the reason why firms that are highly leveraged pay a reduced ratio of pay-out is that these firms are overseen by debt holders who decrease the power of management to pay out dividends. Further, Jensen proposed that levered companies can take the dividend payout ratio from the sum of agency costs. This is consistent with the

research of Kaźmierska-Jóźwiak (2015) who reported results in terms of non-financial companies listed on Warsaw Stock Exchange. Lastly, the lagged dividend pay-outs are proven to have a significant and positive influence on the current level of dividend ( $\beta = 0.650$  and  $\beta = 0.581$  respectively with  $p < 0.01$ ), which is consistent with partial adjustment models. As these models originate from the life-cycle theory, which suggests that companies actually smooth dividends in the same way as earnings smoothing. The result is consistent with the research of Pal and Goyal (2007) who observed the dividend policy of banks listed on National Stock Exchange (NSE) of India.

Overall, the results of the regression analysis were similar in both G7 (with capital gains tax) and GCC (without capital gains tax) samples except for the factor of company size that was insignificant regarding GCC. This finding is consistent with a recent study by Khan et al. (2017) who reported that dividend tax does not significantly affect the dividend policy of companies, however, their study was restricted only to non-financial companies listed on Pakistan Stock Exchange.

## 5. CONCLUSIONS, LIMITATIONS AND IMPLICATIONS

Dividend policy is seen as one of the most significant decisions in relation to corporate finance as it affects choices in this area of decision-making. Since the 1950s, dividend payouts have been subject to investigation, starting with Lintner (1956), who first suggested dividend adjustments or partial adjustments. Numerous threads of literature have tried to provide explanations of dividend payouts, for instance, irrelevance theorem, signalling dividend theory, agency and life-cycle theories (Miller and Modigliani, 1958; Gordon, 1959; Miller and Modigliani, 1961; Jensen and Meckling, 1976; Bhattachary, 1979; Rozeff, 1982; Grullon et al., 2002). Dividend policy within the banking sector is increasingly complex where there are numerous parties involved. Regarding the principle side, there are creditors, shareholders, and depositors. On the agent side, there are also regulators and internal managers as well as the whole of society who are open to any grave repercussion due to banks' failures.

Recent research also analyzed various company-specific factors that could influence levels of dividend policy (Gugler, 2003; Naceur et al., 2006; Ansary and Gomaa, 2012). Of the standard factors examined, there are firm size, profitability, growth and life-cycle measures, with mixed results reported regarding these. Using a panel regression model, this study has tried to determine the factors affecting the GCC and G-7 banking sector's dividend policies, namely, banks' size, profitability, growth, leverage, and the last year's dividend. The results of the current study indicate that the dividend payout ratio for the G-7 countries was lower than GCC countries in every year during the period of study (2010-2015), for example, the DPR for the G-7 countries it was 28.6% in comparison to 41.9% for GCC countries in 2015. In addition, GCC banks demonstrated higher growth opportunity and profitability, while G-7 banks had higher leverage and a larger size. Furthermore, the findings of the regression analysis indicated that banks' size in the G-7 sample had a

significant positive impact on the DPR, showing that larger banks paid out higher dividends compared with smaller banks, while banks' size in the GCC sample was insignificant indicating that banks' size is an important dividend determinant in the G-7 countries only. Moreover, banks' profitability was shown to have a significant positive impact on the DPR, indicating that banks that are more profitable pay higher dividends, and the profitability results held for both G-7 and GCC banks. Consequently, it can be said that banks' leverage has a significant negative impact on the dividend pay-out in both G-7 and GCC banks. In addition, the last year's dividend always has a significant positive influence on the banking dividend payout policy.

This study has both theoretical and practical relevance. Given the important gap existing in the dividend literature related to the banking sector, this study helps in minimizing such a gap both empirically and theoretically. It helps in providing an up-to-date discussion regarding the status of dividend policies in emerging economies i.e. GCC in comparison to the developed world i.e. G-7. For managers, our results are helpful in improving their understanding of the process of dividend decision making which might lead to better-informed decisions. Furthermore, such a study is useful for current and potential investors who are always

interested in the behavior of banks' dividend payouts which is often complex to grasp.

Similar to previous studies, our research has limitations. As banking itself is a crucial area, there are a number of factors that need to be considered, such as regulation and default risk. Such factors were not employed in this study and therefore, it is to be anticipated that studies in the future may focus on them. Additionally, the study sample can be expanded to encompass, for example, banking firms from Asia, Africa, and other developed countries. This could provide a fascinating comparative analysis especially if they are in similar stages of development. This research needs to be extended also to include additional portfolios of the banks. The existing banking literature has not yet examined how competition affects dividend pay-out, and thus, the risks associated with this. Diverse literature exists that discusses the connection between the risk-taking, competition, and stability of the banking sector, yet the correlation between competition, risk, and dividend payout have not previously been studied. Hence, further research should expand on the analysis of the influence of competition with regard to the dividend payout levels in the banking sector.

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