

DIVIDEND BEHAVIOUR: DIFFERENT MARKET SEGMENTATIONS

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ABSTRACT

This research explores the dynamics of dividend behaviour of Lintner's model in three distinct regimes with three different market segmentations, namely Singapore, Malaysia, and Saudi Arabia. In particular, Singapore, Malaysia, and Saudi Arabia each have some interesting features that make this study suitable for policy recommendations to other Asian countries and countries in other parts of the world, especially in the same market segmentation. Therefore, it will be intriguing to see if these three countries adopt stable cash dividend policies, whether they smooth out dividends, and to determine the speed of adjustment of dividends towards a long-run target payout ratio. The study used the top 100 listed firms in each country using the Generalised Method of Moments (GMM) for the period of 2007 to 2016. The results clearly demonstrate that Saudi Arabian firms have the smoothest and most stable dividend payout, followed by Malaysia which has a moderate speed of adjustment suggesting fairly stable dividends arising from a positive change in earnings, while Singapore has a significantly high speed of adjustment indicating no smoothing. Based on these findings, Saudi Arabian firms practise smoothing and have stable dividends. Although a great deal of research has been done using a partial adjustment model, no evidence has been provided on the three different markets. Most of the research focused on developed markets rather than emerging ones. This could therefore contribute to the different legal and statutory systems that exist in these countries. The difference hinders the overall view of the results obtained from the three markets.

KEY WORDS

Lintner's model, speed of adjustment, target payout ratio, partial adjustment model, Generalised Method of Moments (GMM).

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Introduction

One of the more noteworthy and intriguing topics in financial literature is dividend policy, particularly in the context of corporate financial decisions. Although it is not a new research area in corporate finance, somehow financial economists and other researchers still pay attention to the highly debated issue that is the dividend puzzle, since there remain contradictions in hypotheses, theories and enlightenments for dividend policy (Baker and Powell, 2000).

Past models only focused on identifying the equation of dependent and independent dividend policies rather than the speed of adjustment (SoA) and target payout ratio (TPR). In 1956 John Lintner developed the speed of adjustment equation, which stated that dividend policy is inclusive of a speed parameter in which current dividends are adjusted to the target. The theory developed was based on two important foundations that are observed in dividend

policy. The first is that firms often set long-term dividend-to-earnings ratio goals depending on the number of positive net present value projects they have. The second is that an increase in earnings is not necessarily sustainable, and dividend policy does not adjust until managers foresee a new standard of sustainable earnings. The speed of adjustment in dividend policy is an estimate of how quickly the target dividend ratio is changed in response to the change in company earnings (Gárdängen, 2014).

This study attempts to fill the gap by examining the speed of adjustment (SoA) and target payout ratio (TPR) for dividend behaviour, which has received less attention by previous research, thus offering an impetus to understand the market evaluation of dividend payments and thereby contribute to a greater view of the dividend policies of countries such as Singapore (developed), Malaysia (developing) and Saudi Arabia (emerging), given that these countries have different regimes and financial markets.

The key motivation of this paper is to discern the policy of corporate dividends in different segmentation markets: developed, developing and emerging markets, especially in the Asian market, which currently does not have well-established financial literature. Owing to various industry trends, dividend policy can be somewhat different. According to Jabbouri (2016), the approach of dividends in the developing market is also quite different from those in established markets. Mollah (2015) concluded that emerging markets are somewhat distinct from developing markets in all ways, such as smaller business sizes, uncertain or unpredictable economies, and greater financial restrictions.

1. Literature review

1.1. Dividend behaviour

Dividend policy has received a great deal of interest from financial economists in terms of corporate finance literature. A number of theoretical and empirical studies have been carried out over previous years, leading to several findings where empirical evidence on dividend behaviour can unfortunately be seen to be very mixed. According to Miller and Modigliani (1961), the rationality of behaviour connoted the preference of investors for more wealth and indifference as to whether the increase in their wealth came in the form of cash dividends or an increase in market value or their cash holdings.

Pioneering research into dividend behaviour was conducted by Lintner (1956), who interviewed managers from 28 selected firms to analyse their perceptions of dividend policy. He mentioned that firms only increased their dividend payments with a steady increase in earnings. Lintner also outlined the firms' tendency to adjust the speed of dividends in order to minimise the discrepancy between the target and the actual payout ratio. He proposed a lagged partial adjustment model of dividend behaviour to view the current dividend as a function of the past dividend and current earnings. Several empirical studies have used the Lintner model to analyse corporate dividend behaviour in developed and developing capital markets. The Lintner model has two main parameters, namely speed of adjustment (SoA) and the target payout ratio (TPR). These findings provide evidence for a re-examination of the topic using the Lintner model.

1.2. Developed countries

A variety of studies from developed countries consistently used Lintner's model and found mixed findings recorded in different

studies at different time periods. Baker et al. (1985), Pruitt and Gitman (1991), Laffer (1996), Chemmanur et al. (2010), and Persson (2013) reported consistent results remarkably similar to those from the 1950s, which is when the behavioural model was developed by Lintner. In addition, Ariff and Johnson (1990) found that the speed of adjustment for Singaporean listed firms led to a much smaller estimated target dividend payout ratio. They concluded that the low estimated target dividend payout ratio in Singapore was due to the low dividend payout ratio in practice on the Singaporean equity market.

Lintner's partial adjustment model was used by Goergen et al. (2004) to approximate the implied target payout ratio and the rate of adjustment of dividends to the long-term target payout ratio and infer that UK and US firms only adjust their dividend strategy on a steady basis. Meanwhile, in the case of a sudden decrease in profitability, German firms are more likely to cut dividends when the event happens. Bremberger et al., (2013) extended Lintner's model by adopting dynamic panel data of 106 public traded European electric utilities in the period of 1986- 2011. They discovered that both dividend smoothing and target pay-out ratios are appropriate under the regulatory system. This suggests that electric utilities firms are subject to incentive regulation, making them responsive to earnings variability and aligned with efficiency-enhancing pressures.

1.3. Developing countries

In the last few years, in the scope of developing countries, Omar and Rizuan (2014) find that Lintner's model supports dividend behaviour in the context of Malaysian companies and reports that Malaysian firms are willing to change their dividend with a small speed of adjustment, which suggests smooth and persist-

ent dividend policy. Meanwhile, Adaoglu (2000) concluded that the dividend policy behaviour of firms operating in emerging markets was substantially different from that of firms operating in developed markets. Accordingly, that analysis focused on the emerging market of the Istanbul Stock Market (ISE) and investigated empirically whether ISE companies had adopted stable cash dividend policies in the regulatory context. The empirical results showed that ISE corporations followed unstable cash dividend policies. This was due to the firms' earnings which determined the amount of cash dividends for that particular year. Another example of such a study was that of Batool and Javid (2014), who used the stability model for 100 manufacturing firms listed on the Karachi Stock Exchange between 2003 and 2011. Their findings suggest that firms follow a smooth dividend policy but do not follow the long-term dividend payout model, and it was revealed that Pakistani companies reduce their dividend payments as economic conditions deteriorate.

1.4. Emerging countries

In emerging capital markets, the information content of dividends as suggested by Lintner (1956) has been discussed in a number of empirical studies, which have reported mixed results in these markets. According to Al-Ajmi and Hussain (2011) in Saudi Arabia, and Turen and Salman (2012) in Bahrain, data has been discovered which supports the Lintner model in describing the dividend behaviour in these emerging markets in some way compared to developed countries, which usually have higher adjustment factors, resulting in lower smoothing and less stable dividend policies. Conversely, Tran et al. (2014) in Vietnam and Bulla (2017) in Nairobi found inconsistent results whereby the adjustment factors were alternately lower and higher in

the target payout ratio and stable in dividend policies. However, Ayman et al. (2008) conducted a study using three different estimated partial adjustment models, namely those of Lintner (1956), Darling (1957) and Brittain (1966), in order to examine the intertemporal behaviour. They found that, for Jordanian firms, Lintner's model was the perfect match. Previous dividends and current earnings have the largest effect on DPS intertemporal behaviour, suggesting that Jordanian companies are following a strategy of persistent dividends. Jordanian companies pay fewer dividends than their counterparts in developed economies, despite the fact that dividends are stable.

2. Methodology

2.1. Research model

Lintner's model was adopted in an attempt to solve the problem. In a pioneering study of dividend policy behaviour, the Lintner model is a basic model that is mostly used in an empirical framework to define the dividend payment behaviour of firms. According to Lintner (1956), the partial adjustment model advocates that the current behaviour of cash dividend payments relies upon the past behaviour of cash dividends along with the current level of earnings. Lintner (1956) put forward the partial adjustment relationship to explain dividend decisions as follows:

$$D_{it}^* = r_i E_{it}$$

One of the first attempts to research the behaviour of corporate dividends was Lintner's model (1956). The model specifies that each of the firms has an unobserved target dividend level where D_{it}^* is the target level of dividends for any year t , r_i is the target payout ratio, and E_{it} is the firm's net earnings in year t .

$$D_t - D_{t-1} = \alpha + c (D_t^* - D_{t-1}) + \varepsilon_t$$

The α in the Lintner model is generally

positive and reflects the greater reluctance to reduce dividends than to raise them (Lintner, 1956). The annual adjustment process is represented by c , which reflects the speed of adjustment coefficient, D^* is the target dividend payment in period t , while D_t is the actual dividend payment in period t . Lintner (1956) also argues that for any given year, a firm will only partially adjust to the target dividend level. Thus the change in dividend payment from year $t-1$ to year t is given by:

$$D_t - D_{t-1} = \alpha + \beta_1 E_t + \beta_2 D_{t-1} + \varepsilon_t$$

The constant term α , is the reluctance on the part of management to curtail dividends and is expected to be positive. The coefficient c signifies the stability of dividends and measures the speed of adjustment toward the target payout ratio r_i in response to earnings changes. Thus, c reflects the dividend smoothing behaviour of firms to changes in the level of earnings. This indicates less dividend smoothing due to a higher value of c and vice versa.

$$D_t = \alpha + c r_{it} + (1-c) D_{t-1} + \varepsilon_t$$

The partial adjustment model can be consistently estimated by OLS, by adding a lagged dependent variable on the left-hand side of the equation with an error term making the estimation results inconsistent and biased. However, the Generalised Method of Moments (GMM) provides a more advanced method and more robust results in estimating the Lintner (1956) model. Empirical use of Lintner's model requires the study to modify and construct the following model:

$$DPS_{it} = \alpha_i + \beta_1 DPS_{it-1} + \beta_2 EPS_{it} + \varepsilon_{it}$$

The speed of adjustment (SoA) reflects the stability and smoothing of dividends. The factor of adjustment is between 0 and 1. A value over 0.50 indicates a high adjustment factor, which shows an unstable and low level of smoothing of dividend policy

(Al-Najjar and Kilincarslan, 2016), and vice versa. The value of speed of adjustment can be derived from $1-\beta_1$ (Al-Ajmi and Husain, 2011; Bremberger et al., 2016).

The target payout ratio (TPR) is used to identify the optimal long-run percentage of profit for distribution via dividends. This is also a guideline for managers to consider as they announce the payout (Persson, 2013). This ratio can be derived from the regression $(\beta_2 / 1-\beta_1)$ (Bremberger et al., 2016; Bulla, 2017).

2.2. Sample selection

The research sample was chosen for this study from among the top 100 listed firms, based on market capitalisation, in each country's stock exchange. Financial institutions and insufficient data were excluded from the sample to reduce survivorship prejudice. The sample selection criteria resulted in a panel dataset totalling (1) 50 for Singapore; (2) 67 for Malaysia; and (3) 71 for Saudi Arabia. These are non-financial companies that were listed on each country's stock exchange from 2007 to

2016. Table 1 displays the distribution of sampled companies across sectors in Singapore, Malaysia and Saudi Arabia.

To test Lintner's model in Singapore, Malaysia and Saudi Arabia by creating large-scale panel data covering a relatively long time period, this study uses unbalanced panel data due to missing observations because of newly listed and delisted firms, and considers it to be a more robust model than simplistic cross-section or timeframe data (Hadi et al., 2018). In order to provide a long-run adjustment process toward optimal dividend policy, this study expands the empirical research on the dynamic panel model and the nature of the adjustment process. Regression analysis was carried out, in particular using the Generalised Method of Moments (GMM) by Arellano and Bond (1991), which can effectively estimate the dynamic panel model and can be used in corporate finance data to resolve issues of endogeneity along with robust standard error standard methods (Altyar, Habeeb, & Sedeeq, 2020; Shafai, Nassir, Kamarudin, Rahim, & Ahmad, 2019).

Table 1. Distribution of the sample

Singapore		Malaysia		Saudi Arabia	
Criterion	Number of firms	Criterion	Number of firms	Criterion	Number of firms
Sample of firms listed on the STI	100	Sample of firms listed on the Bursa	100	Sample of firms listed on the Tawadul	100
(-) Financial firms	34	(-) Financial firms	19	(-) Financial firms	27
(-) Missing data	16	(-) Missing data	14	(-) Missing data	2
Total number of companies in the sample: 50		Total number of companies in the sample: 67		Total number of companies in the sample: 71	

Notes: STI (Singapore Stock Exchange), Bursa (Bursa Malaysia) and Tawadul (Saudi Stock Exchange).

Source: Own elaboration.

3. Results and Discussion

The reason for introducing the Lintner model in the analysis is to test whether firms in Singapore, Malaysia and Saudi Arabia practised smoothing in their dividends, and to see how well the model demonstrates whether the sampled firms

in the three countries have a stable dividend policy. The result of Lintner's partial adjustment model to is estimate the speed of adjustment (SoA) and target payout ratio (TPR). The speed of adjustment factors indicate how quickly a company adjusts its

dividends towards the target payout ratio. The speed of adjustment factor should be between 0 and 1. Meanwhile, the target payout ratio is a factor that shows how companies set their long-term target payout ratios and how they are progressing toward the target.

Higher speed of adjustment induces less smoothing, and thus a less stable dividend policy. These estimates are obtained from the regression coefficients of the basic Lintner model. The smoothing has benefited from a strong relationship between the existing dividends and the previously paid dividends. The results present the parameter estimates obtained for the dividend behaviour model. The lagged dividend in the Lintner model indicates management's desire for a stable dividend policy.

In Singapore, the speed of adjustment ($1-\beta_1$) ranges from 63.85% (*one-step*) to 66.84% (*two-step*). Applying the two-step System GMM estimator as the most suitable estimator to compute the speed of adjustment factors, 66.84% of Singaporean firms smoothen their dividends and maintain stable dividend policies. The results are similar to previous studies by Ayman et al. (2008), Andres et al. (2009), Persson (2013), Sibanda (2014) and Bahng and Lee (2011) on other developed countries. Meanwhile, the target payout ratio ($\beta_2 / 1-\beta_1$) ranges between 15.36% (*one-step*) and 15.46% (*two-step*). Hence, the dividend decisions of the firms from the Singaporean sample are not dependent on the long-term target payout ratios. According to Kamat (2009), firms with higher adjusting factors and low payout ratios change their dividend distributions on a regular basis depending on adjustments in earnings. A low target payout ratio shows that firms have more financing constraints (Fazzari et al., 1987). Singaporean firms might have more financing constraints due to short-term debt financing. Dividend smoothing

is also of a lower order. The results for the target payout ratio for this study are broadly similar to Ariff and Johnson's findings (1990). This, therefore, suggests that Singaporean firms do not set a binding long-run target payout ratio, a result inconsistent with Lintner's prediction.

Malaysia's estimated speed of adjustment factor is 59.3% (*one-step*) compared with 57.55% (*two-step*). This suggests that Malaysian firms remained consistent in dividend policy by smoothing shocks throughout the study period. The target payout ratio varies between 68.67% (*two-step*) and 69.7% (*one-step*), indicating the swiftness of the movements of Malaysian firms to the target payout ratio and adherence to a long-run target payout ratio. It also indicates that Malaysian firms pay more than 60% of their earnings on average as dividends to shareholders. The results for Malaysia as a developing country are consistent with previous studies (Ameer, 2008; Ahmed and Javid, 2009; Batool and Javid, 2014; Omar and Rizuan, 2014). Therefore, the results suggest that Malaysia has followed a smooth and persistent dividend policy.

The speeds of adjustment for Saudi Arabian firms are 25.95% (*one-step*) and 31.94% (*two-step*), indicating a smoother and more stable dividend payment at a lower speed of adjustment. Measuring the target payout ratio is another useful statistic. The target payout ratio varies from 44.05% (*one-step*) to 49.31% (*two-step*). Saudi Arabian firms pay their dividends based on a long-term target payout ratio. Table 2 demonstrates the explanatory power of the Lintner model in examining dividend behaviour in Saudi Arabia. For instance, the Lintner model estimates the speed of adjustment at approximately 30% while the target payout ratio is 50%. The results for Saudi Arabian listed firms are very similar to the results obtained by

Lintner (1956). Previous studies on emerging countries also show results consistent with those of Saudi Arabia (Bulla, 2017; Athari et al., 2016; Tran et al., 2014; Jeong, 2013; Turen and Salman, 2012; Al-Ajmi and Hussain, 2011). The Arellano-Bond test of autocorrelation shows no second-order

serial correlation. It is thus concluded that the instruments for this test are correctly specified and that there is no second-order AR(2) correlation in the error terms (Thareeq and Handoyo, 2020) in all of the three models representing Singapore, Malaysia and Saudi Arabia.

Table 2. Application of the Lintner Model using the GMM System

Variable	Singapore		Malaysia		Saudi Arabia	
	GMM System		GMM System		GMM System	
	One-Step	Two-Step	One-Step	Two-Step	One-Step	Two-Step
<i>DPS_(t-1)</i>	0.361*** [0.057]	0.335*** [0.0158]	0.407*** [0.068]	0.424*** [0.028]	0.741*** [0.062]	0.681*** [0.088]
<i>EPS</i>	0.098*** [0.009]	0.103*** [0.003]	0.413*** [0.044]	0.395*** [0.033]	0.114*** [0.018]	0.158*** [0.056]
<i>Speed of Adjustment</i>	0.6385	0.6684	0.593	0.5755	0.2595	0.3194
<i>Target payout ratio</i>	0.1536	0.1546	0.697	0.6867	0.4405	0.4931
<i>AR(1)</i>		0.338		0.110		0.002
<i>AR(2)</i>		0.056		0.573		0.338
<i>Sargan test</i>	0.974	0.363	0.116	0.286	0.469	0.125

Notes:

- (1) The explanatory variables in the model are: earnings per share (EPS) and lagged dividend per share (DPS(t-1))
- (2) The values in [] represent the standard error
- (3) The dependent variable and all explanatory variables are in ratios and log values.
- (4) ***, ** and * denotes significance at the 1%, 5% and 10% levels respectively. Standard errors are reported in parentheses.

Source: Own elaboration.

The dividend policy behaviour of firms differs significantly among the three countries investigated. Table 3 shows varying speeds of adjustment and target payout ratios for the three different markets: developed, developing, and emerging. A low adjustment speed towards the target payout signifies the presence of smoothing while a high speed of adjustment suggests the absence of a low level of smoothing and the instability of the dividend policy. The countries being compared were chosen based on previous studies that have conducted tests on the speed of adjustment and target payout ratio using the Lintner model. Samples of the three countries are compared based on their market segmentation: (1) Singapore is compared with other countries in developed markets; (2) Ma-

laysia is compared with other countries in developing markets; and (3) Saudi Arabia is compared with other countries in emerging markets. Such comparisons must be done carefully on the basis of variations in the tax structure, methodology, time and allocation of share ownership, all of which have an effect on dividend decisions.

The speed of adjustment for Singapore has drastically increased from 40% to 66%. This implies that Singapore has changed dramatically in terms of smoothing compared to 29 years ago. Al-Malkawi et al. (2014) indicate that dividend smoothing is "universal". These results further show a better speed of adjustment especially when compared to that for the United States of America (25%), Portugal (37%), Germany (25%) and Korea (68%). In terms

of target payout ratio, Singapore is among the countries paying less than 20% of its earnings as dividends, with the lowest target payout ratio compared to other countries in the developed market. Furthermore, payments on earnings only improved by 3% for almost 30 years since the research carried out by Ariff and Johnson (1990). The high speed of adjustment and a low target payout ratio indicate instability and low smoothing in dividends.

Meanwhile, the speed of adjustment for Malaysian listed firms is 57%, which is higher than previous studies by Omar and Rizuan (2014) and Pandey (2003), with 45% and 22% adjustment rates respectively. This suggests that the Malaysian listed firms in this sample adjusted their dividends faster compared to past studies. However, Malaysian firms adjust at a relatively slower pace compared to most countries in developing markets such as Pakistan (77%) and Turkey (100%). The result indicates that Malaysian listed firms emphasise stable dividend pay-outs to signal their future profitability and simultaneously minimise the agency cost. The target payout ratio of 68% for Malaysia is 4% higher

than that of a previous study by Omar and Rizuan (2014), and is among the highest compared to other developing countries.

The estimated speed of adjustment for Saudi Arabia is 32%, which is much lower than that of a previous study by Al-Ajmi and Hussain (2011) with a 71% speed of adjustment. Saudi Arabian firms are shown to practise smoothing and have stable dividends. A similar speed of 30% percent was obtained by Lintner (1956) for listed firms in the United States. However, the speed of adjustment for Saudi Arabia is much lower compared to previous studies on other countries such as India (71%), Bahrain (63%) and Jordan (61%). Another variable of interest is the target payout ratio – in the Saudi Arabian firms it is 49%, which is higher than that of a study by Al-Ajmi and Hussain (2011) which resulted in a figure of 43%. These findings are almost similar to Lintner's results for the US firms with a 50% target payout. The present results thus suggest that firms in Saudi Arabia react quicker to positive changes in economic conditions, as the speed of adjustment is higher than that of a previous study.

Table 3. List of empirical studies on speed of adjustment and target payout ratio by countries

Author(s)	Year	Market	SoA	TPR
Developed markets				
Lintner	1956	United States of America (USA)	0.25	0.60
Fama and Babiak	1968	United States of America (USA)	0.37	0.46
Shevlin	1982	Australia	0.51	0.43
Ariff	1990	Singapore	0.40	0.12
Georgen, Renneboog and Da Silva	2004	Germany	0.25	0.21
Benzinho	2004	Portugal - Euronext Lisbon Database	0.35	0.22
Aivazian	2006	United State of America - Compustat Database	0.24	0.50
Bremberger, Cambini, Gugler and Rondi	2013	European	0.62	0.37
Persson	2013	Stockholm - All industries	0.75	0.06
Jeong	2013	Korea	0.68	0.13
<i>Present study</i>	2016	<i>Singapore</i>	0.66	0.15

Developing Market				
Adaoglu	2000	Turkey	1.00	0.52
Pandey	2003	Malaysia	0.22	0.26
Ahmed and Javid	2009	Pakistan	0.77	0.32
Omar and Rizuan	2014	Malaysia	0.45	0.64
Batool and Javid	2014	Pakistan	0.68	0.14
<i>Present study</i>	2016	<i>Malaysia</i>	0.57	0.68
Emerging Market				
Al-Malkawi	2005	Jordan	0.47	0.21
Pandey and Bhat	2007	India	0.71	0.25
Ayman, Wasim, and Radhi	2008	Jordan	0.61	0.55
Al-Yahyaee, Pham and Terry	2010	Oman	0.25	0.70
Al-Ajmi and Abo Hussain	2011	Saudi Arabia	0.71	0.43
Turen and Salman	2012	Bahrain	0.63	0.56
Tran, Thu and Nguyen	2015	Vietnam	0.12	0.88
Bulla	2017	Kenya	0.18	0.36
<i>Present study</i>	2016	<i>Saudi Arabia</i>	0.32	0.49

Source: Own elaboration.

Conclusions

Based on the results attained from the Lintner model, research on the three sampled countries can lead to the conclusion that Saudi Arabian firms are found to have the smoothest and most stable dividend pay-outs, suggesting that the firms pay their dividends smoothly, possibly due to them having less agency-principal conflict. The stability of dividends is pursued so as not to cause unnecessary price volatility due to uncertainty. In comparison, Singapore has a significantly high speed of adjustment, indicating no such smoothing. This suggests that Singaporean listed firms experienced wide swings in dividend payments and higher earnings shock where more surplus funds are retained. Malaysia, meanwhile, has a moderate speed of adjustment, suggesting fairly stabilise dividends arising from positive changes in earnings. In conclusion, compared to Singapore and Malaysia, Saudi Arabia is the smoothest and most stable in paying out dividends, which is consistent with Lintner's prediction. Although a great deal of research has been done using the partial adjustment model, no evidence

has been provided on the three different markets. According to Lehmann and Mody (2004), most of the research focused on developed countries rather than emerging markets, and may contribute to the different regulatory and legislative frameworks of these countries. The disparity hinders the aggregate view of the findings gathered from the three markets.

In addition to knowledge in the field of dividend behaviour, especially in different market segmentations, this gives rise to the fact that shareholders basically favour a company with a safe, consistent and reliable dividend policy. This model will also be used by investors and analysts to estimate the company's dividend payments. In addition, corporate managers are often motivated by stability and smooth dividend payments. Managers will then use this information to meet the acquisition and funding needs of companies and at the same time reduce the agency cost.

However, there are certain limits to the empirical study. To begin with, the most significant limitations to be discussed here are the number of firms, since this report

only covers the top 100 public companies in each country and excludes the financial sector. Furthermore, the firms in the research sample have the largest market capitalisation and are of the greatest interest to investors. As such, the presented results may only be applicable to larger firms and may not be extrapolated to other smaller firms. Finally, this study only used the partial adjustment model by Lintner to identify the speed of adjustment (SoA) and target payout ratio (TPR). Nevertheless, other models such as those of Darling (1957) and Brittain (1966) may improve the predictive power of dividend behaviour.

In future research, there are several possible fields that should be explored. Firstly, it is recommended that future research include listed firms from other major countries and from different market segmentations for the purposes of better generalisation. In addition, it would be interesting to increase the sample size, as this would permit researchers to see the range of speed of adjustment (SoA) and target payout ratio (TPR) and perhaps provide better and more varied findings. Furthermore, it is recommended that non-listed firms be included to identify the behaviour pertaining to their dividend decisions as an extension of this study. Even though a comparison between dissimilar types of financing behaviour of two firms could not be made objectively, similar behaviour among listed firms could be taken into consideration.

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