Dividend policy behavior: An analysis of firms listed at Stockholm Stock Exchange

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Bachelor Thesis

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Abstract: The aim of this study is to examine the dividend policy behavior of firms listed at Stockholm Stock Exchange from 2005-2011. We examine the behavior from a Market Cap (firm size) and industry classification (group characteristics) perspective due to the structure of Stockholm Stock Exchange, by using non-parametric methods and Linnter’s model. The conclusions are as follows: (i) Market Cap listing and industry classification matters for the propensity to pay dividends and we observe that firms in Mid Cap and Small Cap were more likely to pay dividends in 2011 than in 2005. (ii) Neither Market Cap listing nor industry classification affects the firms’ payout ratio. (iii) Market Cap listing affects the firms’ level of paid DPS (dividend per share) but not significantly when we compared firms in Large Cap to firms in Mid Cap. Industry classification affects the firms’ level of paid DPS. (iv) Current EPS (earnings per share) and past DPS are important factors for deciding current DPS when firms were classified into Market Caps, but not for all firms when they were classified into industries. (v) Firms follow regular but unstable dividend policies despite Market Cap listing. Firms in the Health Care industry follow irregular and unstable dividend policies while the firms in the other industries follow regular but unstable dividend policies.

Keywords: Linnter’s Model, Dividend policy, Life-Cycle Theory, Payout Ratio, Stockholm Stock Exchange

1. Introduction

Dividend policy1 is one area in finance that baffles researchers (Kinkki 1997 p.58). Black (1976) states: “The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just do not fit together” (Black 1976 p. 5).

Dividends have been a subject for an extensive research: Milner & Modigliani (1961) stated that the dividend policy is irrelevant under the assumption of perfect capital markets because it does not affect the value of the firm. However, other researchers argue that dividends do matter because perfect capital markets do not exist and they have contributed with theories and models on how dividends affect the value of the firm and how managers should decide on their policies. Despite all research, there is no generally accepted model describing the dividend policy behavior. Additionally, empirical findings are often hard to interpret or inconsistent with the theories and that is why it can be referred to as a “puzzle” (Bhayani 2011 p.103, Pandey 2003 p.17, Barker 2001 pp 18-20).

Numerous researchers have examined the dividend policy behavior of firms, for example Mookerjee (1992) in India, Pandey (2003) in Maylayasia and Hayunga & Stephens (2009) in the U.S.A It is well known that the dividend policies between countries are different (La Porta et al. 2000 p.2) and, to our knowledge, there is a lack of comprehensive studies that examine the dividend policy behavior of firms in Sweden. This research gap needs to be closed and therefore our aim is to examine the dividend policy behavior of firms listed at Stockholm Stock Exchange from 2005-2011. We specify the aim by stating three research questions.

i. What is the propensity to pay dividends2 and have there been any changes in the propensity over the period of time?

ii. Can we observe a difference between the firms in the payout ratio and the dividends paid?

iii. To what extent do firms rely on current earnings and past dividends when they decide their current dividend payments and do they follow stable dividend policies?

We examine the research questions from a Market Cap (firm size) and industry classification (group characteristics) perspective that is if there is a difference in the behavior between the three Market Caps or between the industries. The motivation for this approach is due to the organization of the Stockholm Stock Exchange.

This thesis adds to the existing literature by examining the dividend policy behavior of firms listed at Stockholm Stock Exchange. From an academic perspective the thesis will examine if the dividend policy behavior is consistent with theories and empirical findings. From a practitioners point of view this thesis contributes to better knowledge about the patterns and levels of the dividend payments from a Market Cap and industry classification perspective.

The thesis is organized as follows: Section 2 will give a review over the structure of Stockholm Stock Exchange. Section 3 will develop hypothesis for

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1 Dividend policy is defined as the payout policy that managers follow, when they decide the size and the patterns of the dividends paid to the shareholders (Baker et al. 2001 p.19). Stock repurchases is not included in the definition “dividend behavior”. If stock repurchases is included, the definition is total payout policy (Renneboog & Trojanowski 2011 p.1484).

2 The propensity to pay dividends is measured by the proportion of dividend payers (Fatemi & Bidik 2012 p.664).
research questions. Section 4 will give a description of the data and the sample selection. Section 5 will describe the method. Section 6 will give the results and discussions and Section 7 presents the conclusions.

2. Stockholm Stock Exchange

In this section we give a short review of the structure of Stockholm Stock exchange.

2.1 Sector Classification

The Stockholm Stock Exchange market follows the Industry Classification Benchmark (ICB) rules. ICB provides a comprehensive structure for sector analysis. It classifies firms into ten industries. The ten industries are Oil & Gas, Basic Materials, Industrial, Consumer Goods, Health Care, Consumer Services, Telecommunications, Utilities, Financials and Technology (Nasdaq 2012 p.6).

2.2 List Segment Indexes

All firms listed at NASDAQ are divided into three segments, which are called Large Cap, Mid Cap and Small Cap. Firms with a market value >1 billion Euro are found in Large Cap. Firms with a market value <1 billion Euro but >150 million Euros are found in Mid Cap. Firms with a market value <150 million Euros are found in Small Cap (Nasdaq 2012 p.7)

3. Development of Hypotheses

In this section we will develop hypotheses for the three research questions based on existing theories and empirical findings.

3.1 Research Question I and II: Hypotheses

The life-cycle theory suggests that there is a tradeoff between the advantages and the disadvantages over the retention of earnings during the lifetime of a firm. The advantages could be flotation cost savings and the disadvantages could be agency cost (Coulton & French (2001), DeAngelo et al. (2006) and Viera (2007) we believe that the proportion of dividend payers has decreased over the examined period of time. We also argue, based on the life-cycle theory, that firms listed at Large Cap have larger payout ratios and pay more dividends because they have more cash to distribute as dividends. Therefore we state the following hypotheses:

$H_1=$The proportion of dividend payers is larger at Large Cap than at Mid Cap and Small Cap.

$H_2=$The proportion of dividend payers has decreased over the examined period of time in all three Caps.

$H_3=$Firms in Large Cap have larger payout ratios than firms in Mid Cap and Small Cap.

$H_4=$Firms in Large Cap pay more dividends (per share) than firms in Mid Cap and Small Cap

Lintner (1956) stated that dividend policies of firms in the same industry might be positively correlated. The Conference Board (1971) also finds a relationship between dividends and industry, due to same investment opportunities (Michel & Shaked 1986 pp.365-366). Dhanani (2005) states: "firms may tailor their dividend policies to suit the particular circumstances facing the industry in which they operate. Firms in high growth industries, for example, may curb their dividend based strategies in an attempt to retain funds for further investment, in comparison to those in mature, saturated industries" (Dhanani 2005 p.1635). Based on the influence of industry and the empirical findings about the decreasing propensity to pay dividends we state the following hypotheses:

$H_5=$The proportion of dividend payers differs across the industries.

$H_6=$The proportion of dividend payers has decreased over the examined period of time in all industries.

$H_7=$The dividend payout ratio differs across the industries.

$H_8=$The dividend paid (per share) differs across the industries.

3.2 Research Question III: Hypotheses

Lintner’s study from 1956 suggests that firms decide a target payout ratio based on long-term sustainable investment and growth objective. When the target payout ratio is determined the firm adjusts the policy to the target. This implies that the firm gradually increases dividends given the target payout ratio, which is called “speed of adjustment”(S0A). This means that dividends will only change when managers believe that earnings have permanently increased, that is firms do not immediately change their dividend by changes in earnings. These findings suggest that firms decide on their policy based on current earnings and dividends of the previous year. In sum, dividend stability implies regularity in the payments and a gradual adjustment to
the target payout ratio. (Pandey 2003 p. 18, 21, Benartzi et al. 1997 pp. 1007-1009). Based on Lintner’s study we believe that firms rely on their past and current earnings and regularity in their dividend policies. However, due to the life-cycle theory we argue that firms listed in Large Cap have a higher SoA factor than firms listed in Mid Cap and Small Cap because they want to distribute excess earnings faster in order to reduce the agency cost. We could argue that some industries, for example, have higher SoA factor than other industries but then we would have problems deciding which industry is mature etcetera. As a result we will only make a general hypothesis about the industries. We state the following hypotheses for research question iii:

\[ H_0 = \text{Current earnings and past dividends are important factors and positively related to current dividends in all Market Caps and industries.} \]

\[ H_G = \text{Firms in all Market Caps are regular in their payments but firms in Large Cap have a higher adjustment factor and therefore follow less stable dividend policies than firms in Mid Cap and Small Cap.} \]

\[ H_1 = \text{Regardless of industry classification firms’ follow, on average, stable dividend policies.} \]

3.3 Resume: Background of the Hypothesis

We will now summarize the background of the hypotheses in a model. The model (figure 1) will also represent the theoretical framework of this thesis. The framework provides insight in the factors that characterize the dividend policy of the firm. We argue that life-cycle theory and the influence of industry affects dividend policy in four ways in this thesis.

It affects size of the dividends paid, the payout ratio, the propensity to pay dividends, the regularity and the stability. Firm size and industry classification will influence the firms’ current EPS and past DPS and thereby affect the firms’ regularity and stability. The propensity to pay dividends will be affected by the firm size and the influence of industry.

3.4 Motivations and Critique for Chosen Models in the Theoretical Framework

We have disregarded some well-recognized and accepted theories in the theoretical framework. One of them is the signaling theory. If the signaling theory had been included, it would have affected the development of our hypotheses. The choice to omit the signaling theory is based on Grullon et al. (2005) that concluded that dividend changes are uncorrelated with future earnings (Grullon et al. 2005 p.1681). We agree with Ben-David (2010), who mentions that dividend payments indicate firm maturity rather than future profitability (Ben-David 2010 p.339). The life-cycle theory is also supported by Jensen & Meckling (1976), Lloyd et al. (1985), and Jensen et al. (1992), who all came to the conclusion that large firms increased their dividend payouts in order to reduce the agency costs (Al-Kuwari 2010 pp.22). For this reason we chose the life-cycle theory together with Linter's model. Lintner’s model has been used successfully by other researchers to explain dividend policies (Sudhahar & Saroja 2010 p.64, Leary & Michaely 2011 p.3200). The impact of the influence of industry is also well established.

4. Data and Sample Selection

This section describes the data we use to address the research questions and the hypothesis. The sample selection procedure will also be described.

4.1 Data Sources and Variable Description

Annual data of two variables during the period 2005-2011 has been collected from the databases Thomson Reuters Datastream and Börsdata. Most of the data was collected from Thomson Reuters Datastream, but in a few cases some observations were collected from Börsdata. We motivate the selection of investigated years by the introduction of IFRS in 2005. The reason for not including 2012 was that some annual reports were not available when the data was collected.

Thomson Reuters Datastream description of the first variable is: Dividend per share (DPS)-fiscal “represents the total dividends per share declared during a company’s fiscal year. It includes extra dividends declared during the fiscal year but excludes special dividends” (Thomson Reuters Datastream).

Thomson Reuters Datastream description of the second variable: Earnings per share (EPS), based on average shares outstanding, “represents the earnings for the twelve months ended the fiscal year for non-U.S. corporations. It is as reported by the company except for Sweden where the Standard Tax Method has been used where not reported by the company. Where earnings per share are reported for Swedish companies it may be after standard or actual tax. If earnings per share are not reported by the company, an estimate based on the respective country’s generic definition has been computed” (Thomson Reuters Datastream).

4.2 Sample Criteria and Selection Procedure

The criteria by which the firms are included in the sample are: (i) The firm must have available data for all years, that is 2005-2011. (ii) The firm must have been listed at Stockholm Stock Exchange during the aforementioned period of time. If the firm has been listed during the course of 2012 or 2013 then it cannot be included in the sample. (iii) Financial and Investment firms cannot be included in the sample for the Market Caps and the Industries due to their unique structure in the balance sheet and accounting practice (Aldamen et al. 2012 p.979). The method of excluding

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1. Extra or special dividends are often announced after an exceptionally strong earnings report. Extra dividends are an indication that the extra amount may not be repeated in the future but Special dividends will definitely not be repeated in the future (Ross et al. 2007 ch.18).
financial firms from the sample is common and consistent with other studies in this field of research (Charitou et al. 2011 p.357). (iv) Firms with extreme value will be excluded.

Table 1 describes the sample selection procedure for the Market Caps.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Sample Selection Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms listed at Large Cap</td>
<td>62</td>
</tr>
<tr>
<td>Less: Financial and Investment firms</td>
<td>12</td>
</tr>
<tr>
<td>Less: Missing data</td>
<td>1</td>
</tr>
<tr>
<td>Remaining Firms Large Cap</td>
<td>49</td>
</tr>
<tr>
<td>Firms listed at Mid Cap</td>
<td>66</td>
</tr>
<tr>
<td>Less: Financial and Investment firms</td>
<td>7</td>
</tr>
<tr>
<td>Less: Missing data</td>
<td>6</td>
</tr>
<tr>
<td>Less: Firms with extreme values</td>
<td>1</td>
</tr>
<tr>
<td>Remaining Firms Mid Cap</td>
<td>52</td>
</tr>
<tr>
<td>Firms listed at Small Cap</td>
<td>121</td>
</tr>
<tr>
<td>Less: Financial and Investment firms</td>
<td>5</td>
</tr>
<tr>
<td>Less: Missing data</td>
<td>13</td>
</tr>
<tr>
<td>Less: Firms registered 2012-2013</td>
<td>4</td>
</tr>
<tr>
<td>Remaining Firms Small Cap</td>
<td>99</td>
</tr>
<tr>
<td>Total firms included: Market Cap sample</td>
<td>200</td>
</tr>
</tbody>
</table>

The firms will now be distributed into industries. We exclude industries with <10 firms. Table 2 describes the distribution.

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Distribution into Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Materials</td>
<td>13</td>
</tr>
<tr>
<td>Industrial</td>
<td>59</td>
</tr>
<tr>
<td>Health Care</td>
<td>25</td>
</tr>
<tr>
<td>Consumer Services</td>
<td>27</td>
</tr>
<tr>
<td>Technology</td>
<td>44</td>
</tr>
<tr>
<td>Total firms included: Industry Classification sample</td>
<td>168</td>
</tr>
</tbody>
</table>

The numbers of firms can differ from reality due to changes and updates in Thomson Reuters Datastream.

5. Method

This section will describe the methods used to answer the questions and the hypotheses.

5.1 Research Question I and II: Methods

The first research and second research question has eight hypotheses. To address these hypotheses in a correct way we will use non-parametric methods, because the null-hypothesis of the Sharpio-Wilk test was rejected. The non-parametric approach is consistent with other studies like Michel & Shaked (1986) and Pandey (2003). For hypothesis 1 and 5 we use the two-sample proportion test and the multiple proportion test with the non-parametric solution that is the Chi-square statistic. The null-hypothesis of the proportion test is: there is no difference in the proportion of dividend payers between the groups (Pallant 2010 p.217). We will test Large Cap to Mid Cap and Large Cap to Small Cap year by year. If the tests are significant we do not reject hypothesis 1. For hypothesis 5 we test all the industries year by year and if the tests are significant, we do not reject the hypothesis.

To approach hypothesis 2 and 6 we will look at the trend and use the McNemar’s test to see if there is a change in the proportions of dividends payers in 2011 compared to 2005. The null-hypothesis of the McNemar’s test is: there is no difference between the proportion of payers in 2011 compared to 2005 (Pallant 2010 p.223). If the McNemar’s test is significant and if the proportion of payers is smaller in 2011 than 2005 we do not reject the hypothesis.

Hypothesis 3 and 7 addresses the payout ratio. In this paper we calculate the payout ratio as follows:

\[ \text{Payout ratio}_{i,t} = \frac{\Delta \text{Div}_{i,t}}{\Delta \text{EPS}_{i,t}} \]

Where \( t = \text{time period} \) and \( i = \text{firm} \). In this paper we have set the payout ratio to 1 if (i) dividends are paid despite negative earnings or (ii) dividends are exceeding earnings (Pandey 2003). To address these hypotheses we will only include firms that have paid dividends, otherwise the results will be self-explanatory. For example, assume the proportion of dividend payers is larger at Large Cap, then the payout ratios could be higher only due to the fact that there are more payers and we can not actually measure if it is due to the Market Cap listing.

For hypothesis 3 we use the Mann-Whitney U test (M-W U test). The null-hypothesis of the M-W U test is: there is no difference in the payout ratios between the groups. If the M-W U test is significant when we test Large Cap to Mid Cap and Large Cap to Small Cap year by year we do not reject the hypothesis.

For hypothesis 7 we use the Kruskal-Wallis (K-W) test. The null-hypothesis of The K-W test is: there is no difference in the payout ratios between the 5 industries. We test the industries year by year and if the test is significant we do not reject the hypothesis.

For hypothesis 4 we use the same method as for hypothesis 3 and for hypothesis 8 we use the same method as for hypothesis 7.

5.2 Research Question III: Methods

The third research question has three hypotheses. We will address these hypothesis by Lintner’s model. According to Lintner, dividends have this functional form:

\[ \text{Div}_{i,t} = f(E_{i,t}, \text{Div}_{i,t-1}) \]

Where \( \text{Div}_{i,t} \) = current dividends for firm \( i \) in time period \( t \), \( E_{i,t} \) = current earnings for firm \( i \) in time period \( t \) and \( \text{Div}_{i,t-1} \) = last years dividends for firm \( i \) in time period \( t-1 \) (Bodla et al. 2007 p.44). Lintner suggested that the firm had a target payout ratio \( (p_t) \) and then adjusted the dividends gradually that is speed of adjustment \( (S_t)(0.4) \). In this study we use dividends per share \( (\text{DPS}) \) and earnings per share \( (\text{EPS}) \) as suggested by Andres et al. (2009), Bhayani (2011) and Pandey (2003), that gives us the following model:

\[ \text{DPS}_{i,t} = s_i p_i \text{EPS}_{i,t} + (1 - s_i)\text{DPS}_{i,t-1} \]
But to use Lintner’s model empirically we need to construct the following model:

\[ D_{PS_{i,t}} = a_t + \beta_1 E_{PS_{i,t-1}} + \beta_2 D_{PS_{i,t-1}} + \epsilon_{i,t} \]

In this paper we will not use a pooled regression or a multiple cross section analysis because it does not account for individual firm specific effects and it could introduce bias in our analysis (Bhayani 2011 p.130, Gurjarati & Porter 2009 pp.593-594).

The firms are divided into Market Caps and Industries, but they are still different due to ownership and subsectors etcetera (ICB). That is why we use the fixed effects model. The fixed effect model can capture all the behavioral differences between the firms by the individual intercept (Hill et al. 2012 p.544) and our empirical model becomes:

\[ D_{PS_{i,t}} = a_i + \beta_1 E_{PS_{i,t-1}} + \beta_2 D_{PS_{i,t-1}} + \epsilon_{i,t} \]

We have embedded SoA \((s_i)\) term and the target payout ratio \((p_j)\) in the regression coefficients.

The descriptions of the variables are as follows:

**Target payout ratio \((p_j)\):** A guideline for managers to follow when they declare their payouts. This ratio can be derived from the regression by: \((p_j) = \beta_1 + 1 - \beta_2\) (Bodla et al. 2007 p.45)

**Speed of adjustment (SoA) \((s_i)\):** Reflects the dividends smoothing. A value over 0.50 indicates a high adjustment factor, which implies an unstable dividend policy (Al-Najjar & Belghitar 2012 p.63). The value can be derived from \((s_i)\): \(=1 - \beta_2\) Bodla et al. 2007 p.45

\[ D_{PS_{i,t}}= \text{Current dividends per share for firm } i \text{ in time period } t. \]

\[ a_i= \text{The fixed effect term for firm } i. \text{ The term should be interpreted as the regularity of the dividend payments.} \]

\[ E_{PS_{i,t}}= \text{Earnings per share for firm } i \text{ in time period } t. \]

\[ D_{PS_{i,t-1}}= \text{Last years dividends per share for firm } i \text{ in time period } t-1. \]

\[ \beta_1, \beta_2= \text{Regression coefficients} \]

\[ \epsilon_{i,t}= \text{Error term for firm } i \text{ in the period } t. \]

To address these hypotheses we will only include firms that have paid dividends any year across the period 2005-2011. This method is consistent with Kaur Bava & Kaur (2012), who just included dividend paying firms when testing Linter’s model (Kaur Bava & Kaur 2012 p.22).

For hypothesis 9 we look at the significance level of the coefficients, if all regression coefficients are significant and all coefficients have a positive sign we do not reject the hypothesis.

For hypothesis 10 we examine the average \(a_i\) and the SoA factor. If the average \(a_i\) is significant and the SoA factor is higher for firms in Large Cap compared to firms in Mid Cap and Small Cap, we do not reject the hypothesis.

To address hypothesis 11 we will look at the regularity and stability that is, if the SoA factor is low and the average \(a_i\) is significant across all industries then we do not reject the hypothesis.

5.3 Reliability, Validity and Critique

From our point of view the reliability is high because the data can be recollected and the results can be reproduced. However, there are some concerns about the use of two databases, but when we compared the data obtained from Thomson Reuters Datastream to Bördata we noticed that the difference is minimal. There might be some measurement errors were Thomson Reuters Datastream has provided inaccurate DPS or EPS for some firms but we believe that the impact on the results is minimal, because the database is considered as a reliable source. We are confident that the measurement, Lintner’s model etcetera, evaluates the dividend policy in a correct way and therefore we argue that the validity is high.

One fundamental assumption is that the firms have not changed their Market Cap listing during the period 2005-2011 but there are over 50 listed changes during the aforementioned period of time (NasDaq Omx). Most of the changes occurred in Small Cap when firms moved to Small Cap from First North or other lists, which implies that our estimates for Small Cap could be biased.

The non-parametric approach is used in this paper and there are some assumptions behind the M-W U and K-W test. (i) The tests assume that the observations in each group come from the same shape distribution. The test might provide inaccurate result if one group is negatively skewed and another is positively skewed. (ii) The sample size cannot be too small, <5 observations are considered as too small sample size for one group (McDonald 2009 pp. 165-172). Fagerland & Sandvik (2009). There might be problems with different shape distributions and our result in table 4 and 5 might be inaccurate, but researchers like Pandey (2003) and Michel & Shaked (1986) have used the same approach. Table 4 and 5 reveals that we do not have problems with too small sample sizes.

6. Results and Discussions

In this section we present the results and discussions for the research questions.

6.1 Research Question 1: Results

Research question 1 has four hypotheses. Table 3 shows the results for the proportion of dividend payers.

\[ H_1= \text{The proportion of dividend payers is larger in Large Cap than in Mid Cap and Small Cap.} \]

The proportion of dividend payers is 0.19-0.28 larger in Large Cap compared to Mid Cap across the period 2005-2011. All the year-by-year proportion \(\chi^2\) statistics are significant at 1 % level for the years 2005, 2009-2011 and at 5 % level for the years 2007-2008 when we compare Large Cap to Mid Cap. The proportion of dividend payers is about 0.4 larger in Large Cap compared to Small Cap across the period 2005-2011 and all the year-by-year proportion \(\chi^2\) statistics are significant at 1 % level. The overall results show that the proportion of dividend payers is larger in Large Cap compared to Mid Cap and Small Cap and therefore we cannot reject hypothesis 1.
Firms listed at Large Cap show a high propensity to pay dividends across the period 2005-2011, the trend is up going from 0.88 to 0.94, despite the drop in 2008. The McNemar’s test is insignificant which implies that the proportions of payers in 2011 compared to 2005 are not significantly different. The proportion of dividend payers ranges from 0.60-0.75 in Mid Cap and 0.37-0.53 in Small Cap across the period 2005-2011. The McNemar’s test is significant at 10 % level for Mid Cap and significant at 5 % level for Small Cap which implies that the proportion of dividend payers was larger in 2011 than in 2005. The pooled sample of the Market Caps shows that the proportion of dividend payers range from 0.56-0.69 and the McNemar’s test is significant at 1 % level. This implies that the proportion of dividend payers at Stockholm Stock Exchange was larger in 2011 than 2005. The overall results give no support for a decline in the proportion of dividend payers from a Market Cap perspective, hence we reject hypothesis 2.

**TABLE 3**

The Proportion of Dividend Payers by Caps and Industries, 2005-2011

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>McNemar’s Test† (0.00)‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Market Caps (200)</td>
<td>0.56</td>
<td>0.65</td>
<td>0.68</td>
<td>0.61</td>
<td>0.63</td>
<td>0.67</td>
<td>0.69</td>
<td>(0.025)‡</td>
</tr>
<tr>
<td>Large Cap (49)</td>
<td>0.88</td>
<td>0.92</td>
<td>0.92</td>
<td>0.86</td>
<td>0.92</td>
<td>0.94</td>
<td>0.94</td>
<td>(0.077)***</td>
</tr>
<tr>
<td>Mid Cap (52)</td>
<td>0.60</td>
<td>0.73</td>
<td>0.73</td>
<td>0.67</td>
<td>0.69</td>
<td>0.73</td>
<td>0.75</td>
<td>(0.011)**</td>
</tr>
<tr>
<td>Small Cap (99)</td>
<td>0.37</td>
<td>0.46</td>
<td>0.53</td>
<td>0.45</td>
<td>0.44</td>
<td>0.51</td>
<td>0.53</td>
<td>(0.011)**</td>
</tr>
<tr>
<td>Prop. Test χ²-statistic¹</td>
<td>(10,19)* (6,06)** (6,06)** (4,71)** (8,11)* (7,79)* (6,74)*</td>
<td>(33,49)* (28,49)** (22,42)** (21,92)** (30,70)* (27,05)* (25,05)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Industries (168)</td>
<td>0.55</td>
<td>0.65</td>
<td>0.68</td>
<td>0.60</td>
<td>0.61</td>
<td>0.65</td>
<td>0.68</td>
<td>(0.001)*</td>
</tr>
<tr>
<td>Basic Materials (13)</td>
<td>0.77</td>
<td>0.77</td>
<td>0.77</td>
<td>0.54</td>
<td>0.54</td>
<td>0.77</td>
<td>0.62</td>
<td>(0.000)*</td>
</tr>
<tr>
<td>Industrial (59)</td>
<td>0.69</td>
<td>0.80</td>
<td>0.86</td>
<td>0.75</td>
<td>0.75</td>
<td>0.81</td>
<td>0.85</td>
<td>(0.021)**</td>
</tr>
<tr>
<td>Health Care (25)</td>
<td>0.24</td>
<td>0.24</td>
<td>0.28</td>
<td>0.40</td>
<td>0.36</td>
<td>0.40</td>
<td>0.40</td>
<td>(0.019)</td>
</tr>
<tr>
<td>Consumer Services (27)</td>
<td>0.59</td>
<td>0.81</td>
<td>0.81</td>
<td>0.59</td>
<td>0.63</td>
<td>0.59</td>
<td>0.63</td>
<td>(1,000)</td>
</tr>
<tr>
<td>Technology (44)</td>
<td>0.45</td>
<td>0.57</td>
<td>0.57</td>
<td>0.52</td>
<td>0.59</td>
<td>0.59</td>
<td>0.66</td>
<td>(0.035)**</td>
</tr>
<tr>
<td>Prop. Test χ²-statistic²</td>
<td>(19,07)* (29,54)* (33,09)* (10,63)** (11,55)** (22,06)* (21,18)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Larger Cap to Mid Cap, ² Large Cap to Small Cap, † 2005 to 2005, ‡ 0.01, 0.05, 0.10

**H₅**=The proportion of dividend payers differs across the industries.

The proportion of payers ranges from 0.54-0.77 in Basic Materials, 0.69-0.86 in Industrial, 0.24-0.40 in Health Care, 0.59-0.81 in Consumer Services and 0.45-0.66 in Technology across the period 2005-2011. The year-by-year proportion χ² statistics are significant at 1 % level for the years 2005-2007, 2010-2011 and at 5 % level for the years 2008-2009. This implies that the proportions of dividends payers are not the same between the five industries and therefore we cannot reject hypothesis 5.

**H₆**=The proportion of dividend payers has decreased over the examined period of time in all industries

The pooled sample of the industries shows that the proportion of dividend payers ranges from 0.55-0.68 across the period 2005-2011. The McNemar’s test is significant at 1 % level, which implies that the proportion of dividend payers is higher in 2011 compared to 2005. We find no evidence for a decreasing proportion of dividend payers. All the five industries have increased their proportion of dividend payers, when we compare 2005 to 2011, except the Basic Material sector. But the McNemar’s Test was insignificant for the Basic material sector, which implies that we cannot statistically say that the proportion has decreased. Two industries, Industrial and Technology, have significant results at 5 % level, which imply that the proportion of dividend payers was larger in 2011 than in 2005. The Consumer Service and the Health Care sector had a larger proportion of payers in 2011 compared to 2005 but the McNemar’s test is insignificant. This implies that we statistically cannot say that the proportions have increased. The overall results give no support for a decline in the proportion of dividend payers from an industry classification perspective, hence we reject hypothesis 6.

6.1.2 Research Question 1: Discussion

Our result confirms the life-cycle theory, that is firm size is one characteristic that matters if firms chose to pay dividends. Almost all firms listed at Large Cap are dividend payers. We observe an exceptionally large increase of dividend payers in Small Cap. Analyses of the data reveal that the largest increase came from firms in the Technology sector. In 2005 there were 13 dividend payers from firms in the Technology sector in Small Cap while in 2011 there were 21. Firms in the Health Care and Industrial sectors had 14 dividend payers in Small Cap in 2005 and in 2011 there were 23. We can clearly observe the impact of the financial crisis from 2008-2009 when the proportion of dividend payers decreased. Large Cap was back at the previous
level of payers already in 2009, it took Mid Cap one year and Small Cap two years. We cannot find evidence for the substitution hypothesis (review section 3.1), because we did not observe a decline in the proportion of dividend payers across period 2005-2011. Fatemi & Bildik (2012) found evidence for a decline in the proportion of dividend payers in their study. Fatemi & Bildik (2012) collected data from a sample of 17,000 firms form 33 countries between 1985-2006. Their result from the Sweden points out that the proportion of payers decreased from 0.86 in 1996 to 0.48 in 2005 (Fatemi & Bildik 2012 pp. 662,665). Floyd et al. (2013) collected data from 194 081 financial and industrial firms in U.S.A between 1980-2011. Floyd et al. (2013) finds a decreasing number of dividend payers from 1980-2002, but then the trend reversed and the proportion of dividend payers increased (Floyd et al. 2013 pp.8, 10). These findings could indicate that the propensity to pay dividends fluctuates during different periods of time and maybe that is why we experience an increasing propensity to pay dividends after a period of decreasing propensity. Further studies need to be carried out in the future to examine the validity of this statement. A possible explanation could be that since 2005 investors started to favor dividends while managers modified payout policy, this is called the catering theory (Ferris et al 2009 p.1730). It is beyond the scope of this paper to investigate the validity of this theory but a study, considering this theory, needs to be carried out.

### TABLE 4

Mean of Payout Ratios by Market Caps and Industries, 2005-2011

<table>
<thead>
<tr>
<th>All Market Caps (n)</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Cap (n)</td>
<td>0.53(43)</td>
<td>0.49(45)</td>
<td>0.56(45)</td>
<td>0.52(43)</td>
<td>0.65(45)</td>
<td>0.53(46)</td>
<td>0.56(46)</td>
</tr>
<tr>
<td>Mid Cap (n)</td>
<td>0.50(31)</td>
<td>0.51(38)</td>
<td>0.48(38)</td>
<td>0.59(35)</td>
<td>0.55(36)</td>
<td>0.51(37)</td>
<td>0.55(39)</td>
</tr>
<tr>
<td>Small Cap (n)</td>
<td>0.57(37)</td>
<td>0.60(49)</td>
<td>0.52(52)</td>
<td>0.44(45)</td>
<td>0.69(44)</td>
<td>0.60(52)</td>
<td>0.58(52)</td>
</tr>
<tr>
<td>Mann-Whitney U 1</td>
<td>(0.47)</td>
<td>(0.81)</td>
<td>(0.26)</td>
<td>(0.37)</td>
<td>(0.05)**</td>
<td>(0.97)</td>
<td>(0.90)</td>
</tr>
<tr>
<td>Mann-Whitney U 2</td>
<td>(0.76)</td>
<td>(0.06)**</td>
<td>(0.96)</td>
<td>(0.15)</td>
<td>(0.44)</td>
<td>(0.25)</td>
<td>(0.73)</td>
</tr>
<tr>
<td>All Industries (n)</td>
<td>0.56(91)</td>
<td>0.53(110)</td>
<td>0.53(115)</td>
<td>0.45(100)</td>
<td>0.61(103)</td>
<td>0.58(110)</td>
<td>0.56(114)</td>
</tr>
<tr>
<td>Basic Materials (n)</td>
<td>0.74(10)</td>
<td>0.55(10)</td>
<td>0.44(10)</td>
<td>0.53(10)</td>
<td>0.60(7)</td>
<td>0.47(10)</td>
<td>0.57(8)</td>
</tr>
<tr>
<td>Industrial (n)</td>
<td>0.49(41)</td>
<td>0.56(47)</td>
<td>0.54(51)</td>
<td>0.44(44)</td>
<td>0.59(44)</td>
<td>0.60(48)</td>
<td>0.51(50)</td>
</tr>
<tr>
<td>Health Care (n)</td>
<td>0.45(6)</td>
<td>0.42(6)</td>
<td>0.34(7)</td>
<td>0.31(10)</td>
<td>0.50(9)</td>
<td>0.49(10)</td>
<td>0.57(10)</td>
</tr>
<tr>
<td>Consumer Services (n)</td>
<td>0.56(16)</td>
<td>0.54(22)</td>
<td>0.54(22)</td>
<td>0.58(16)</td>
<td>0.60(17)</td>
<td>0.56(16)</td>
<td>0.66(17)</td>
</tr>
<tr>
<td>Technology (n)</td>
<td>0.65(20)</td>
<td>0.58(25)</td>
<td>0.58(25)</td>
<td>0.41(21)</td>
<td>0.68(26)</td>
<td>0.63(26)</td>
<td>0.60(29)</td>
</tr>
<tr>
<td>K-W χ² statistic</td>
<td>(7.33)</td>
<td>(3.08)</td>
<td>(5.67)</td>
<td>(6.85)</td>
<td>(4.25)</td>
<td>(5.89)</td>
<td>(4.33)</td>
</tr>
</tbody>
</table>

* ** significance at 0.01, 0.05, 0.10.

1 Large Cap to Mid Cap, 2 Large Cap to Small Cap.

**From a Market Cap perspective we can conclude that the proportion of dividend payers is bigger in Large Cap compared to Mid Cap and Small Cap, as expected according to the life - cycle theory. The proportion of dividend payers has increased over the period of time that is firms were more likely to pay dividends in 2011 than in 2005. We also identified that the proportion of dividend payers has increased significantly in Mid Cap and Small Cap. From an industry perspective we can conclude that industry classification affects the propensity to pay dividends and the proportion of dividend payers has increased significantly in the Industrial and Technology sector.**

### 6.2 Research Question II: Results

Research question II has four hypotheses. Table 4 shows the results for the payout ratios and table 5 shows the results for the DPS.

H₃= Firms in Large Cap have larger payout ratios than firms in Mid Cap and Small Cap.

The mean payout ratio ranges from 0.49-0.65 in Large Cap, 0.48-59 in Mid Cap and 0.44-0.69 in Small Cap across the period 2005-2011. The M-W U test is significant in 2009 and insignificant 2005-2008 and 2010-2011 when we compare Large Cap to Mid Cap. This implies that we cannot statistically say that the payout-ratios are different between firms in Large Cap to firms listed in Mid Cap, except in 2009. The M-W U test is insignificant in 2005, 2007-2011 and significant 2006 when we compare the payout ratios for firms in Large Cap to firms in Small Cap. The overall results give no support for a higher payout ratio for firms in Large Cap compared to firms in Mid Cap and Small Cap, hence we reject hypothesis 3.

H₄= Firms in Large Cap pay more dividends (per share) than firms listed at Mid Cap and Small Cap

The average DPS ranges from 2.93-4.37 in Large Cap, 2.31-3.70 in Mid Cap and 1.34-2.02 in Small Cap across the period 2005-2011. The M-W U test is only significant at 10 % level in 2006 and insignificant in 2005,2007-2011 when we compare the DPS between firms in Large Cap to firms in Mid Cap. The overall results imply that we statistically cannot say that the DPS is different between firms in Large Cap and firms
in Mid Cap. The M-W U test is significant at 1% level across the period 2005-2011 when we compare the DPS between firms in Large Cap to firms in Small Cap. This implies that we can statistically say that firms in Large Cap paid more DPS to their shareholders than firms in Small Cap. The overall results give no support for hypothesis 4 and therefore we reject the hypothesis.

\[ H_{7} = \text{The dividend payout ratio differs across the industries.} \]

The mean payout ratio ranges from 0.44-0.74 in Basic materials, 0.44-0.60 in Industrial, 0.31-0.57 in Health Care, 0.54-0.66 in Consumer Services and 0.41-0.68 in the Technology sector across the period 2005-2011. The K-W \( \chi^{2} \) statistics are insignificant across the period 2005-2011. This implies that the payout ratios do not differ across the industries. The overall results give no support for different payout ratios across the industries during the period 2005-2011, hence we reject hypothesis 7.

\[ H_{8} = \text{The dividend paid (per share) differs across the industries.} \]

The average DPS ranges from 3.38-4.84 in Basic Materials, 2.26-3.58 in Industrial, 0.71-1.84 in Health Care, 2.25-4.64 in Consumer Services and in 1.21-1.80 in the Technology sector across the period 2005-2011. The K-W \( \chi^{2} \) statistics are significant across the period 2005-2011 at 1% level. This implies that the paid DPS between the industries is different. The overall results provide evidence for an influence of industry on the DPS, hence we cannot reject hypothesis 8.

<table>
<thead>
<tr>
<th>TABLE 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean of Dividends per Share (DPS) by Market Caps and Industries, 2005-2011</strong></td>
</tr>
<tr>
<td><strong>All Market Caps (n)</strong></td>
</tr>
<tr>
<td><strong>Large Cap (n)</strong></td>
</tr>
<tr>
<td><strong>Mid Cap (n)</strong></td>
</tr>
<tr>
<td><strong>Small Cap (n)</strong></td>
</tr>
<tr>
<td><strong>Mann-Whitney U 1</strong></td>
</tr>
<tr>
<td><strong>Mann-Whitney U 2</strong></td>
</tr>
<tr>
<td><strong>All Industries (n)</strong></td>
</tr>
<tr>
<td><strong>Basic Materials (n)</strong></td>
</tr>
<tr>
<td><strong>Industrial (n)</strong></td>
</tr>
<tr>
<td><strong>Health Care (n)</strong></td>
</tr>
<tr>
<td><strong>Consumer Services (n)</strong></td>
</tr>
<tr>
<td><strong>Technology (n)</strong></td>
</tr>
<tr>
<td><strong>K - W ( \chi^{2} ) statistic</strong></td>
</tr>
</tbody>
</table>

* , ** , *** Statistically significant at 0.01, 0.05, 0.10
1 Large Cap to Mid Cap, 2 Large Cap to Small Cap. DPS are measured in the local currency (SEK)

6.2.1 Research Question II: Discussion

There was no significant difference in the payout ratios between the Market Caps or between the industries. Fatemi & Bildik (2012) also concluded that it is rare for some industries to have larger payout ratios than others (Fatemi & Bildik 2012 p.672). These results are consistent with our findings. Fatemi & Bildik (2012) used the same method as we did that is the results are only for firms that paid dividends. However, Pandey (2003) found evidence of an influence of industry on the payout ratio. Pandey (2003) included firms, which did not pay any dividends. A comparison with Fatemi & Bildik (2012) points out that Sweden, in 2005-2011 had an overall higher mean payout ratio than mean of the 33 other countries. The mean of the payout ratio for the 33 countries ranged from 0.33-0.38 across the period 1985-2006.

Firms in Large Cap paid significantly more DPS than firms in Small Cap. We cannot statistically conclude that the firms in Large Cap paid more DPS than firms in Mid Cap. However, the M-W U test was significant when we compared firms in Mid Cap to firms listed at Small Cap (these results are available for the author’s but not presented in this thesis). This could indicate that several firms (in Large Cap and Mid Cap) range between 900-1100 billion Euros in market capitalization and therefore it could be difficult to distinguish the influence of firm size on the DPS between firms in Large Cap and firms in Mid Cap.

From a Market Cap perspective we can conclude that Market Cap listings do not influence the firms’ payout ratio. Firms in Large Cap pay significantly more DPS than firms in Small Cap but not significantly more than firms in Mid Cap.

From an industry classification perspective we can conclude that the payout ratios do not differ between the industries and there is an influence of industry on the DPS.

6.3 Research Question III: Results

Research question III has three hypotheses. Table 6 shows the regression results for Lintner’s model.
\( H_0 = \text{Current earnings and past dividends are important factors and positively related to current dividends across all Market Caps and industries.} \)

The coefficients of \( EPS_{i,t} \) and \( DPS_{i,t-1} \) are significant at 1% level for the pooled sample of the Market Caps. The coefficient term of \( EPS_{i,t} \) is significant at 10% and 5% level for firms in Large Cap and Mid Cap. The coefficient term of \( DPS_{i,t-1} \) is significant at 1% level for firms in Large Cap and Mid Cap. The coefficient terms of \( EPS_{i,t} \) and \( DPS_{i,t-1} \) are significant at 1% level for firms in Small Cap. A higher coefficient term of \( DPS_{i,t-1} \) in combination with a significant result could imply a greater importance for past dividends (Pankey 2003 p. 27). The coefficients of \( EPS_{i,t} \) and \( DPS_{i,t-1} \) are significant at 1% level for the pooled sample of the Industries. The coefficient term of \( DPS_{i,t-1} \) is significant at 1% level for firms in the Basic Material and the Industrial sector, significant at 10% level for firms in the Consumer Services and the Health Care sector but insignificant for the firms in the Technology sector. The insignificant result for \( DPS_{i,t-1} \) could imply that the firms in Technology sector are not influenced by past dividends in the current years’ dividend policy. The coefficient term of \( EPS_{i,t} \) is significant at 1% level for the firms in the Basic Materials, Industrial and Technology sector. \( E_{i,t} \) is significant at 10% level for firms in the Health Care sector but insignificant for the firms in the Consumer Service sector. All coefficients have a positive sign.

The overall results provide evidence that current \( EPS \) and past \( DPS \) are important factors in deciding current years’ \( DPS \) when firms are classified into Market Caps. But the overall result gives no evidence for current earnings and past dividends to be important factors in deciding current years’ \( DPS \) when firms are classified into Industries and therefore we reject hypothesis 9.

**TABLE 6**

<table>
<thead>
<tr>
<th>Regression Results: Lintner’s Model by Market Caps and Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Market Caps</strong></td>
</tr>
<tr>
<td>( \tau )</td>
</tr>
<tr>
<td>All</td>
</tr>
<tr>
<td>Large Cap</td>
</tr>
<tr>
<td>Mid Cap</td>
</tr>
<tr>
<td>Small Cap</td>
</tr>
<tr>
<td>All Industries</td>
</tr>
<tr>
<td>Basic Materials</td>
</tr>
<tr>
<td>Industrial</td>
</tr>
<tr>
<td>Health Care</td>
</tr>
<tr>
<td>Consumer Services</td>
</tr>
<tr>
<td>Technology</td>
</tr>
</tbody>
</table>

- ***, ** Statistically significant at 0.01, 0.05, 0.10.
- **TPR (p): Target payout ratio. SoA (\( \tau \)): Speed of adjustment. \( \tau \): The average fixed effect for all firms.
- **ECS and DPS are measured in the local currency (SEK). T-statistic within the parenthesis. Clustered-robust standard errors are used.**

\( H_{10} = \text{Firms in all Market Caps are regular in their payments but firms in Large Cap have a higher adjustment factor and therefore follow less stable dividend policies than firms in Mid and Small Cap.} \)

All the intercepts are significant. This implies that firms, on average, are reluctant to avoid dividend payments. This indicates that they pay dividends regularly. Firms listed at Large Cap have 0.80 in SoA factor, firms in Mid Cap 0.68 and firms in Small Cap 0.78. This implies that firms in Large Cap have the highest SoA factor. A SoA factor over 0.50 indicates that firms quickly adjust their dividend payments when earnings change, which indicates that dividend smoothing is of lower rank when firms decide on their policies (Pankey 2003 p. 28). All together, the results indicate unstable dividend policies, which cause volatility in the payments. The overall results provide evidence that firms are regular in their payments and that firms in Large Cap have a higher SoA factor than firms in Mid Cap and Small Cap and therefore we cannot reject hypothesis 10.

\( H_{11} = \text{Regardless industry classification firms follows, on average, stable dividend policies.} \)

Firms in Basic Materials, Industrial, Consumer Services and the Technology sector have, on average, significant intercepts, which implies that firms in those sectors are, on average, reluctant to avoid dividend payments. This indicates that they pay dividends regularly. All industries, except the Health Care sector, have high SoA factors and all industries have low target ratios. The overall results reflect the absence of dividend smoothing, which causes volatility in the payments. The results suggest that any variations in earnings are quickly reflected in the dividend policy. However, there are some variations across the industries as we observe that firms in the Technology sector have the highest SoA factor of 0.85 followed by firms in the Consumers Services sector. Altogether our
results provide no evidence that firms across all industries follow stable dividend policies, hence we reject hypothesis 11.

6.3.1 Research Question III: Discussion

The overall result across the Market Caps supports the life-cycle theory due to the higher SoA factor and larger average intercept for firms in Large Cap. We also find an influence of industry on the dividend policy through Linter’s model due to the differences in the SoA-factors.


We observe that the SoA factor is much higher for the Swedish firms, however it could be explained by the sample period. Our study covers an exceptional and turbulent time period and it is hard to neglect the impact of the financial and the Euro crisis. If we had expanded the investigated time period to cover 20 years and controlled firm and time effects our results could have been different. One interesting point is that the target payout ratio is exceptionally lower compared to table 4. However, this result is not unusual compared to other studies (Andres et al. 2009, Al-Najjar & Belghitar 2012, Pandey 2003). This could indicate that Swedish firms do not base their dividends decision on the long-term target payout ratio, as suggested by Lintner (1956). An alternative, suggested by Andres et al. (2009), could be that the target payout ratio is expressed in another measure, Cash Flow per share (CPS). Andres et al. (2009) switched EPS to CPS (in Lintner’s model) and found a target payout ratio, which was closer to reality (Andres et al. 2009 p.184). A study that considers CPS instead of EPS (in Lintner’s model) should be carried out, based on Swedish firms, to fill the research gap in this matter.

From a Market Cap perspective we can conclude that firms across all Market Caps are reluctant to avoid dividend payments. Current earnings and past dividends are important factors when firms decide on their polices. Firms follow unstable dividend policies where dividend smoothing is of lower rank and firms at Large Cap have a higher SoA factor than firms in Mid and Small Cap. From an Industry Classification perspective we can conclude that firms across all industries, except firms in the Health Care sector, are regular in their dividend payments. Current earnings and past dividends are not important factors across all industries. Firms across all Industries follow unstable dividend policies.

6.4 Integrated Discussions and Analysis.

According to table 4 there was no difference in the payout ratios when we classified the firms after market capitalization and industries but we observed a difference in the DPS, which allows us to draw several conclusions about the profitability (EPS) because payout ratio=DPS/EP.

Firms listed at Large Cap must have higher profitability than firms in Mid Cap and Small Cap when we consider the results in table 4 and compare it to table 5. As claimed by the Life – cycle theory we know that larger firms are more profitable, which implies that they are more likely to be dividend payers. An inspection of table 3 confirms the result. The proportion of dividend payers was, on average, 0.90 at Large Cap. The intercept in table 6 also confirms the result, as we notice that larger firms pay more DPS in their “minimum” payments. This result provides evidence that is consistent with the life-cycle theory.

Table 5 shows that Basic Material is the overall most profitable industry across the period 2005-2011 followed by the Consumer Services and Industrial sector. The Health Care sector is the least profitable industry, which also is reflected by having the smallest proportion of dividend payers. In table 6 we observe that firms in the Health Care sector are not regular payers, which indicates that earnings could be the most important determinant of the dividend payout. The t-statistic is slightly higher, which also could confirm the conclusion. The fact that firms in the Health Care sector are less profitable explains the result in table 3 and table 6. An inspection of current EPS for the dividend payers confirms the lower current EPS compared to firms in other industries (these results are not published in this thesis, but available for the author’s).

7. Conclusion

In this section we will sum up our main findings and come up with suggestions for future research.

7.1 Conclusions

The aim of this study is to examine the dividend policy behavior of firms listed at Stockholm Stock Exchange from 2005-2011. We chose to do the analysis from a Market Cap and Industry Classification perspective due to the structure of Stockholm Stock Exchange.

Our main findings from a Market Cap perspective are as follows: Firms in Large Cap have the highest propensity to pay dividends but the proportion of dividends payers has increased significantly in Mid Cap and Small Cap across the period 2005-2011. Market Cap listing does not influence the firms’ payout ratio. Firms in Large Cap paid more DPS than firms in Small Cap but not significantly more than firms in Mid Cap. Current EPS and past DPS are important factors when firms decide on their dividend policies. Firms tend to favor regular but unstable dividend policies despite Market Cap listing while firms in Large Cap have the highest adjustment factor.

Our main findings from an industry classification perspective are as follows: There is an influence of industry on the propensity to pay dividends and the proportions of dividend payers has increased across the period 2005-2011, but the increase is not significant in all industries. There was no significant difference
between the payout ratios across the industries. There is an influence of industry on the DPS. Current EPS and past DPS are not important factors for firms in some industries when they decide on their dividend payments. Firms in all industries follow unstable dividend policies. Firms in all industries, except firms in the Health Care sector, favors regular dividend payments.

Our main conclusions are as follows: Market Cap listing and Industry Classification matters for the propensity to pay dividends, but we observe that smaller firms are more likely to pay dividends in 2011 than in 2005. Market Cap listing or industry classification does not influence the firms’ payout ratio. Market Cap listing affects the size of the DPS paid but not significantly when we compared firms in Large Cap to firms in Mid Cap. Industry classification will affect the size of the DPS paid. EPS and past DPS are major determinants for current DPS when firms are divided into Market Cap listing. EPS and past DPS are not major determinants for firms in all industries if the firms are divided after group characteristics. The firms follow regular but unstable dividend policies despite Market Cap listing. Firms in the Health Care sector follow irregular and unstable dividend policies while the firms in the other industries follow regular but unstable dividend policies.

There are several issues of dividend policy for future research in Sweden. A study should be carried out based on the catering theory to see if investors have started to favor dividend payments and if managers have modified their behavior. We also recommend a study to come out over a longer period of time so as to test variations of Lintner’s model with CPS instead of EPS to see if the target ratio is better expressed in the CPS. A comparative study between the Scandinavian countries could be of interest.

* Sample firms and data used in this study can be provided by request.

** We appreciate comments from Jan Sidersten professor at Uppsala University, Regina Persson, Robert Persson M.Sc. Lund University, George Silissoe M.Sc. Lund University and seminar participants at Ekonomikum (2013-05-21), Uppsala University.

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