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The Impact of Anchor Investors on Dividends: Do Exchange Traded Funds Determine Dividend Policies in Germany?

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Abstract. A broad and growing body of literature investigates the influence of equity-based agency costs on dividend policies all around the world. Given that the 2008 financial crisis has shifted investors' affinity from active investment funds to cheap, passive Exchange Traded Funds (ETFs), the present paper expands the established view on dividend policies by controlling the influence of anchor investors such as ETFs. Basically, the theoretical impact is ambiguous: On the one hand ETFs are passive in nature and predominantly aim to replicate the composition of an index with the least possible tracking error. Consequently, it is not their primary objective to exercise control. On the other hand, those kinds of passive investors are participating in the company over a long period of time; they hold permanent positions until the composition of the index changes. Accordingly, if it is not an option to sell shares, the exercise of control rises in significance. Using the Heckman Two-Step approach, it is found that block equity investors that hold at least 50 per cent of the companies' outstanding shares reduce the probability of paying out a dividend. Correspondingly, dividend yields decrease if 25–50 per cent of the outstanding shares are held by the largest equity claimant. The results show that concentrated ownership goes hand-in-hand with superior information and dividends are more dispensable for signaling purposes. Even though their importance increased considerably after the financial crisis, no statistically significant influence of anchor ETF investors on dividends could be detected for German prime standard issuers between 2007 and 2014.

Keywords: payout policy, ownership concentration, exchange traded funds, anchor investors

1. Introduction

Even though scientific research has been engaged in detecting the firm-specific drivers of dividend policies for a long time, all the pieces of the puzzle are not yet in place [24]. Most familiar, explanatory variables are derived from trade-off theory and pecking order assumptions [11]. In addition, agency-based implications contribute to explain corporate distributions [21]. Ownership concentration is one of the most popular solutions to overcome free-cash-flow problems [20]. However, the influence of block-investors on dividends is ambiguous: On the one hand dividend payments reduce the risk that free cash-flows are misallocated by managers and downsize information asymmetries [9]. Accordingly, fewer dividend payments are required if large ownership is associated with superior information and dividend yields are expected to decrease if equity investors hold a considerable proportion of funds [4, 18, 22]. On the other hand, if managerial shareholders intend to take private benefits from cash, dividends increase due to managerial entrenchment [13]. In addition to the concentration of ownership, the identity of the anchor shareholders [15] and shareholder activism [23] plays a major role. External block-holders urge for profit distributions to be made if they face increasing information asymmetries. Moreover, active shareholders such as hedge funds desire current income in the form of dividends in order to realize short-term profit. Consequently, the impact of opposing key shareholder groups is also particularly important [5]. The present paper analyses the payout behavior of German prime standard issuers, which is stated to be more flexible than in other frequently investigated countries like the USA [14]. The sample period of 2007 to 2014 covers the financial crisis as well as the following sovereign debt crisis and offers exiting surroundings for the

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analysis of heterogeneous payout behaviors. The paper contributes to the current state of research in the following ways:

First, the recent financial crisis has changed both companies' business environment and investors' affinity; and has increased the importance of passive investors. Considerable amounts of funds are reallocated from expensive, active to cheap, passive funds such as exchange-traded funds [6], especially since the most recent financial crisis. Although it is straightforward to assume that passive investors simply replicate indices for tracking purposes and do not exert influence on corporate payout policy, the reality is more complex. As a consequence of the managers of ETFs being more strongly committed to their investments than are active investors, they cannot simply sell their shares if performance does not meet their expectations. Consequently, in order to exercise corporate control, they might vigorously demand dividend payments.

Second, an analysis employing different ownership variables based on Morck et al. (1988) [27] examines whether anchor investors increase or decrease payout possibilities and dividend yields. Dividing ownership concentration into four strategic groups helps to increase understanding of the influence of equity holding on distribution behaviors.

Third, the Heckman Two-Step procedure is employed to correct for the selection bias that dividend research implies. This estimation technique aims at delivering additional insights for firm-specific determinants of dividend policies and provides unbiased results.

The paper is organized as follows: the next section discusses related research, and section three introduces the data set and the applied measurement technique. The results are presented in section 4. Section 5 concludes.

2. Shareholder Identity and Dividend Policies

Based on the current state of research, managerial ownership can promote or hinder the payment as well as the size of dividends. The negative impact of managerial ownership can be explained either by managers' informational advantage or by the extraction of a rent from small, outside shareholders by larger owners [30]. The potential for free-cash-flow abuse and opportunistic behavior increases with the amount of money that is left under management's control [16]. If the level of managerial ownership is particularly high, the negative impact can turn into a positive one, because to diversify their private portfolios managers favor liquidity instead of reinvestment [7].

The impact of big block institutional shareholders on dividends is frequently stated to be negative, because institutional investors commonly have informational advantages over private investors [28] and strong incentives to monitor the issuer's management. If managers are effectively controlled, the need for dividend distribution as a monitoring mechanism becomes redundant and the probability of dividend payments sinks [2, 25, 29].

Since corporate governance systems, shareholder rights and taxation conditions vary from country to country, and the determinants of dividend policies appear to be country-specific [3, 29]. The preferential taxation of dividends for institutional shareholders over retail investors would attract even more institutions [1]. Besides the pictured clientele effect, the need for permanent cash inflow [1] as well as individual capital allocation restrictions [19] cause institutional investors to claim dividend payments. As a result, institutional investors prefer stocks that pay a dividend, but at a low level [19]. Since low distributions can display promising growth opportunities, institutional investors might favor good prospects over current income due to their information advantage.

As the financial market crisis changes investment behaviors, a deeper analysis of the impact of shareholders' preferences about dividends seems to be necessary. Notably, ETFs have experienced significant inflows after the crisis, so that their impact on dividend policies might contribute to an increased understanding of modern corporate payout decisions. However, the theoretical impact of ETFs on dividends appears to be inconsistent: On the one hand ETFs have a passive nature because they aim to replicate the compilation of an index as precisely as possible. In order to minimize tracking error, they are not interested in exerting pressure on corporate managers. On the other hand their motivation to wield influence can be

based on the long periods for which they invest. In general, ETFs hold their investments constant until the composition of the index changes. Consequently, the execution of voting rights becomes more important when shares cannot be traded on a free basis. As a result of that increased importance on the one hand and the unclear theoretical influence on the other hand, the described extension of the current state of research seems promising.

3. Data and Methodology

3.1. Sample definition and endogenous variable

The investigation period covers the years from 2006 to 2014, which include the outbreak of the financial market crisis in 2008 and the following sovereign debt crisis. With the highly concentrated ownership structure of German firms and the minor importance of corporate low, Germany offers optimum conditions for investigation during the period of interest [15]. All data is obtained from the S&P Capital IQ database and the ownership concentration is cross checked with the annual business reports. To avoid survivorship bias, the composition of the German Prime Standard index as of January 2007 is kept constant.

As 403 companies were listed at that time the investigation starts with 3,224 yearly observations over the complete sample period. Overall, 160 yearly observations are discarded to avoid double-counting when firms have both common and preferred stocks outstanding; in these cases the more liquid share class remains in the sample. A further 80 yearly observations are eliminated because they use a different reporting currency than the EUR. Due to the special balance sheet structure of financials and utilities and owing to REIT companies' external dividend regulations, 296 yearly observations are not adopted in the final sample. Next, 699 yearly observations with missing data due to de-listings, takeovers, or liquidations are excluded. Finally, 208 observations with negative book values of equity or large one-off dividend payments are discarded. Hence, the final sample totals 1,781 yearly observations. For the empirical analysis, we create a dummy, PAYER, that equals one if an issuer pays out a dividend, and zero otherwise. Dividend yields (YIELD) are measured as total annual dividends in relation to a company's revenue.

Tab. 1: Sample descriptive statistics on dividend payouts, initiations and omissions

Year	2007	2008	2009	2010	2011	2012	2013	2014
Companies	234	234	229	227	225	219	209	204
PAYER	136	149	133	128	152	154	148	143
Mean PAYER %	58.1	63.7	58.1	56.4	67.6	70.3	70.8	70.1
Std. Dev PAYER %	49.3	48.2	49.5	49.7	46.9	45.8	45.6	45.9
Mean YIELD %	1.7	1.9	1.5	1.7	2.3	2.0	2.2	2.3
Std. Dev. YIELD %	3.0	2.7	2.2	3.1	4.0	2.6	2.9	4.2
Initiations	16	20	10	17	27	16	9	4
Omissions	8	6	24	18	5	10	9	7

The quota of dividend-paying companies ranges from 56.4 per cent in 2010 to 70.8 per cent in 2013. In total, 1,145 yearly dividend payments, 119 dividend initiations and 87 dividend omissions can be observed. Dividend cuts peak in 2009 with 24 observations with only 10 initiations in this year. The greatest number of dividend initiations occurs in 2011, with a total of 27 observations. The sample firms distribute between 1.5 and 2.3 per cent of their turnover on average. Altogether, these findings promote the frequently pictured flexible payout policies of German firms.

3.2. Explanatory variables and methodology

Based on Morck et al. (1988) [27] different ownership variables are implemented in order to control for the possible nonlinear impact of anchor equity investors:

CONTROL 0.00-0.05	= ownership < 0.05,
	= 0.05 if ownership > 0.05;
CONTROL 0.05-0.25	= 0 if ownership < 0.05,
	= ownership – 0.05 if ownership between 0.05 and 0.25,
	= 0.20 if ownership > 0.25;
CONTROL 0.25-0.50	= 0 if ownership < 0.25,
	= ownership – 0.25 if ownership between 0.25 and 0.50,
	= 0.25 if ownership > 0.5;
CONTROL 0.50-1.00	= 0 if ownership < 0.50,
	= ownership – 0.50 if ownership between 0.50 and 1.00

The methodology is particularly suitable for the present investigation since the anchor-investors' influence increases with the achievement of any one of the four specified groups. The 0 – 5 per cent block shows anchor investors that have fewer opportunities to exercise control because their voting power is limited. The influence of anchor investors increases within the next category: Depending on the shares represented at a shareholders' meeting, the opportunity for the 5 – 25 per cent block to exercise control might be sufficient to inhibit a qualified majority. For a finer subdivision the 25 – 50 percent block is implemented as an extension to Morck et al. (1988)'s [27] investigation. Finally, CONTROL 0.50 1.00 is a particularly important class for distribution assumptions, because an absolute majority enables the largest shareholder to determine dividends self-reliantly.

Besides the CONTROL-variables, the "ETF" variable is measured binarily and values one if ETFs are the largest investors of the company, zero otherwise. In addition, to control for the size of stock ownership the variable is multiplied by the corresponding ownership concentration of the ETF investor. We review and cross-check the shareholder structure with data from the annual report of each company within the study period.

In addition to these ownership variables, several firm-specific determinants such as profitability, size, leverage, and cash are frequently associated with the impact of corporate payments [10, 12]. The supposed positive influence of the firm's self-funding capability is controlled by the ratio of operating cash flows to total assets (CFA). Since the finance structure plays a notable role in previous studies, DEBT is captured by the ratio of total debt to total equity. To measure the size and maturity of the company, total assets (ASSETS) as well as the market capitalization measured as the total Euro value of the company's outstanding shares (CAP) seem particularly appropriate. Due to the high correlation between ASSETS and CAP, a principal component analysis downsizes the dimension to one latent variable (SIZE). As frequently in the literature, the natural logarithm of the wide-ranging size measure is calculated [8, 11]. In order to measure the turnover growth (GROWTH) the percentage change in turnover is compared to the previous year's figure. It is expected that growing turnover measures promote expansive dividend policies. It remains unclear which direction of influence dominates for cash reserves: High cash reserves can either indicate a high level of profitability, or the raising of additional funds to meet expected future problems. Finally, a dummy variable (HISTORY) is implemented that equals one if a firm has paid dividends in the previous year and zero otherwise. Due to the well-known preference of managers to hold dividends on a constant level, a strong positive influence of the historical dividend policy on the payout probability is assumed [26]. For the following investigation all the explanatory variables are lagged by one year to account for their causality on changes of the dividend in period t+1.

To correct for the selection bias that dividend research implies, the Heckit two-step procedure is used for the present investigation. Within the first step the probability of paying a dividend is estimated with a random-effects panel logit model. As a result of the logit-estimation, the correction factor "Inverse-Mills-Ratio "(IMR) is calculated. The IMR is the ratio of the probability density function to the cumulative

distribution function of the panel models' fitted values. IMR reflects all the unmeasured characteristics of the dependent variable and therefore helps to minimize selection bias [17]. In the second step the correction factor is implemented in the panel-regression model as a further controlling variable to get unbiased results for the dividend yield estimation. If IMR has significant explanatory power it suggests that a sampling selection bias exists.

4. Empirical Results

The estimates and t-values of the panel logit-analysis and of the regression analysis with the IMR are summarized in Table 2.

Tab. 2: Results of the Heckman Two-Step estimation

Coefficients	Estimate Payout Probability	Estimate Dividend Yield	t-value Payout Probability	t-value Dividend Yield
Constant	0.1174	0.0859	1.8275*	1.4833
Control 0-5%	-0.8380	0.1002	-1.4462	1.1251
Control 5-25%	0.1650	-0.0234	1.5597	-1.0481
Control 25-50%	0.1126	-0.0311	1.4860	-1.8391**
Control 50-100%	-0.2113	0.0076	-2.9871***	0.4677
ETF	-0.2641	-0.0062	-0.4259	-0.1112
CFA	0.5092	-0.0072	8.3127***	-0.3386
CASH	-0.0504	0.0466	-1.2177	5.2095***
GROWTH	0.0117	0.0050	0.6861	1.2861
lnSIZE	0.0210	-0.0006	6.8446***	-0.5401
DEBT	-0.0939	-0.0803	-2.7451***	-8.5307***
HISTORY	0.7640	-0.0308	52.3678***	-1.0277
IMR		-0.0931		
Signif. codes: 0.01'***' 0.05'**' 0.1'*'				

Given that the IMR does not have a significant impact in the regression model, the null hypothesis, "no sampling selection bias", is not denied. While the estimate for the payout probability for the "CONTROL 50 – 100%" variable suggests dividend payments are more unlikely than likely to be made, the "CONTROL 25 – 50%" variable has a negative impact on the estimate of the dividend yield. Companies decide not to distribute their profits in the form of cash dividends when a single shareholder owns a majority of shares. Besides the propensity to pay a dividend, the distributed amount of money also decreases with high concentration of ownership; and dividend yields shrink if the main equity investor controls between 25% and 50% of the company. The results support the consideration that concentrated ownership elevates the right to monitor managers and the possibilities for doing so; and reduces agency costs. Dividend signaling becomes redundant when shareholders' voting power is high.

Additionally, DEBT influences the probability of paying negative and reduces the distributed amount of money. HISTORY, lnSIZE and CFA increase the likelihood of dividend payments, and HISTORY is by far the most important variable (t-value > 52).

Apart from the anchor investor, DEBT and CASH also show significant estimates for the dividend yield. As expected, the dividend ratio decreases the more the firms are indebted. The controversial influence of CASH is positive; firms that hold considerable cash reserves pay high dividends. The analysis does not show statistical significant estimates for the ETF variable; either on the probability to pay or the probability not to pay a dividend yield.

5. Conclusion

This study evaluates the theoretical assumed effect of large equity block investors and ETF anchor investors on pay-out policies. Using the two-step Heckman model, the analysis finds a significant negative influence of large block investors on both the probability payoff paying and the dividend yield. The results go hand-in-hand with the assumption that dividends might compensate for information asymmetry and are undesired by well-informed investors.

Contrary to those assumptions, the survey does not find any evidence for a link between Exchange Traded Funds and the dividend policy of German prime standard issuers. As ETFs control companies in only two per cent of the observations, their low number might be responsible for the unforeseen results.

As the importance of ETF investors has increased in recent years, future investigations might provide different outcomes. The initial question as to whether passive investors influence distribution policies remains a promising avenue for further research.

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