The influence of national culture in Europe on cash dividend payout

Nico Bennink
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

In this paper we investigate the relationship between culture and cash dividend payout. We utilize two dimension of national culture from Hofstede's framework as proxies for culture to be able to perform a regression analysis. We propose that culture provides additional explanatory power in determining variations in cash dividend payout. Our results indicate a negative relationship between the cultural dimension uncertainty avoidance and dividend payout. However, this result was not robust to the use of another measure for cash dividend payout. Additionally, we find a positive relationship between the cultural dimension of collectivism vs. individualism and cash dividend payout. To clarify, a higher score for individuality resulted in higher expected cash dividend payout. Interestingly, previous literature and empirical evidence pointed to the inverse direction for this relationship. Finally, our results support our proposition that culture can help explain variations in cash dividend payout. Although, its additional explanatory power is rather low, it is statistically significant.

Graduation Committee members:
H. van Beusichem
X. Huang
R. Kabir
S. Zubair

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1. INTRODUCTION

Finance is a widely researched area, however there is much to be explored. Payout policy for example is a part of the financial management literature that is not fully explained. Even though payout policy is important to both investors and the organizations they invest in. The complex concept still needs further research to be completely understood. Payout policies determine when and how cash is returned to investors and can thereby affect firm valuation and taxes to be paid by investors. According to signaling theory it can be used to reduce information asymmetry between investors and organizations. Dividend payments and share repurchases are the primary methods used to return cash to investors and both have their advantages and disadvantages. Ultimately firms decide which advantages or disadvantages are more important to them when deciding to pay dividends, repurchase share or combine these options to return cash to investors. There are many variables that influence the relative importance that firms put on certain pros and cons. This results in highly variating payout policies among firms.

Aggarwal et al. (2016) suggest culture can be one of the variables that influence financial decision making and is therefore an interesting topic to look into. They argue that "Culture influences perceptions, preferences, and behaviors and, therefore, action outcomes by and perceived utilities of the financial decision maker(s). It does so directly by influencing decisions and through institutions by shaping decisions and information costs. Ignoring the role of culture thus risks omitting an important variable from an analysis of financial decision-making." (Aggarwal et al., 2016, p. 467). In this context culture could be seen "as those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation" (Guiso et al. 2006, p.23)

Additionally they posit that as culture is primarily based in other fields of research, such as anthropology, sociology and cross-cultural psychology, it has the potential to bring about new insight when applied to a financial context which might be overlooked otherwise (Aggarwal et al., 2016). Khambata and Liu (2005), Shao et al. (2010) and Bae, Chang and Kang (2012) recognized the impact that culture can have on financial decisions and examined culture's impact on dividend policy. Their findings support the notion that culture is related to dividend payout. This paper will attempt to build upon this understanding by investigating the concept with slight alterations in the methodological approach and with a more recent dataset. The contribution to literature will be additional empirical analysis on culture's impact on dividend policy. To accomplish this we will attempt to answer the question:

Does culture affect cash dividend payout?

We do this by examining a sample of 7644 firm-year observations from 10 different euro countries. The sample was constructed with data provided by the ORBIS database.

The results showed that the cultural variable uncertainty avoidance is negatively related to cash dividend payout. However, this was not robust to another proxy for cash dividend payout. Additionally the results showed a positive relationship between individualism and cash dividend payout. Which is quite surprising. All in all, we agree with the findings of previous research that culture does in fact affect cash dividend payout.

In the next section we will explore the theoretical links between the concepts and develop our hypotheses to help answer the research question. In section 3, we clarify our regression models and define all the variables that we use in the regression models. Additionally, we go through the steps that lead to the final sample. Our findings are presented in section 4 and are subject to preliminary analysis. Finally, we present our conclusions, limitations and some avenues for future research in section 5.

2. THEORETICAL FRAMEWORK

2.1 Culture and Dividends

The connection between business practices and culture has seen research in multiple disciplines such as organizational design, business performance, compensation practices, managerial attitudes, marketing and accounting practices (Aggarwal et al., 2016). Similarly there has been more research concerning culture's effect in financial decision making on an individual level, firm level and national/institutional level (Aggarwal et al., 2016). One of those lines of research investigates the effect of culture on payout policy. For example, Khambata and Liu (2005) hypothesize that risk aversion affects the dividend policy of firms. They posit that managers with higher risk aversion are more inclined to minimize the default risk by keeping more cash on hand and paying less cash dividend. In their study they link risk aversion to culture by using Hofstede's uncertainty avoidance dimension. This dimension describes how accepting a culture is to uncertainty and ambiguity. Consistent with their hypothesis, they find strong evidence that firms with higher risk aversion have low dividend-earnings ratios and are also less likely to be a dividend payer. If risk-aversion in this context is similar to uncertainty avoidance, a similar relation between uncertainty avoidance and dividend payout is to be expected. Shao et al. (2010) investigate the relationship between culture and corporate dividend policies while taking legal protection in account. In their research they employ the cultural framework from Schwartz's (1994). They focus on the condensed national culture dimension of conservatism and mastery. Conservatism in this sense is defined as the believe that individual interests should be reconciled with group interests. This dimension is regarded as being similar to the individualism-collectivism dimension. Mastery emphasizes on independence and success. Utilizing the "bird in hand" theory, signaling effect theory and agency theory they argue that firms in countries with high conservatism tend to have higher dividend payouts. Utilizing agency theory and pecking order theory they hypothesize that mastery countries, on the other hand, tend to have lower dividend payouts. They find consistent with their hypotheses that conservatism is positively related to dividend and mastery is negatively related to corporate dividend payouts. Another research investigating culture and dividend payouts is that of Bae, Chang and Kang (2012). Using an extensive dataset with over 100 000 firm observations spread over 33 countries, they offer additional evidence supporting culture's effects on dividend payouts. They find that the cultural dimensions of masculinity vs. femininity, uncertainty avoidance and time orientation as described by Hofstede (1980, 1991) remain significant in determining firms' dividend levels after controlling for corporate governance factors. The strength of corporate governance, measured as the degree of investor protection affects this association (Bae, Chang and Kang, 2012). They hypothesize that if uncertainty avoidance is high, managers would prefer to hold on to more cash and pay lower dividend to avoid financial problems. Implying a negative relation between uncertainty avoidance and dividend payout. However they argue that investors would prefer the opposite considering the "bird in hand" theory. Therefore they hypothesize that the actual dividend payout depends on investor rights protection when uncertainty avoidance is high. They argue in a similar manner that in a highly masculine society performance driven managers would attempt to hold on to more cash to be able to exploit investment opportunities that may arise, because of the asymmetric nature of larger performance reward than punishment. This similarly

suggests a negative relation between highly masculine societies and dividend payout. However, they argue that investors in such a society may pursue more control in the allocation of the firm's resources and prefer more dividend. Therefore, if investor rights protection is taken into account the relation would be similar to that of uncertainty avoidance. Bae, Chang and Kang (2012) find that power distance and individualism-collectivism dimension are highly correlated with the long term orientation dimension and uses the latter as a proxy variable for the two former dimensions. Consistent with their hypotheses, Bae, Chang and Kang (2012) find that the three variables are significant and negatively related to dividend payouts. Thus, firms are expected to pay less dividends in highly masculine, high uncertainty avoiding and long term orientated societies.

2.2 Cultural Framework

Culture is justifiably described as a concept that is difficult to define (Aggarwal et al., 2016). To be able to investigate culture's impact on anything it has to be measurable. Cross-country studies in finance literature that investigated finance and culture have mostly relied on four cultural datasets to do so (Aggarwal et al., 2016). These datasets are from Hofstede, Schwartz, Globe and the World Values Survey (WVS). These datasets have in common that they measure culture through differences observed between countries. The scores, therefore, do not specifically reflect culture. They rather reflect observed differences between countries that are associated with culture. The proxies used to measure culture more closely reflect national culture instead.

This research will use the cultural framework designed by Hofstede (1980, 1991). Dimensions of national culture will be utilized to measure culture. This framework may seem dated, however Williamson (2000) argues that informal institutions like culture change very slowly over time. Culture changes over the duration of centuries or millennia (Williamson, 2000). The definition of culture by Guiso et al. (2006, p.23) who define culture "as those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation" backs up the view that culture is a slow changing concept. Further supporting the usefulness of this framework is the argument of Kirkman et al. (2006). They argue in their review of studies incorporating Hofstede's framework that the dimensions of national culture are relevant for cross-cultural even when considering their limitations.

A short summary of the dimensions of national culture as derived from Hofstede (1980, 1991) is as follows. Power distance index is the extent to which a culture accepts and expects unequal distribution of power in society and organizations. Individualism vs collectivism: In individualistic societies ties between individuals are loose and everyone is expected to look after themselves or immediate family and in collectivistic societies people are from birth on forward integrated into strong, cohesive in-groups which will continue to protect individuals throughout their lifetimes in exchange for unquestioning loyalty to the group. Masculinity vs. Femininity is mostly about assertiveness versus modesty, but additionally is refers to the rigidness of gender roles in a society, Wherein masculine societies have very rigid gender roles as opposed to more loose gender roles in a feminine society. Uncertainty avoidance is the extent to which members of a society feel threatened by ambiguous or unknown situations. Lastly, Long term orientation refers to the fostering of values and virtues that are orientated towards future rewards, whereas short term orientation refers to fostering those related to the past and the present.

2.3 Hypotheses

The aforementioned studies investigated the notion that culture influences corporate payout policies and their finding do support that point of view. However, the financial data with which these findings are supported range from 1993 to 2007. This can be considered to become dated. We expect similar results as previous studies on the effects of national culture on dividend policy. Yet, it is still interesting to investigate the subject further to provide additional empirical evidence from a different time period. It is interesting whether they support previous findings or contradict them. The latter would raise additional questions on the reason behind the inconsistency of the findings

The first dimension of national culture to be investigated is uncertainty avoidance. The relation between uncertainty avoidance and payout policy was already put forward by Khambata and Liu (2005) and is further investigated by Bae, Chang and Kang (2012). This dimension of national culture has logically and empirically been related to payout policy. Therefore, it will be included in this research. When the uncertainty avoidance index is high, there is a low tolerance for uncertainty. In a country with a high uncertainty avoidance index, managers would try to keep more cash within the firm and pay less dividend to avoid potential financial problem. (Bae, Chang and Kang, 2012) This reasoning leads to the first hypothesis:

A high uncertainty avoidance index is negatively related to cash dividend payout.

The second dimension of national culture to be investigated will be individualism versus collectivism. Bae, Chang and Kang (2012) did not employ this dimension directly, but they used long term orientation to substitute this dimension and the power distance dimension. They found a negative relation between long term orientation and dividend payout. Thus, one can argue that high individualism and/or a high power distance index relate negatively to dividend payout. This can be supported further by the findings of Shao et al. (2009). They argue that conservatism in a country is positively related to dividend payout. The nature of conservative countries in this model can be related to a collectivistic country as defined by the framework of Hofstede (1980, 1991). A collectivistic country in this sense will have a relatively low individuality score. This suggests that countries low in individualism tend to pay more dividends and that countries with high individualism tend to pay less dividend. This can be illustrated with the "bird in hand" theory. As shareholders in collectivistic countries would prefer more cash dividend to hold more cash as a precaution for future needs and emergencies, because they are more concerned with family security. In addition, conservative countries put emphasis on their public image. According to signaling effect theory, dividend payments are seen by outsiders as a positive indicator of firm performance. Therefore, managers in a conservative country are expected to pay higher dividends to improve their public image. In conclusion, a conservative or highly collectivistic country tends to pay more dividends and a highly individualistic country is likely to pay less dividends. As the individualism vs. collectivism index in measured by the individualism score the second hypothesis is as follows:

A high individualism index is negatively related to cash dividend payout.

This research will limit its investigation to these two dimensions in particular. Uncertainty avoidance is chosen for its previous significance in relating culture to dividend payout. The individualism vs. collectivism dimension is chosen, because the previous studies investigated this dimension indirectly with conservatism from another cultural framework theory and through substituting this dimension with long term orientation. It is interesting to look at this dimension holistically. Additionally Aggarwal et al. (2016) posit that Hofstede's individualism-

collectivism dimension is often a strong predictor of an array of different outcomes, even after accounting for country-level factors.

3. METHODOLOGY & DATA

3.1 Regression Model

To test our hypotheses we will use the models:

$$Y_t = \beta_0 - \beta_1 UAI + \beta_2 Size_t - \beta_3 Lev_t + \beta_4 Excash_t + \beta_5 Tax + \varepsilon$$

$$Y_t = \beta_0 - \beta_1 IND + \beta_2 Size_t - \beta_3 Lev_t + \beta_4 Excash_t + \beta_5 Tax + \varepsilon$$

These models are constructed largely based on the previous work and models of Khambata and Liu (2005), Shao et al. (2009) and Bae, Chang and Kang (2012).

In this model Y stands for dividend paid in year t, UAI and IND are the cultural variables for uncertainty avoidance and individualism and will enter the model separately to better distinguish their effect on the dependent variable. Size, Leverage and Excess cash are considered as firm-specific control variables in year t and tax is considered as a country-specific control variable.

3.2 Dependent Variable

The dependent variable, cash dividend payout refers to the amount of cash that companies distribute to shareholders from their retained earnings. We measure this variable as a ratio of dividend paid to total assets. Additionally we measure it as a ratio of dividend paid to sales to check for robustness of our results.

3.3 Independent Variables for Culture

The variables for culture are measured as their country scores for Hofstede's dimensions of national culture. The individualism vs. collectivism dimension score and uncertainty avoidance dimension score are measure on a scale from 0 to 100. A high score on the individuality vs. collectivism dimension reflects a highly individualistic society and therefore a low score on this dimension reflects a highly collectivistic society. Similarly, a high score on uncertainty avoidance reflects a high uncertainty avoidant society that is less accepting of ambiguous situations. Whereas a low score on this dimension reflects a low uncertainty avoidant society where ambiguity is better received.

3.4 Independent Control Variables

Khambata and Liu (2005) suggest that the size of a firm affects their dividend policies, because they tend to have more stable cash flows and pose less information asymmetries. This can result in lower financing costs. As firms with high financing costs are more likely to conserve cash and restrain dividends, larger firms are less likely to restrain dividends for this reason. Therefore, the size of a firm is positively related to dividend payout. The size of a firm can be measured in different ways and Li and Dang (2018) argue that the measure used for firm size needs theoretical and empirical justification in their investigation of the impact of the use of different measures for firm size. As different measures for firm size represent different aspects of a firm, they have different applications in corporate finance. Li and Dang (2018) investigate the effect of measuring with different proxies of size across many fields of finance literature and among them the field of dividend payout. They find that using total assets, total sales and market capitalization as a measure for firm size has similar effects on its relationship to dividend payout. This suggests that these measures are all theoretically valid to use when measuring firm size in relation to dividend payout. In this paper the variable firm size will be measured as its total assets in euros in natural log form. This is also in accordance with the model constructed by Shao et al. (2009) and Bae, Chang and Kang (2012).

Following Khambata and Liu (2005), Shao et al. (2009) and Bae, Chang and Kang (2012) we use Leverage as a firm specific control variable. We measure leverage as the ratio of short term ebt and long term debt divided by total assets. A higher leverage ratio suggests less financial flexibility and thus more difficulty in steadily maintaining dividends. A negative relation is expected between leverage and dividend payout.

Excess cash as a final firm specific control variable can be measured as the total cash that a company has on hand minus its current liabilities. This measure will be derived by subtracting total current liabilities from cash and cash equivalents that a company is holding. Cash dividends are to be paid from excess cash if not from external financing. It is generally not desirable to resort to external financing to maintain dividends. If a firm has more excess cash to work with it is easier to pay and maintain dividends. Therefore a positive relation is expected between excess cash and dividend payout.

Finally we use tax as a country-specific control variable as Bae, Chang and Kang (2012) did in their model. We utilize the same variable collected from La Porta et al. (2000), representing the tax advantage or tax disadvantage of dividends in a country. It was measured as the after-tax value of 1 in dividends divided by the after-tax value of 1 in capital gains (La Porta et al., 2000; Bae, Chang and Kang, 2012). "The higher the value of dividends relative to the value of capital gains, the more the dividend payouts" (Bae, Chang and Kang, 2012, p. 296). Therefore, we predict a positive relation between tax and dividend payout.

3.5 Sample

The first sample consists of all active corporate companies in the euro area from 2008-2017. This sample is collected from the Orbis database on 04/06/2018. The data on cultural scores is collected from Hofstede's insights website: https://www.hofstede-insights.com/product/compare-countries/ .The cultural dimension scores were collected on 04/06/2018 as well. Furthermore we collect country scores for the value of 1

dividend after tax in capital gains from La porta et al. (2000).Firstly, we exclude companies whose financial data is not available for total assets, total sales, current liabilities, non-current liabilities, dividends and cash or equivalent. As there is no cultural data available for the country Cyprus, all firms from this country will be excluded also. We will exclude the countries for which there is no data on value of dividend after tax. This includes the countries of Greece, Estonia, Luxembourg and Malta. Finally we exclude extreme outliers, outliers that are further than three standard deviations from the mean, from the sample as multiple regression is very sensitive to outliers. When applying this search strategy and these filters we end up with a sample of 7644 firm observations from 10 different euro countries for the years 2008-2017.

4. RESULTS

4.1 Descriptive statistics

Table 1 gives a summary of the statistics of our sample with number of observations, means, medians, standard deviations, the minimum and the maximum. The number of observations of is 7644.as mentioned before. Firstly we will discuss the two variables we use for dividend payout or the dependent variables. We can see that in our sample, firms pay out approximately 1.6% of their total assets in dividends and

Table 1

	Div/TA	Div/sales	Size	Leverage	Excess cash	UAI	IND score	Tax
Mean	0.0163	0.0350	13.39	0.5680	-1109639.1	72.6	67.1	0.763
Median	0.0101	0.0117	13.36	0.5776	-92982	65	67	0.77
Std. Deviation	0.0224	0.0925	2.22	0.1795	3016197	13.70	8.60	0.152
Minimum	0	0	7.74	0.0273	-26221000	35	27	0.4
Maximum	0.1535	2.0712	19.14	1.1293	2081054	99	80	1.07
N. obs.	7644	7644	7644	7644	7644	7644	7644	7644

This tables displays descriptive statistics for all the variables used. Div/TA is calculated as cash dividend payout divided by total assets. Div/sales is calculated as cash dividend payout divided by total sales. Size is calculated by the natural logarithm of total assets. Leverage is calculated by total current liabilities + total noncurrent liabilities divided by total assets. Excess cash is calculated by subtracting total current liabilities from total cash and equivalents. UAI and IND score are collected from Hofstede's online country comparison tool. Tax is calculated as 1 in dividends divided by the after-tax value of 1 in capital gains and is collected from (La Porta et al., 2000).

approximately 3.5 % of their total sales. Both means are lower than their respective medians. This can be the result of a relatively high quantity of observations where firms did not pay out dividends. The standard deviation for dividend over total assets is quite a bit lower than the one for dividend over total sales with 2.2% and 9.2% respectively. The minimum of both measures is logically zero as the minimum reflects no dividend payout in both cases. The maximum of both variables is very high considering their respective means and standards deviations. Especially the maximum of dividend over total sales stands out, as it would mean that at least one firm payed over twice as much dividend as their total sales in a year. This is quite remarkable and should be kept in mind when we do further analysis. The variable of size measure by the natural logarithm of total assets has a mean of nearly 13.4. This reflects that we have, on average, rather large firms in our sample. Which makes sense as our sample consists of only corporate firms. The standard deviation for this variable is quite low with approximately 2.2 and from the minimum and maximum we can say that there are no extreme outliers in our sample for this variable. When we take a look at the leverage of the firms in our sample we see that the average is approximately 56.8% with a standard deviation of almost 18%. The minimum for leverage is about 3%. When we look at the maximum for leverage we find a value of over 1, which is odd because it indicates that at least one firm has more total debt than total assets. This might be due to our measure of leverage, which used liabilities instead of solely interest bearing debt. Both the mean and the median of the variable excess cash is a significantly negative value. This goes against our expectation that firms would at least hold on to enough cash to pay for current liabilities. It is possible that our proxy for excess cash does not reflect what we intended to measure and this should be kept in mind when we continue to analyze our results. Additionally the standard deviation for excess cash is also very high which gives even more concerns about this variable. This is further illustrated by the minimum and maximum of the variables, especially the minimum is significantly far from the mean. The cultural variables of uncertainty avoidance index and individuality score have a relatively high value in our sample with a mean of 72.6 and 67.1 respectively. This is also illustrated by their medians which are 65 and 67.respectively. Yet, there is a relatively high spread on the scores of the countries in our sample as can be seen by the standard deviations of 13.7 and 8.6. This is backed up by the minimum and maximum of the scores. For uncertainty avoidance the lowest score of 35 is found in Ireland and the highest score of 99 is found in Portugal. For the individuality score the lowest score of 27 is found in Portugal and the highest score of 80 is found in the Netherlands. Interestingly, Portugal scores both highest on uncertainty avoidance and lowest on individuality. The last variable, which reflects the relative tax advantage of a country regarding the value of dividends has a mean of 0.763. This means that on average the value of 1 in dividends after tax is 0.763 in capital gains in our sample. The median of the variable is very close to the mean with 0.77 and the standard deviation is about 0.15. The lowest value of 0.40 is found in the Netherlands and the highest value of 1.07 is found in Finland.

Table 2

Countries	Frequency	Valid Percent	Cumulative Percent
Austria	360	4.7	4.7
Belgium	452	5.9	10.6
Finland	495	6.5	17.1
France	1831	24	41.1
Germany	2737	35.8	76.9
Ireland	193	2.5	79.4
Italy	433	5.7	85
Netherlands	496	6.5	91.5
Portugal	120	1.6	93.1
Spain	527	6.9	100
Total	7644	100	

This table represents the absolute and relative amount of observations per country in our sample.

In **table 2**, we can see how our sample is divided across the countries in our sample. Germany is clearly the most represented country in our sample with nearly 36% of the firm-year observations. France is also well represented with 24%. On the other hand, Portugal and Ireland consist of only 1.6% and 2.5% of the sample respectively. However, there are still 120 firm-year observations for Portugal and 193 for Ireland. Therefore, this is no reason for immediate concern.

4.2 Correlations analysis

Table 3 represents the Pearson correlation statistics for the variables used in our model. We can see that our two proxies for dividend payout are statistically significant at the 1% level and are positively related to each other with a correlation of 0.358. A stronger correlation between the two proxies could have been expected, as they are supposed to measure the same topic. The medium strength of the relationship indicates that it indeed makes a difference how dividend payout is measured. However, the relation is statistically significant at the 1% level and positive. Which is to be expected between these variables. The cultural variable of uncertainty avoidance has a negative correlation of -0.062 with dividend over total assets. This is in accordance with our hypothesis that firms in countries with high uncertainty avoidance pay less dividends. On the other hand, we found a positive correlation of 0.134 between uncertainty avoidance and dividend over total sales. The opposite was expected for this

Table 3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Div/TA (1)	1	0.358*	-0.062*	0.009	0.086*	-0.206*	0.000	0.073*
		(0.00)	(0.00)	(0.437)	(0.00)	(0.00)	(0.97)	(0.00)
Div/Sales (2)		1	0.134*	0.041*	0.114*	-0.110*	0.017	-0.014
			(0.00)	(0.00)	(0.00)	(0.00)	(0.13)	(0.21)
UAI (3)			1	-0.183*	0.077*	0.071*	-0.089*	-0.236*
				(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
IND (4)				1	-0.056*	-0.061*	-0.012	-0.468*
					(0.00)	(0.00)	(0.28)	(0.00)
Size (5)					1	0.308*	-0.585*	-0.103*
						(0.00)	(0.00)	(0.00)
Leverage (6)						1	-0.238*	-0.036*
							(0.00)	(0.00)
Excess cash (7)							1	-0.082*
								(0.00)
Tax (8)								1

This table shows Pearson correlations between the variables with corresponding p-values in the parentheses.
* is used to indicate statistical significance at the 1% level. Definitions for these variables can be found in table 1 and section 3.

relationship. Since, both results are statistically significant at the 1% level it might indicate that our results are not robust on this measure. For the cultural variable of individuality score we find a very slight positive relation to dividend over total assets, but this result is statistically insignificant at the 5% level, with a p-value of 0.437. Therefore, this result is will not be further analyzed. The relation between individuality score and dividend over sales, however, show a statistically significant relation at the 1% level with a correlation of 0.041. This goes against our expectations, since we hypothesized that a higher individuality score would result in lower dividend payout. The firm-specific control variable of firm size measured as the natural logarithm of total assets is positively related to both our proxies for dividend payout with 0.086 and 0.114 for dividend over total assets and dividend over total sales respectively. Both these results are statistically significant at the 1% level. The relation between leverage and our proxies for dividend payout follow our expectations. As leverage is negatively related to the dividend payout proxies with -0.206 and -0.110 for dividend over total assets and dividend over total sales. Once again, these findings are statistically significant at the 1% level. For Excess cash we have two statistically insignificant findings for the relation to the dependent variable proxies at the 5% level with p-values of 0.97 and 0.13. This implies that the amount of excess cash does not influence dividend payout. This could also be due to the use of an incorrect measure for excess cash as a variable. In any case, there is no statistical evidence that suggests that our proxy for excess cash is related to dividend payout. In combination with our earlier concerns about variable that originated from analyzing the descriptive statistics for excess cash, we decide to exclude this variable from the model. Our country-specific control variable is shown to have a positive relation to dividend over total assets with a correlation of 0.073 and with a statistical significance at the 1% level. This is consistent with our expectations about this relationship. The relation between tax and dividend over sales is negative and statistically insignificant at the 5% level with a p-value of 0.21. The remaining correlations between the independent variable are generally statistically significant. However, no correlation is over the 0.7 level and causes no problem directly. Taking this into account, we check for multicollinearity between the independent variables to assure that there is no further problem in the model. All VIF values that were found were well below two, therefore we can rule out multicollinearity issues in our models.

4.3 Regression Analysis

In **table 4** we can see the results from our regression analysis for 6 models. The models were slightly adjusted as some independent variables were excluded in some of the models, because there was no statistically significant relationship between the concerning dependent and independent variables. In the first model we include all the independent control variables and the independent cultural variable uncertainty avoidance. This models show statistical significance at the 1% level with an F-value of 155.9. The overall fit of the first model as described by the R^2 is 0.075. The regression coefficient for uncertainty avoidance takes and expected relatively low negative value of -0.0007 with statistical significance at the 1% level. The coefficients for the independent control variables in model 1 follow our expectations in their direction with statistical significance at the 1% level. In the second model we exclude both cultural variables to investigate whether the explanatory value of the model changes when cultural variables are not taken into account. This further helps to distinguish the effect that the cultural effect has. The coefficients found in the second model are very similar to those of the first model. However, the constant in this model is not statistically significant and the total explanatory power of the model is slightly lower than the first model with an R^2 of 0.074. Illustrating that the addition of the cultural variable does slightly improve the explanatory value of the model. Although, it is only logical that an increase in predictors leads to an increase of the explanatory of the variable. In model 3 to model 6 we used the alternative measure for dividend payout, dividend over total sales. Additionally, the country-specific variable tax is left out in these models, because it did not show a statistically significant relationship with this dependent variable in the correlation analysis. Firstly, we want to mention that excluding the control variable tax affects the explanatory power of the models 3 to 6 quite severely as is illustrated by the lower R^2 values for these models. Model 3 consists of the cultural variable uncertainty avoidance and the firm specific-control variables. The model shows statistical significance at the 1% level with an F-value of 145.9. In this model the direction of the relationship between uncertainty avoidance and dividend payout changes to a positive relationship. This further argues that our results lack robustness, because the results are different when alternative measure for dividend payout are used. The results that we find for this model are going against our first hypothesis. From looking at models 3 to 6, we can say that the addition of the cultural variables does add some explanatory value to the models. When we compare

Table 4

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent variable used	Div/TA	Div/TA	Div/sales	Div/sales	Div/sales	Div/sales
Constant	0.007*	0.002	-0.068*	-0.04*	-0.124*	-0.009
	(0.00)	(0.36)	(0.00)	(0.00)	(0.00)	(0.16)
UAI	-0.0007*		0.001*		0.001*	
	(0.00)		(0.00)		(0.00)	
IND				0.0004*	0.001*	
				(0.00)	(0.00)	
Size	0.002*	0.002*	0.006*	0.007*	0.007*	0.007*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Leverage	-0.032*	-0.032*	-0.087*	-0.082*	-0.085*	-0.083*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tax	0.011*	0.012*				
	(0.00)	(0.00)				
N. Obs.	7644	7644	7644	7644	7644	7644
adjusted R^2	0.075	0.074	0.054	0.038	0.058	0.036
F-value	155.9*	203.5*	145.9*	100.7*	118.5*	144.3*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

This table displays the unstandardized coefficients with their respective p-values in parentheses, for dividends to total assets and dividends to total sales. * is again used to signal statistical significance at the 1% level. Definitions for the variables are available in table 1 and section 3. Finally, the adjusted R squared values are provided along with the F-values that describe the statistical significance of each model.

the R^2 values for the models 3 to 6 we can see that it is the highest for model 5 with 0.058 in which both cultural variables are included together with size and leverage. And the R^2 for model 6 is the lowest with a value of 0.036. As mentioned before, the more predictor variables in the model, the more explanatory power it is supposed to have. But it does illustrate that cultural variables do have the potential to help explain differences in dividend payout.

5. CONCLUSION

This paper adds to the existing literature that relates culture to dividend payout by conducting analysis on the relationship between these two concepts with a more recent dataset. Our findings differ from those of earlier articles which could be interesting to look into further in the future. From a practical point of view, this paper could assist managers to make the right decisions concerning payout policy by providing additional insight in the not yet thoroughly explored relationship between culture and payout policy.

Our first hypothesis states that a high score for uncertainty avoidance is negatively related to dividend payout. In the models where dividend over total assets was used as the dependent variable. The results are in agreement with this hypothesis. Therefore we can accepts our first hypothesis. However, this result is not robust to the use of another measure for dividend payout. When we applied dividend over total sales to measure dividend payout, the results were inversed. Which instigates some doubt on the validity of our outcome.

The second hypothesis states that a negative relationship between individuality score and dividend payout was expected. However, our results pointed the other way. Firstly we found no statistical significant relation between individuality and our primary variable to measure dividend payout, dividend over total assets. Secondly, individuality was negatively related to our alternative measure for dividend payout, dividend over total sales. Thus, we reject our second hypothesis.

The research question to be answered in this paper is "does culture affect dividend payout?". When we include cultural variables in our models, we see that the explanatory power of said models increase, may it be only slightly. Therefore, we argue that culture could assist in explaining dividend payout. This is consistent with the results from previous studies, such as Shao et al. (2009) and Bae, Chang and Kang (2012).

Our deviating results could be caused by several things. Firstly, it could be due to the limitations of this research. For example, our sample only consists of 10 different countries and specifically only countries where the euro is used as a currency. Whereas Shao et al. (2009) use a sample with 21 countries globally and Bae, Chang and Kang (2012) use a sample of 33 countries globally. Consequently, our results are less representative overall. Another reason for our divergent results could be that we failed to control for crucial effects, which could have been controlled for by using a different model with alternative or additional control variables. Examples of such variables are governance measured as investor protection, growth of a firm and market capitalization as were used in Bae, Chang and Kang (2012). Our variable for country related tax advantages was taken from La Porta et al. (2000) and could be outdated, especially since is applied on a different time period in this case. For the variable leverage we used total liabilities which also includes non-interest bearing debt, this results in relatively high scores for leverage. This is not a direct concern, but an alternative measure for leverage could be more suitable. In addition, we did not use alternative measures of culture as variables to test for robustness. Additionally, we ran the risk of oversimplifying culture by only using five dimensions to represent the complicated concept. Secondly, the different relationships that we found could be the result of the selection criteria of our sample. As we used different years for our observations, it could indeed mean that the influence of culture on dividend policy has changed. Alternatively, it could be that our focus on euro countries is the cause of our results. For instance, if the perceptions towards dividend payout are not as severely influenced by culture or differently influenced by culture in euro countries as in countries. Then this might explain the contrast in findings. Also, we only use only active firms to

construct our primary sample, therefore excluding firms that went bankrupt or are inactive otherwise from our sample. Resulting in a possible bias in our sample.

Further research is needed to ascertain why these results showed up and whether the observed changes do in fact reflect reality or if they lack validity. Therefore, an interesting path for future research would be to investigate the influence of culture on dividend payout over time. It would be interesting to know whether culture's impact on dividend policy changes over time. As discussed earlier, culture changes slowly over time, but its impact on financial decision making might change relatively fast over time. Alternatively, it could be interesting to investigate whether culture has a different impact on dividend policies between countries or world regions. Although, this might be difficult to investigate. One final path for future research could be to investigate the impact of culture on share repurchase activities of firms. Share repurchases are becoming a more integral part of firms' payout policies and it could be intriguing to find out if culture has an impact on this aspect of payout policy as it does offer some explanatory power for dividend payout.

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