Uncertainty avoidance and stock price informativeness of future earnings

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Highlights

- We examine the effect of uncertainty avoidance on the share price informativeness for future earnings.
- We conduct our analysis using an international sample of publicly listed firms.
- Uncertainty avoidance is negatively related to share price informativeness.
- Uncertainty avoidance affects the market's ability to anticipate future earnings.
- This relation is less pronounced within markets with higher market openness.

Abstract

We explore whether uncertainty avoidance, an important aspect of national culture, influences the level of informativeness of share prices about future earnings. Uncertainty avoidance relates to the extent to which the members of a society feel threatened by uncertain or unknown situations. We employ data from 20 countries, comprising of 26,882 firm-year observations reporting under the same accounting standards. Using panel data analysis with OLS regressions, we show that firms' current stock returns incorporate less future earnings information in countries with high uncertainty avoidance. Further, we report that this relation is less pronounced within countries with relatively high market openness, consistent with the premise that the effect of national culture is reduced when a country's market is more open to foreign investors. Our study contributes to the literature by showing that international investors' innate differences affect their ability to anticipate future earnings and impound this information into current prices. As such, the benefits of adopting a common set of accounting standards are uneven across countries not only because of the way the standards are applied but also due to investors' innate differences.

Keywords: National Culture; Uncertainty Avoidance; Stock Market Efficiency; Stock Price Informativeness; Market Openness.

JEL classifications: G14; M41; M14

1. Introduction

A strong relation between current stock returns and future firm earnings indicates an informationally efficient market. More informationally efficient prices facilitate more efficient resource allocation, because they reflect greater information and better capture the firm's underlying value (Durnev et al., 2003). Prior studies have shown that national culture influences several areas of business activities and decision making, including multinational corporation decentralization activities (Williams & van Triest, 2009), project evaluation (Harrison & McKinnon, 1999), organizational design, management planning and control systems (Harrison et al., 1994), compensation practices (Schuler & Rogovsky, 1998), dividend policy (Shao et al., 2010), marketing (Soares et al., 2007), asset managers' behavior (Beckmann et al., 2008), central banks' transparency (Makrychoriti & Pasiouras, 2021) and commercial banks' relationships with companies (Pasiouras et al., 2020) and risk taking (Kanagaretnam et al., 2014). However, only in more recent years has there been some interest in the significance of national culture on investor decisions. In line with this, Dou et al. (2016, p. 851) call for research that includes cultural dimensions '…in cross-country research to account for innate differences among international investors'. In this study, we respond to this call by examining whether uncertainty avoidance has an effect upon the stock price informativeness about future earnings as measured by the association between current returns and future earnings. This allows us to examine whether one aspect of culture is a fundamental factor that affects the process with which stock prices are formed.

Uncertainty avoidance is defined as "the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity" (Hofstede, 1984, p.83). Thus, uncertainty avoidance captures the extent to which individuals tolerate uncertainty and feel threatened by ambiguous situations. Given this, we hypothesize that investors in high uncertainty avoidance societies are more likely to be uncomfortable with the level of uncertainty associated with

firms' future performance. Thus, stock prices in countries with cultures with higher uncertainty avoidance would exhibit a lower anticipation of future earnings (i.e., the association of current returns and future earnings will be lower in such markets). Subsequently, we corroborate our findings of this hypothesis by examining the effect of market openness. The participation of foreign investors introduces a multitude of norms and behaviours of foreign cultures and societies which then weakens the influence of domestic culture (Cowen, 2002; Jones, 2009; Eun et al., 2015).

We use data from 2005 to 2018 and our sample comprises of 26,882 firm-year observations from 20 countries. Specifically, the analysis focuses on firms reporting under International Financial Reporting Standards (IFRS) on a mandatory basis. This ensures that accounting numbers are more comparable among firms and across countries.[1] We find that firms' current stock returns incorporate less future earnings information in countries with high uncertainty avoidance. In fact, this effect is also economically significant. Further, we find that the adverse effect of uncertainty avoidance remains robust to the inclusion of a number of firm and country controls which may affect the ability of stock returns to incorporate more future firm earnings information. This result confirms the main hypothesis. Additionally, we find that these results are driven by markets with relatively low market openness, where the market is mostly dominated by domestic investors. Finally, we find that our results also hold when we use aggregate country-level data, providing further support that our results capture a pervasive phenomenon (see also Kothari et al., 2006).

We contribute to the literature in the following ways. First, to the best of our knowledge, this is the first study establishing that national culture is indeed a determinant of share price

[1] Mandatory transition toIFRS has in effect caused a structural change by affecting the earnings-return relation (e.g. Choi, et al., 2013) resulting in increased comparability (Brochet et al., 2013; Neel, 2017; Yip & Young, 2012). Prior literature documents that comparability has a strong effect on the informativeness of stock prices (Choi et al., 2019).

informativeness about future earnings. Given that no cultural aspect has been considered thus far by this strand of the literature (e.g., Ettredge et al., 2005; Choi et al., 2011; Haw et al., 2012), this finding adds a new piece to the puzzle relating to the process of "stock price formation" (Haw et al., 2012 p. 391). Second, our study builds on and complements the studies by Chui et al. (2010) and Dou et al., (2016). The former explores the significance of one other element of national culture (individualism) in relation to the profitability of a stock market anomaly (the momentum effect).[2] Dou et al., (2016) show that investors embedded in cultures with higher uncertainty avoidance (individualism) exhibit a lower (higher) under-reaction to earnings information. Our study also advances the conjectures in Maher and Parikh (2011) who focus on India and the findings by Papanastasopoulos (2014) who focuses on countries in the European Union. Both studies point to uncertainty avoidance as a potential influential factor of investors' behaviour. We show that uncertainty avoidance also influences the ability of investors to anticipate future earnings and impound this information into current prices, while market openness moderates this effect.

The evidence provided in this study also sheds light on the concerns raised in the literature about the potentially uneven benefits arising from the application of IFRS in different countries around the world because of differing country characteristics (Ball, 2006; Nobes, 2006; Weetman, 2006; Zeff, 2007). This gives rise to policy implications. The mission statement of the International Accounting Standards Board (IASB) describes IFRS as standards "[which] contribute to economic efficiency … thus improving capital allocation".[3] More informationally efficient prices facilitate more efficient resource allocation because they reflect greater information and better capture the firm's underlying value (Durnev et al., 2003). Given that

[2] However, a number of factors may influence the profitability of a trading strategy such as the limits to arbitrage which are hard to control for (e.g., Stambaugh et al., 2012).
[3] https://www.ifrs.org/about-us/

our sample comprises firms that adopted IFRS on a mandatory basis, our results show that the benefits of adopting a common set of accounting standards are indeed uneven across countries. Specifically, countries with higher levels of uncertainty avoidance exhibit lower levels of information efficiency. While IFRS' adoption may improve capital allocation it is not the only necessary and sufficient condition for information efficiency.

The remainder of the paper is structured as follows. Section 2 briefly reviews related literature and outlines our hypotheses. Section 3 presents the research design. Section 4 discusses the empirical results, including a battery of sensitivity tests we have conducted. Finally, section 5 concludes this study.

2. Relevant literature and hypotheses development

2.1 Price informativeness about future earnings

The stock return of a firm over the course of one year is partly due to, first, the realization of the unexpected portion of the current year's earnings and, second, the changes in expectations about future earnings (Collins et al., 1994). The latter implies that current stock returns reflect, to an extent, investors' expectations about forthcoming firm earnings (Warfield & Wild, 1992; Durnev et al., 2003). As Tucker and Zarowin (2006) explain, a key advantage of considering the anticipation of future earnings as reflected in current returns is that the change in expected future earnings may be due to a shock that has no effect on current earnings. While such information will be impounded in current stock prices, it may not be captured by current earnings. This insight has provided a fruitful area of research with a significant body of literature focusing on investors' ability to anticipate future firm earnings. As noted earlier, if more information about fundamentals and a company's future prospects is reflected in current stock returns, prices exhibit higher informativeness and informational efficiency, which facilitates more efficient resource allocation (Durnev et al., 2003).

Prior studies exploring the relation between current stock returns and future earnings have typically explored firm characteristics that influence the magnitude of this positive relation, mostly within the US market. For example, it has been reported that a firm's size and its earnings volatility are related with price informativeness: large-sized firms, and firms that smooth their earnings, tend to be more informationally efficient (Tucker & Zarowin, 2006). Prior literature also shows that financial statements seem to matter more when companies exhibit higher comparability, better earnings quality and within countries with stronger investor protection, better enforcement of insider trading laws and better financial disclosure through media (e.g., Hope, 2003; Bushman et al., 2004; Choi et al., 2011; Haw et al., 2012; Choi et al., 2013). However, this strand of the literature on price informativeness about future earnings has yet to consider the significance of national culture, and in particular the dimension of uncertainty avoidance.

2.2 Hypotheses development: Uncertainty avoidance as a determinant of firms' price informativeness about future earnings

Culture is particularly important in shaping 'perceptions, preferences, and behaviors and, therefore, action outcomes by and perceived utilities of the financial decision maker(s)' (Aggarwal et al., 2016, p. 467). Thus, culture is expected to have an important impact on investors' decisions and interactions with others. Individuals' upbringing and later experiences are expected to be more homogeneous within a country, and these experiences may well differ significantly among countries. Consistent with this premise, a number of recent studies have reported that particular cultural characteristics explain cross country differences in stock returns. Chui et al. (2010) is one of the first studies in the field of finance showing that individualism is related with cross-country momentum stock returns. Eun et al. (2015) report that individualism influences the co-movement of cross-country stock returns. Dou et al. (2016)

find that investor individualism and uncertainty avoidance are related with cross-country earnings momentum. Cheon and Lee (2018) highlight the significance of individualism in the cross-country differences in stock returns. Gaganis et al. (2021) show that firms from countries with higher secrecy, a composite measure from Hoftstede national culture measures, exhibit high stock price synchronicity. Finally, using a sample of cross listed firms in the US, Abdallah et al. (2021) show that stock price synchronicity is reduced following the adoption of IFRS and this effect is more pronounced for firms from countries which higher secrecy.

The definition of uncertainty avoidance, as provided by Hofstede (1984), indicates that it captures the extent to which individuals tolerate uncertainty and feel threatened by ambiguous situations.[4] Individuals in societies with high uncertainty avoidance feel more anxious or threatened in uncertain or ambiguous situations, while on the other hand, people in low uncertainty avoidance cultures tend to be more comfortable with uncertainty and ambiguity. Thus, individuals exhibiting high uncertainty avoidance experience uneasiness and reluctance when facing situations which increase uncertainty and ambiguity, and consequently attempt to avoid unknown and unfamiliar situations.

Consistently, prior management literature shows that a country's level uncertainty avoidance may discourage firms from engaging in business activities associated with high uncertainty such as the method of entry into a market (Png et al., 2001), adoption of information technology (IT) infrastructure (Kogut & Singh, 1988), supply chain collaborations (Qu & Yang, 2015) and cross-border/cross-industry takeovers (Frijns et al., 2013). Similarly, Abdolmohammadi and Sarens (2011) show that uncertainty avoidance is correlated with a lower usage and compliance of auditing standards and conclude that "standards that introduce

[4] It could be argued that uncertainty avoidance is also related with risk aversion. However, risk relates to known probabilities. Further, Rieger et al. (2015) argue that although risk aversion depends on cultural characteristics such as uncertainty avoidance, 'equalizing… [uncertainty avoidance] with risk aversion is an oversimplification' (p. 639).

significant ambiguity/uncertainty in terms of interpretation and application may be subject to low usage" (p. 386).

In line with this, it has been argued that uncertainty avoidance could also influence investment decisions and deter individuals from investing in riskier assets. In fact, Beugelsdijk and Frijns (2010) and Anderson et al. (2011) show that investors from high uncertainty avoidance countries invest less in foreign assets which are considered riskier than domestic. Maher and Parikh (2011) use India as a country case study and document increased volatility prior to periods of high uncertainty, with a subsequent price correction as the uncertainty subsides. They interpret their findings by reflecting on India's specific cultural background, specifically pointing to uncertainty avoidance as defined by Hofstede. Papanastasopoulos (2014) employs firms from the European Union and shows that the accrual anomaly is stronger in countries with higher individualism and lower uncertainty avoidance. Building on these findings, Moreira et al. (2019) use a sample of firms from Latin America countries and show that the accrual anomaly is stronger in countries with a lower 'rule preference culture', which is defined as the sum of individualism and uncertainty avoidance. Moreover, prior literature documents that managers in countries with higher values of uncertainty avoidance would tend to hold more liquid assets such as cash (e.g., Chang & Noorbakhsh, 2009; Ramirez & Tadesse, 2009; Chen Y. et al., 2015). This is because individuals in such contexts "would tend to be less tolerant for uncertainty associated with future cash-flows generated by firms, and thus hold more cash to compensate for bearing this uncertainty" (Chen Y. et al., 2015, p. 4). The tolerance for uncertainty over the future in societies with higher uncertainty avoidance is consistent with an emphasis on "short-run reaction to short-run feedback rather than anticipation of long-run uncertainty. Such people solve pressing problems rather than develop long-run strategies" (Dou et al., 2016, p. 857).

The evidence in these studies suggests that investors in high uncertainty avoidance societies are more likely to be uncomfortable with the level of uncertainty associated with firms' future performance levels and the ambiguity related to the probability realisation of any forecasted future earnings. In fact, it is known that investors who receive ambiguous information are cautious and respond conservatively, by assuming the worst-case probability distribution (Epstein & Schneider, 2008; Williams, 2014) and hence discount ambiguous information (Van Dijk & Zeelenberg, 2003). Investors' incorporation of future earnings in stock prices in such environments would also be weaker because earnings management is known to be relatively high in countries with high uncertainty avoidance scores (Nabar & Boonlert-U-Thai, 2007). We thus conjecture that the combination of the financial reporting environment and investors' own response to uncertainty and ambiguity would then lead to current returns reflect less forward-looking earnings' information in cultures characterized by greater uncertainty avoidance. Effectively, future earnings will have less weight in current firm returns in such environments. Hence, we test the following hypothesis:

Hypothesis 1: The relation between current stock returns and firm future earnings is expected to be stronger (weaker) within countries characterised by lower (higher) uncertainty avoidance.

The underlying assumption of the first hypothesis is that investors' cultural attributes explain a weaker association between stock return and future earnings in countries with high uncertainty avoidance. However, arguably, the lower anticipation of future earnings in countries with high uncertainty avoidance could be driven by managers' cultural attributes inducing a lower quality of information. In order to corroborate our first hypothesis regarding the effect of culture on investors' anticipation of future earnings, we examine the effect of market openness as a moderator variable in this relationship.

As a result of economies' globalization, investors invest in international markets (e.g., Poole, 2004). The globalization of the economy allows for the transmission of local cultures to foreign countries and hence the presence of foreign investors (i.e., the degree of market openness) introduces cultural influences and norms of foreign societies. This results in the weakening/dilution of the effect of the local norms and domestic culture on overall investors' decisions in the long-run (Cowen, 2002; Jones, 2009). As Eun et al., (2015, p. 286) summarise this "the trading activities of foreign investors in domestic markets are likely to mitigate the influence of national culture on stock price behaviors".

Consistent with this idea, Stulz and Williamson (2003) show that market openness moderates the effect of religion on creditor rights. Eun et al. (2015) document that market openness moderates the effect of national culture, and individualism in particular, on the co-movement of cross-country stock returns. Additionally, El Ghoul and Zheng (2016) show that market openness weakens the relation between domestic national culture and credit provision.

This evidence suggests that the hypothesized significant negative effect of uncertainty avoidance on the price informativeness of future earnings is likely to be affected (i.e., moderated) by the level of a country's market openness. We expect that the adverse effect of uncertainty avoidance is more prominent when relatively more local investors participate in the domestic stock market. Instead, when more international investors participate in the market, the relation should become weaker, since a large number of investors with varying cultures transact. We, thus, test the following hypothesis.

Hypothesis 2: The influence of uncertainty avoidance on the relation between current stock returns and firm future earnings is expected to be stronger (weaker) within countries with low (high) market openness.

3. Research design

3.1 Methodology

In order to test our hypotheses, we follow the model originally developed by Collins et al. (1994) and later modified by Lundholm and Myers (2002) to measure the market's ability to anticipate future earnings. This model, which has extensively been used in prior literature (Gelb & Zarowin, 2002; Tucker & Zarowin, 2006; Hussainey & Walker, 2009; Haw et al., 2012; Chou, 2013; Dargenidou et al., 2021),[5] expresses current returns as a function of future, current and past earnings as follows:

$$R_{i,t} = a_0 + b_1 E_{i,t+1,+3} + b_2 E_{i,t} + b_3 E_{i,t-1} + b_4 R_{i,t+1,+3} + \varepsilon_{i,t} \quad (1)$$

where $R_{i,t}$ is the annual stock return of firm i in year t, measured from nine months before the year end to three months after the year end; $E_{i,t+1,+3}$ is the sum of future earnings of firm i for the three years following the current year, scaled by the market value of equity measured at the firm's year end[6]; and $E_{i,t}$ is the earnings of firm i and year t scaled by the market value of equity measured at the firm's year end. The model also includes returns $R_{i,t+1,+3}$ as a control variable, because using actual future earnings to explain current returns introduces measurement error generated by events in future periods not anticipated in the current period.

The appealing feature of the model is that the coefficient of $E_{i,t+1,+3}$, b_1, captures the market response to information about future earnings that is anticipated and not reflected in/captured by current and past earnings. This coefficient is predicted to be positive. The coefficient of $E_{i,t-1}$, b_3, captures the already anticipated portion of current earnings and is expected to be negative. The coefficient of $E_{i,t}$, b_2, represents the market response to the unexpected portion of current earnings and is predicted to be positive. Lastly, the coefficient of future returns, b_4, is expected

[5] An alternative method to measure the information content of stock markets is the stock price synchronicity (e.g., Nguyen and Truong, 2013; Kim et al., 2018). However, we refrain from using this measure given the concerns discussed in the literature with respect to measurement bias in synchronicity proxies (e.g., Gassen et al., 2020).
[6] We use three years of future earnings because Collins et al. (1994) and Lundholm and Myers (2002) show that considering more years adds little explanatory power.

to be negative, ensuring a 'better approximation to the changes in expectations of future earnings' (Collins et al., 1994, p. 299).

To test our first hypothesis, we extend Equation (1) by including our measure of uncertainty avoidance, *UA,* both as a main effect and as an interaction with future earnings, $E_{i,t+1,+3}$, as follows:

$$R_{i,t} = a_0 + b_1 E_{i,t+1,+3} + b_2 E_{i,t} + b_3 E_{i,t-1} + b_4 R_{i,t+1,+3} + b_5 E_{i,t+1,+3} * UA + b_6\, UA + Controls + Industry\ FE + Year\ FE + \varepsilon_{i,t} \quad (2)$$

where, uncertainty avoidance is measured using the relevant index from the Globe project (House et al., 2004). In this case, the coefficient of $E_{i,t+1,+3}$ captures the association between current returns and future earnings for firms from countries with low uncertainty avoidance. The coefficient b_5, which is the coefficient of interaction between future earnings and uncertainty avoidance, $E_{i,t+1,+3}*UA$, captures the incremental effect of *UA* upon the association between future earnings and current returns. In line with hypothesis H1, we expect the coefficient of $E_{i,t+1,+3}*UA$, b_5, to be negative and significant. This would indicate that the market's ability to anticipate future earnings is weaker for firms in countries with higher uncertainty avoidance reflecting the tolerance for uncertainty over the future.

In addition, we include a battery of firm-level control variables which may affect the incorporation of future earnings information in current prices, namely size (*Size*) as a proxy for a firm's information environment, measured as the logarithm of market value; earnings persistence (*Persistence*), which is an indicator variable that equals one if a company reports losses, and zero otherwise; earnings variability (*EarnVol)*, measured as the standard deviation of earnings, given that greater earnings volatility makes it more difficult to predict earnings; firm's book to market ratio (*BM*); and *Opacity* as a proxy of financial transparency, measured based on scaled accruals, following Bhattacharya et al. (2003) and Dhaliwal et al. (2014).

To avoid our proxy of uncertainty avoidance capturing the effect of other country-level factors which could also influence the association between future earnings and current returns, we include the following variables as controls: *Disclosure* is a measure disclosure quality through a count of non-missing Compustat line items reflecting the extent of details in firms' financial statements (Chen et al., 2015; Li et al., 2019) and may affect investors ability to anticipate future earnings; *Own* is a proxy of ownership concentration measured by the proportion of closely held shares (La Porta et al., 1999; Djankov et al., 2005) and could affect earnings expectations (Dargenidou et al., 2007); *NonCatholic* is a proxy for religious decomposition measured as a dummy variable that takes one if a firm is from a country where the major religion is not Catholicism, and zero otherwise and could affect investors' economic attitudes correlated with uncertainty avoidance (Huang, 2008; Guiso et al., 2003); *CivCom* is a dummy variable that takes the value of zero if the country is characterized by civil law and one if common law; *MarketDev* is the market capitalization of listed companies as a percentage of GDP; *InvProtection* is a measure of legal protection of minority shareholders against expropriation by corporate insiders which is an index of the strength of minority shareholder protection against self-dealing by the controlling shareholder (La Porta et al., 2008). *Enforcement* is an index capturing the degree of the quality of audit function and degree of accounting enforcement in each country, developed by Brown et al. (2014). Motivated by prior literature arguing that behavioural biases and in particular ambiguity aversion could correlate with trading volume and volatility (Chui et al., 2010; Illeditsch; 2011; Antoniou et al., 2015), we follow Chui et al. (2010) and we include two more proxies: *MarketTradingVolume,* a proxy of market trading volume measured as the annual market dollar trading volume of Datastream Global index of a country divided by this index's market capitalization and; *MarketVolatility,* a proxy for market volatility measured as the sum of squared annual stock market returns of all firms a country divided by the number of firms. Finally, for the regression analyses, we

transform all continuous control variables in percentile ranks ranging from zero to one (see also Lundholm & Myers, 2002; Tucker & Zarowin, 2006; Haw et al., 2012).

To test our second hypothesis (H2), we extend Equation (2) and introduce *Openness*, our proxy of market openness, both as a main effect and as an interaction with $E_{i,t+1,+3}$ and $E_{i,t+1,+3}$*UA, as follows:

$$R_{i,t} = a_0 + b_1E_{i,t+1,+3} + b_2E_{i,t} + b_3E_{i,t-1} + b_4R_{i,t+1,+3} + b_5E_{i,t+1,+3}*UA + b_6E_{i,t+1,+3}* Openness + b_7E_{i,t+1,+3}*UA* Openness + b_8UA + Openness + Controls + Industry\ FE + Year\ FE + \varepsilon_{i,t} \quad (3)$$

where *Openness* is the measure for market openness and reflects the dominance of domestic investors relative to foreign commonly referred to as Equity Home Bias. Home bias measures investors' preference to be "reluctant to reap the full benefits of international diversification and overinvest in their domestic assets rather than in international portfolios" (Bose et al., 2015, p. 65). Thus, we employ the inverse of this measure: the dominance of domestic investors relative to foreign investors.[7] all other variables are as previously defined. For the regression analysis, we transform Equity Home Bias into reversed percentile ranks ranging from zero to one so that a higher percentile rank of captures a higher international portfolio diversification and hence openness. In Equation (3), the coefficient b_5, which is the coefficient of interaction between future earnings and uncertainty avoidance, $E_{i,t+1,+3}$*UA, captures the market's ability to anticipate future earnings in countries with low market openness and high uncertainty avoidance. The coefficient b_7 is the coefficient of interaction between future earnings, uncertainty avoidance and market openness, $E_{i,t+1,+3}$* UA * *Openness.* This captures the incremental effect of market openness on the market's ability to anticipate

[7] See page 6 in Kwabi et al. (2020) for a detailed discussion of how Equity Home Bias is calculated, using equity portfolio holding data obtained from the Coordinated Portfolio Investment Survey (CPIS) of the International Monetary Fund (IMF).

future earnings for firms from countries with higher uncertainty avoidance. In line with H2, which predicts that the effect of uncertainty avoidance would be moderated as the market becomes more open, we expect coefficient b_7 to be positive and significant.[8]

Finally, all models include year and industry fixed effects in order to ensure that our relation is not driven by industry characteristics or by any particular sub-period during our sample period. We employ panel data analysis with OLS regressions and use robust standard errors clustered at the firm level across all estimations.[9] Appendix A summarizes the definitions of all the variables used.

3.2 Sample selection process

Table 1 presents the sample selection process. The starting point for the sample is all companies listed in countries that adopted IFRS mandatorily from 2005 onwards. This was the first year that companies in the European Union and elsewhere started reporting under IFRS on a mandatory basis. More countries followed this mandatory transition to IFRS thereafter.[10] We retrieve accounting and financial data from Datastream/Worldscope from the year of IFRS adoption until 2015. We then download data until 2018 to be able to calculate the sum of future earnings for the three years after the current year. Our sample includes all companies in the research lists of active and dead companies constructed by Datastream for each country in our sample.

[8] We have no prediction for the coefficient b_6, which is the coefficient of interaction between future earnings and market openness, $E_{i,t+1,+3}$* *Openness*.

[9] Our conclusions remain unchanged when including firm fixed effects or clustering standard errors at firm and year level. Similarly, our inferences remain unchanged when using random effect or fixed effects models. The results are available upon request.

[10] As in Mazzi et al. (2019) and Dionysiou et al. (2021), we assess whether a certain country has adopted IFRS mandatorily, we rely on the guide published by the IFRS Foundation on the use of IFRS by jurisdiction (http://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/)

From these lists, we eliminate instruments which are not classified as equity (i.e. DS item Type to be equal to 'EQ'). Further, we retain primary listings in the sample to avoid double counting firms that are cross-listed in more than one market. Subsequently, we exclude the first firm-year observation reported under IFRS to avoid confounding transitional effects. Following Daske et al. (2013) and Mazzi et al. (2019), we rely on Worldscope item 'accounting standards followed' (WC07536) to establish companies' financial reporting standards. Based on this item, we select the firm-year observations also used by Daske et al. (2013) and Mazzi et al. (2019) and eliminate those firm-year observations if this item is missing or returns a non-IFRS related code. This exclusion criterion ensures that firms' earnings are comparable across firms in our sample (Soderstrom & Sun, 2007). Subsequently, we exclude firms with missing industry classification and those belonging in the financials industry given that their accounting information is different from other firms and they are also subject to industry specific regulations which may affect investors' perceptions. Further, we exclude firm-year observations which changed their financial year end by eliminating those with accounting periods of more than 380 or less than 350 days (Dargenidou et al., 2018; Mazzi et al., 2019) compared to the current period, or any one of the subsequent three years following the current year period. This ensures that accounting earnings are reported for periods of similar length. In addition, we eliminate firm-year observations with missing firm-level data, country-level data and data with respect to the level of market openness. Finally, we winsorize all firm-level data at the 2% and 98% levels and following Haw et al. (2012), we eliminate firm-year observations when the absolute value of current or lagged earnings are above one and the absolute value of the sum of future earnings is above three. This ensures the omission of extreme values that may affect the findings. Our final sample comprises 26,882 firm-year observations corresponding to 4,879 firms across 20 countries.

TABLE 1 ABOUT HERE

4. Empirical results

4.1 Descriptive statistics

Table 2 shows descriptive statistics for earnings, stock returns and firm-specific control variables used in our models. In line with prior research (e.g., Haw et al., 2012; Dargenidou et al., 2021), we observe that earnings ($E_{t+1,+3}$, E_t and E_{t-1}) are left-skewed, given that their mean values are below median, in line with prior literature. Additionally, current and future returns (R_t, $R_{t+1,+3}$) are right-skewed, with mean values above the median, again consistent with prior literature. Further, approximately 26% of the firm-year observations report a loss, as indicated by the mean value of *Persistence*. The average firm-year observation in our sample has a book to market value of equity (*BM*) of 0.860.

TABLE 2 ABOUT HERE

Table 3 presents the country-level descriptive statistics of the variables used in our analysis, along with the year of IFRS adoption and the number of observations for each country in our sample.

We find evidence that there is plenty of variation amongst our countries with respect to uncertainty avoidance (*UA*). The country with the lowest *UA* is Sweden, with an uncertainty avoidance score of 29, followed by Ireland and United Kingdom, where *UA* is 35. On the other side of the spectrum, the country with the highest value is Greece where *UA* is 112, followed by Portugal with *UA* score of 104. Further, we find that *Own*, our measure of ownership concentration, ranges from 57% to 66% for countries with higher uncertainty avoidance whilst for those with higher *UA* levels *Own* ranges from 19% to 35%. Thus, countries with higher ownership concentration tend to also have higher levels of uncertainty avoidance. Additionally, we find that values of *Enforcement* range from 11 to 45 for countries with higher uncertainty avoidance and from 34 to 54 for countries with lower levels of *UA*. This indicates that countries

with higher *UA* also exhibit weaker enforcement of accounting standards and lower quality of audit function.

Moreover, we observe no clear patterns with respect to *Openness* which ranges from 2.002 to 8.508 in countries with low uncertainty avoidance and 2.910 to 6.751 in countries with high uncertainty avoidance. Similarly, we do not observe clear patterns with respect to market trading volume, *MarketTradingVolume*, or market volatility, *MarketVolatility*, given the overlap of the values between countries with high and low uncertainty avoidance.

TABLE 3 ABOUT HERE

In order to further explore the patterns identified in Table 3, we split the sample across firms from countries with low and high uncertainty avoidance defining countries with low (high) uncertainty avoidance as those which exhibit a *UA* score below (above) the sample median. We present the descriptive statistics across the two subsamples in Table 4 (Panel A).

We find that companies operating in countries with high uncertainty avoidance earn lower returns than those in countries with lower levels of uncertainty avoidance (mean R_t: 0.108 vs 0.126, p-value of differences<0.05; mean $R_{t+1,+3}$ R_t: 0.358 vs 0.381, p-values of difference<0.01). Further, we find that companies operating in countries with high uncertainty avoidance relative to those with low uncertainty avoidance exhibit higher earnings volatility avoidance (mean *EarnVol*: 0.289 vs 0.239, p-value of differences<0.01), higher book to market ratios (mean *BM*: 1.031 vs 0.770; p-value of difference<0.01) and tend to be larger (mean *Size*: 12.925 vs 12.267; p-value of difference<0.01). Moreover, in line with the findings by Nabar and Boonlert-U-Thai (2007), we observe that the opacity of company earnings is significantly higher in countries with higher uncertainty avoidance as opposed to countries with uncertainty avoidance (mean *Opacity*: -0.028 vs -0.039; p-value of difference<0.01).[11] The results also

[11] By construction, a more positive (negative) value of opacity indicates greater (lower) earnings opacity.

suggest that trading volume is larger for countries with higher uncertainty avoidance than countries with lower uncertainty avoidance (mean *MarketTradingVolume*: 398.746 vs 90.859; p-value of difference<0.01) in line with prior literature indicating that behavioural biases generate excess trading volume (e.g. Chui et al., 2010). Additionally, market development, investor protection enforcement, are significantly lower in countries with higher uncertainty avoidance (mean *MarketDev* 0.048 vs 0.077; mean *InvProtection* 0.427 vs 0.558; mean *Enforcement*: 30.083 vs 45.364; all p-values of differences<0.01). These results show that uncertainty avoidance tends to be more prevalent in countries with weaker investor protection, weak enforcement and poor earnings quality. In line with the underlying premise in our hypothesis, these results indicate a financial reporting environment that would impair investors' ability to better anticipate future earnings in countries with high uncertainty avoidance.

TABLE 4 ABOUT HERE

In Table 4 (Panel A), we find that market openness is lower for firms in countries with high uncertainty avoidance (mean *Openness*: 4.849 vs 3.207; p-value of difference<0.01).[12] Considering this and our second hypothesis, Table 4 (Panel B) reports the descriptive of the variables used in our analysis across firms from countries with high and low market openness. We define countries with low (high) market openness as those which exhibit an *Openness* score below (above) the sample median across all countries in our sample at any given year.

We observe that the level of uncertainty avoidance is significantly lower for countries with greater market openness (mean *UA*: 57.472 vs 75.919, p-value of difference<0.01). Consistently, we find that countries with greater market openness exhibit lower levels of ownership concentration (mean *Own*: 45.126 vs 59.399; p-values of difference<0.01), higher

[12] Openness is measured using Equity Home Bias and therefore a larger (smaller) value is indicative of greater (lower) proportion of home investors and thus lower (greater) market openness.

market development (mean *MarketDev*: 0.075 vs 0.049; p-values of difference<0.01), higher investor protection (mean *InvProtection*: 0.544 vs 0.443; p-values of difference<0.01), and stronger enforcement infrastructures (mean *Enforcement*: 44.226 vs 30.996; p-values of difference<0.01). Further, we observe that firms from countries with greater market openness exhibit lower earnings opacity (mean *Opacity*: 0.038 vs -0.030; p-value of difference<0.01). Taken together, such evidence indicates that investment in these firms may be less risky, which is consistent with these firms generating lower returns (mean R_t: 0.107 vs 0.147; p-value of difference<0.01).[13]

4.2 The relation between uncertainty avoidance and price informativeness

Table 5 shows the results of the empirical implementation of Equation (1) and Equation (2) which tests the effect of uncertainty avoidance on the share price anticipation of future earnings. The results presented in the first column yield correlations in line with the findings in prior literature (e.g., Lundholm & Myers, 2002; Ettredge et al., 2005; Haw et al., 2012; Dargenidou et al., 2021). Specifically, the coefficient of future earnings, $E_{i,t+1,+3}$, is positive and significant reflecting the favourable market's response to information about future earnings that is anticipated and not reflected in/captured by current and past earnings (coefficient: 0.169; p-values<0.01). The coefficient of $E_{i,t}$ is positive and significant capturing the positive market response to the unexpected portion of current earnings (coefficient: 0.598; p-values<0.01). Further the coefficient of $E_{i,t-1}$ captures the already anticipated portion of current earnings and is negative and significant is as expected (coefficient: -0.417; p-values<0.01). Finally, the

[13] Appendix B reports a correlations matrix between the variables employed in our analysis. We do not note extreme correlations between the majority of the variables. The only exceptions are the high correlations (perhaps not so surprisingly) between CivCom and InvProtection (-0.954***) and between Openness and Enforcement (-0.769***). To alleviate any concerns that the results presented below may be affected by these correlations, we have repeated our analysis by excluding CivCom and Enforcement. Our findings remain the same after these exclusions. Perhaps this is not surprising given that both variables are time-invariant and our conclusions hold when using fixed effects models or firm fixed effects (see footnote 9).

coefficient of $R_{i,t+1,+3}$ is negative and significant as expected showing that realized future earnings contain a measurement error that future returns remove (coefficient: -0.033; p-values<0.01).

The results presented in column (2) confirm our hypothesis H1. Specifically, as expected, we find that the coefficient of the interaction between uncertainty avoidance and future earnings, $UA * E_{t+1,+3,}$ is negative and significant (coefficient: -0.069; p-values<0.01), while the coefficient of future earnings, $E_{t+1,+3}$, is positive and significant (coefficient: 0.203; p-values<0.01). These results indicate that the market's anticipation of future earnings is weaker for firms in countries with higher uncertainty avoidance and, thus, such firms experience relatively lower stock price informativeness about future earnings.[14]

TABLE 5 ABOUT HERE

The remaining columns in Table 5 present the effect of uncertainty avoidance on the share price anticipation of future earnings when we include firm and country controls. Column 3 presents the results when we add only firm controls, and Column four presents the results after controlling for both firm and country characteristics. In line with the results presented in Column 2, the coefficient of future earnings is positive and significant (0.260, p-value<0.01; 0.301; p-value<0.01,), as expected. Importantly, we find that the coefficient of interaction between uncertainty and future earnings is negative and significant (-0.081, p-value<0.01; -0.103, p-value<0.01, in the third and fourth columns respectively). To demonstrate the economic significance of this finding, a one standard deviation increase in this interaction variable induces a 2.4% decrease in current returns (based on the coefficient in Column 3; this becomes 3% if we used the coefficient in Column 4).[15]

[14] We have also examined the potential of non-linear relationship between returns and our focal variable of interest i.e. the interaction between future earnings and uncertainty avoidance by introducing its square term in Model (2) of Table 5. Our results indicate that non-linearity is not present.

[15] Drawing upon the descriptive statistics presented in Table 2, the decrease of 2.4% is calculated as -0.081*0. 296 = -0.024. The decrease of 3% is calculated as -0.103*0.296= -0.030.

Regarding the remaining variables in the third and fourth columns respectively, these present coefficients that are well in line with previously literature (e.g. Lundholm & Myers, 2002; Ettredge et al., 2005; Dargenidou et al., 2021). More specifically, the coefficients of current earnings remain significantly positive at the 1% level, while the coefficients of lagged earnings also remain significantly negative at 1% across all estimations. Lastly, the coefficients of future returns remain significantly negative at the 1% level, showing that realized future earnings contain a measurement error that future returns remove.

Further, in line with Ettredge et al. (2005), we find that the relation between current returns and future earnings to be stronger for larger firms which exhibit richer information environments (coefficients: 0.088 and 0.075; p-values<0.01). Further, we find that the association between current returns and future earnings is weaker for firms that report losses (coefficients: -0.089 and -0.091; p-values<0.01). This is in line with prior literature given that predicting future losses is more difficult compared to predicting future profits (e.g. Ettredge et al., 2005; Lundholm & Myers. 2002). Additionally, firms with higher book to market exhibit a weaker association between current returns and future earnings (coefficients: -0.041 and -0.066; p-values<0.10 and p-values<0.01, respectively). Taken together, these results indicate that the market's anticipation of future earnings is weaker for firms from countries with high uncertainty avoidance and, thus, such firms experience relatively low stock price informativeness about future earnings, even after controlling for firm and country characteristics that may affect the anticipation of future earnings.

TABLE 6 ABOUT HERE

Table 6 reports the results when we also control for market openness. The first column shows the results when we include market openness as a control variable. The results show that the coefficient of interaction between future earnings and uncertainty avoidance, $UA * E_{t+1,+3}$, remains negative and significant (coefficient: -0.103; p-value<0.01). Further, our results show

that the coefficient of interaction between future earnings and market openness, *Openness* * $E_{t+1,+3}$, is insignificant (coefficient: -0.058; p-value>0.10), indicating that market openness does not improve the market's ability to anticipate future earnings.

Column 2 of Table 6 reports the results of estimation of Equation (3), which examines whether market openness weakens the effect of uncertainty avoidance on the share price anticipation of future earnings. Our results show that the coefficient of the interaction between uncertainty avoidance, future earnings and market openness, *Openness* * $E_{t+1,+3}$*UA, is positive and significant (coefficient: 0.255, p-value<0.05). Further, the coefficient of interaction between uncertainty avoidance and future earnings, UA * $E_{t+1,+3}$, is negative and significant (coefficient: -0.206, p-value<0.01), while the coefficient of future earnings, $E_{t+1,+3}$, is positive and significant (coefficient: 0.379, p-value<0.01). Taken together, these findings are in line with our second hypothesis and indicate that the negative effect of uncertainty avoidance is more pronounced within markets with lower participation from foreign investors, and less pronounced within highly open markets. Thus, our results are consistent with the view that the effect of national culture is reduced when a country's market is more open. Importantly, it corroborates our first hypothesis in that it is indeed investors' cultural attributes explaining the weaker relation between current returns and future earnings in countries with stronger uncertainty avoidance as opposed to managers' cultural attributes inducing a lower quality of information environment which then results in weaker relation between current returns and future earnings.

Consistent with the descriptive statistics presented in Table 4, the parameter coefficient of the interaction variable between market openness and uncertainty is significantly negative (coefficient: -0.251, p-value<0.01). This indicates that countries with lower uncertainty avoidance exhibit a higher presence of foreign investors.

4.3 Robustness tests

We undertake a number of robustness tests to examine the sensitivity of our findings. We present the corresponding results in Tables 7, 8 and 9. First, our tests focus on one aspect of culture and, arguably, may be driven by ignoring the effects of other cultural aspects which may drive the relation between current returns and future earnings. Thus, we expand the empirical model by also considering additional cultural variables, namely individualism and power distance and present the effect of uncertainty avoidance on the share price anticipation of future earnings when controlling for additional cultural variables in Table 7. Our conclusions remain unchanged: the parameter coefficient of the interaction variable between uncertainty avoidance and future earnings remains significantly negative (coefficients: -0.133 and -0.294; p-values<0.01), while the effect of market openness upon the relation between future earnings and returns remain positive and significant (coefficients: 0.377; p-value<0.01). Thus, our results are unlikely to be driven by other omitted cultural factors.

TABLE 7 ABOUT HERE

Columns 1 and 2 of Table 8, repeats our estimation when excluding countries with fewer than 150 observations, and re-estimate the results to test the counterpart scenario of countries with very few observations that may drive our main results. Our conclusions remain unchanged under this exclusion: the parameter coefficient of the interaction variable between uncertainty avoidance and future earnings remains significantly negative (coefficients: -0.098 and -0.377; p-values<0.01), while the effect of market openness upon the relation between future earnings and returns remain positive and significant (coefficients: 0.246; p-value<0.05). Further, in our main tests, we measure uncertainty avoidance by employing the relevant index from Globe's cultural dimensions. To examine the sensitivity of our results, we employ Hoftsede's uncertainty avoidance cultural dimension despite being subject to criticism (see McSweeney, 2002; Baskerville, 2003; Mazzi et al., 2018 for discussion). Columns 3 and 4 report the

corresponding results. We find that our conclusions hold when using Hofstede (1980) uncertainty avoidance index. Specifically, the coefficient of interaction between uncertainty avoidance and future earnings remains significantly negative (coefficients: -0.104 and -0.202; p-values<0.01), while the effect of market openness upon the relation between future earnings and returns remain positive and significant (coefficients: 0.235; p-value<0.01). Additionally, we undertake robustness tests regarding the market openness proxy used earlier. In line with El Ghoul and Zheng (2016) we use exports of goods and services to GDP, as an alternative proxy for market openness and find similar results. Specifically, the coefficient of interaction between future earnings, uncertainty avoidance and market openness remain positive and significant in column 5 (coefficients: 0.240; p-value<0.10).

TABLE 8 ABOUT HERE

Table 9 presents the effect of uncertainty avoidance and the moderating role of market openness at the aggregate country level. The dependent variable is the future earnings response coefficient estimated using Equation (1) for each country-year portfolio requiring a minimum of 20 observations. The independent variables include all country-level variables used in our earlier analysis. Column 1 shows that coefficient of uncertainty avoidance is albeit insignificant negative (coefficient: -0.017; p-value>0.10). However, we find that the adverse effect of uncertainty avoidance becomes significant when we control for market openness. Specifically, Column 2 shows that the coefficient of the interaction between uncertainty avoidance and market openness, *UA *UA,* is positive and significant (coefficient: 0.486; p-value<0.05), while the coefficient of uncertainty avoidance is negative and significant (coefficient: -0.229; p-value<0.05). Further, our conclusions remain unchanged when we repeat our analysis by excluding the UK. These results indicate that the market's anticipation of future earnings is weaker in countries with high uncertainty avoidance, and that this relationship is weaker in

countries with higher market openness. Overall, these results are consistent with the analysis presented earlier using firm-level data as opposed to aggregate country-level data.

TABLE 9 ABOUT HERE

5. Conclusion

In this study, we explore the effect of a distinct feature of national culture and uncertainty avoidance in particular upon the market ability to anticipate future earnings as reflected in current returns. We find that uncertainty avoidance does indeed affect the stock price informativeness about future earnings future earnings. Specifically, we report that current stock returns are more strongly related with future earnings in countries with low uncertainty avoidance and weaker for countries with higher levels of uncertainty avoidance. Markets with investors embedded in cultures with lower uncertainty avoidance are thus relatively more informationally efficient. We find that our relation is less pronounced in more open markets which are associated with relatively high levels of foreign stock market participation, offering further evidence that the effect of culture is reduced when a market is more open.

Our results are of interest to researchers working in the fields of finance, accounting and cultural studies. If more information about fundamentals and a company's future prospects is reflected in current stock returns, prices exhibit higher informativeness and informational efficiency, which facilitates more efficient resource allocation (Durnev et al., 2003). The informational efficiency of stock markets is a major research area. In this study, we show evidence that culture influences investors' anticipation of future earnings how this is reflected in returns. Most studies in finance tend to report that culture is related with the magnitude of abnormal stock returns of investment strategies. Our study instead explores the link between one distinct feature of culture and the informational efficiency about future earnings of stock prices. We show that national culture is a determinant of share price informativeness about

future earnings which has not been considered thus far by prior literature (e.g., Ettredge et al., 2005; Choi et al., 2011; Haw et al., 2012; Choi et al., 2013). Future research could expand our knowledge on the effect of investors' innate characteristics on their investment behaviour by applying different research methods such as a quantile-on-quantile based approach as in Atsalakis et al. (2020).

Appendix A: Variable definitions

	Definition	Source
Dependent variable		
R_t^1	One-year compounded firm stock returns, measured from three months after the end of each firm's financial year end onwards.	Return index (RI): Datastream
Main independent variables		
UA	Percentile rank of uncertainty avoidance.	Uncertainty avoidance index reported in House et al. (2004)
E_t^1	The net income scaled by firm market value.	Income before extraordinary items: WC01551 Market Capitalization: WC08001
$E_{i,t+1,+3}$	The sum of future earnings of firm *i* for the 3 years following the current year, scaled by the market value of equity measured at the firm's year end.	Income before extraordinary items: WC01551 Market Capitalization: WC08001
$R_{i,t+1,+3}$	The compounded firm stock return measured for the 3 years following the current year.	Return index (RI): Datastream
Control variables		
Size	Percentile rank of the natural logarithm of market value of equity.	Market Capitalization: WC08001
Persistence	A dummy variable that takes 1 if a firm report losses and 0 otherwise.	Income before extraordinary items: WC01551
EarnVol[1]	Percentile rank of the standard deviation of net income scaled by firm market value.	Income before extraordinary items: WC01551 Market Capitalization: WC08001
BM[1]	Percentile rank of the book to market ratio.	Common equity: WC03501 Market capitalisation WC08001
Opacity[1]	Percentile rank of firm-level earnings opacity. Following Bhattacharya Daouk and Welker (2003) and Dhaliwal et al. (2014), we measure earnings opacity as follows: (ΔCA-ΔCL-ΔCASH+ΔSTD-DEP+ΔTP)/lag(TA), where ΔCAis the change in total current assets; ΔCLis the change in total current liabilities; ΔCASH is the change in cash; ΔSTD is the change in the current portion of long-term debt included in total current liabilities; DEP is the depreciation and amortization expense; ΔTPis the change in income taxes payable; and lag(TA) is the total assets at the end of the previous year.	Current assets: WC02201 Current liabilities: WC03101 Cash and short term investments: WC02001 Short term debt: WC03051 Depreciation and amortisation: WC01151 Tax payable: WC03063 Total assets: WC02999
Disclosure	Percentile rank of the yearly median value of disclosure quality measured for each country separately. We measure disclosure quality following Chen S. et al. (2015) as adapted for international firms by Li et al. (2019) by counting non-missing Compustat line item.	Constructed using Compustat Global
Own	Percentile rank of the yearly median value of closely held shares measured for each country separately.	Closely held shares: WC08021
MarketTradingVolume	Percentile rank of market trading volume. Following Chui et al. (2010), we measure market trading volume as the annual market dollar trading volume of the Datastream Global index of the country divided by this index's market capitalisation.	Trading volume of the Datastream Global index of the country: VO Market capitalisation of the Datastream Global index of the country: MV
MarketVolatility	Percentile rank of market trading volatility. Following Chui et al. (2010), we measure market trading volatility for each country and year as the sum of squared stock returns of all firms in the country divided by the number of firms list in that country.	Return index (RI): Datastream
NonCatholic	A dummy variable that takes the value of 1 if the major religion is Catholicism and zero otherwise.	Central Intelligence Agency website

CivCom	A dummy variable that takes the value of 0 if civil law and 1 if common law.	La Porta et al. (1998)
MarketDev	Percentile rank of the ratio of market capitalisation of Datastream Global index of a country to GDP.	Market capitalisation of Datastream Global index of a country: MV GDP: World Bank
InvProtection	Percentile rank of a measure of legal protection of minority shareholders against expropriation by corporate insiders.	Anti self-dealing index: La Porta et al. (2008)
Enforcement	Percentile rank of the degree of the quality of audit function and degree of accounting enforcement in each country.	Brown et al. (2014)
Openness	Reversed percentile rank of home bias. Following Kwabi et al. (2020), we measure home bias as the degree to which domestic investors hold a significantly higher percentage of domestic securities in their portfolios relative to the theoretical prescription of the International Capital Asset Pricing Model (ICAPM) benchmark.	Coordinated Portfolio Investment Survey (CPIS) of the International Monetary Fund (IMF)

[1] Variables winsorized at the 2% and 98% levels.

Appendix B: Correlation matrix

	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*
$E_{t+1,+3}$ *(1)*	1									
E_t *(2)*	0.466***	1								
E_{t-1} *(3)*	0.351***	0.474***	1							
R_t *(4)4*	0.176***	0.174***	-0.0313***	1						
$R_{i,t+1,+3}$ *(5)*	0.424***	0.116***	0.120***	-0.0341***	1					
Persistence (6)	-0.407***	-0.719***	-0.403***	-0.153***	-0.111***	1				
EarnVol (7)	-0.354***	-0.193***	-0.162***	-0.0647***	-0.182***	0.208***	1			
BM (8)	-0.103***	-0.0990***	0.0189***	-0.191***	0.137***	0.121***	0.0996***	1		
Size (9)	0.221***	0.254***	0.238***	0.107***	-0.000332	-0.321***	-0.193***	-0.297***	1	
Opacity (10)	0.0327***	0.171***	0.0747***	-0.0284***	-0.0324***	-0.142***	0.00979	0.0119*	0.0149**	1
UA (11)	-0.0179***	-0.00232	0.00527	-0.0280***	-0.0516***	-0.0160***	0.0384***	0.170***	-0.0851***	0.0232***
Disclosure (12)	-0.0283***	-0.0205***	-0.0252***	-0.0206***	-0.0487***	0.0105*	0.0259***	-0.0165***	-0.0731***	0.0119*
Own (13)	0.0526***	0.0266***	0.0183***	0.0354***	0.0320***	-0.0217***	-0.00874	0.138***	-0.0310***	0.0308***
MarketTradingVolume (14)	0.0198***	-0.00286	0.000369	0.0457***	0.00402	0.00589	-0.0143**	0.0170***	0.0111*	0.00853
MarketVolatility (15)	0.0197***	0.0193***	-0.00283	0.0944***	0.0128**	0.00266	-0.00282	-0.00496	0.0831***	0.00876
NonCatholic (16)	-0.0577***	-0.0496***	-0.0401***	0.0209***	0.00184	0.0930***	0.0480***	0.0243***	-0.139***	0.0264***
CivCom (17)	0.0152**	0.00626	0.0121**	-0.0257***	-0.0106*	-0.0461***	-0.0267***	0.0382***	0.122***	-0.00707
MarketDev (18)	-0.0210***	-0.00319	-0.0329***	0.0862***	-0.0943***	0.00706	0.0181***	-0.175***	0.00304	-0.0110*
InvProtection (19)	-0.0173***	-0.0149**	-0.0222***	0.0197***	0.0135**	0.0536***	0.00198	-0.0590***	-0.146***	0.00187
Enforcement (20)	-0.0285***	-0.0282***	-0.0440***	-0.0169***	-0.0314***	0.0287***	-0.0175***	-0.106***	-0.196***	-0.0519***
Openness (21)	0.0189***	0.00131	0.00916	0.0205***	0.0347***	0.00683	0.0159***	0.167***	0.0915***	0.0383***

continued

	(11)	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*	*(20)*	*(21)*
UA (11)	1										
Disclosure (12)	0.0399***	1									
Own (13)	0.712***	0.0961***	1								
MarketTradingVolume (14)	0.0474***	0.0595***	0.112***	1							
MarketVolatility (15)	-0.0638***	-0.119***	0.136***	0.0349***	1						
NonCatholic (16)	-0.382***	0.0708***	-0.358***	0.0537***	-0.0312***	1					
CivCom (17)	0.545***	-0.0443***	0.334***	0.0311***	-0.0129**	-0.619***	1				
MarketDev (18)	-0.697***	-0.0590***	-0.617***	-0.106***	-0.00351	0.473***	-0.667***	1			
InvProtection (19)	-0.575***	-0.0000722	-0.397***	-0.0120**	-0.0309***	0.626***	-0.954***	0.702***	1		
Enforcement (20)	-0.415***	0.0512***	-0.300***	-0.116***	-0.0658***	-0.0116*	-0.538***	0.489***	0.573***	1	
Openness (21)	0.506***	0.0588***	0.550***	0.138***	0.130***	0.0810***	0.386***	-0.593***	-0.477***	-0.769***	1

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Table 1. Sample selection process

114,336	We focus on the countries adopting IFRS on a mandatory basis in 2005 or later and collect data from the year of IFRS adoption until 2015
26,879	Firm-year observations for which data item indicating accounting standards is missing or reporting standards are not IFRS
10,391	First-time IFRS adopters
16,326	Firms from Financial industry or unclassified
9,657	Firm-year observations that have had their financial year end changed
9,694	Firm-year observations with missing firm-specific data
11,731	Firm-year observations with missing country-specific data
1,445	Firm-year observations with missing international portfolio diversification data used to measure market openness
1,331	Outliers*
26,882	**final sample *[t = 2006, 2015] [4,879 firms]***

*Following Haw et al. (2012) and Lundholm and Myers (2002), we define as outliers firm-year observations when the absolute value of scaled current and lagged earnings are above one. We also define as outliers those firm-year observations when the absolute value of the sum of future earnings is above three.

Table 2. Firm-level descriptive statistics

Variable	Mean	St. Dev.	Min	Median	Max
$E_{t+1,+3}$	0.050	0.535	-2.971	0.149	1.771
E_t	0.011	0.169	-0.999	0.051	0.380
E_{t-1}	0.017	0.167	-1.000	0.047	0.584
R_t	0.120	0.542	-0.859	0.032	3.442
$R_{i,t+1,+3}$	0.373	1.039	-0.930	0.145	7.029
$UA*E_{t+1,+3}$	0.017	0.296	-2.655	0.028	1.678
Persistence	0.262	0.440	0.000	0.000	1.000
EarnVol	0.256	0.511	0.008	0.091	3.770
BM	0.860	0.781	-1.541	0.646	5.251
Size	12.493	2.390	5.361	12.269	20.846
Opacity	-0.036	0.088	-0.332	-0.035	0.299

See Appendix A for the definitions of the variables.

Table 3. Country-level descriptive statistics

Country	*Year of IFRS adoption*	*N*	*UA*	*Disclosure*	*Own*	*MarketTradingVolume*	*MarketVolatility*	*NonCatholic*	*CivCom*	*MarketDev*	*InvProtection*	*Enforcement*	*Openness*
Argentina	2012	104	86	0.949	66.784	53.066	1.584	0	1	0.010	0.342	11	6.751
Austria	2005	393	70	0.922	64.534	21.950	0.248	0	1	0.030	0.213	27	5.474
Brazil	2010	1,145	76	0.879	40.077	87.950	0.204	0	1	0.037	0.274	23	4.017
Finland	2005	885	59	0.912	32.115	83.338	0.341	1	1	0.072	0.457	32	4.965
France	2005	3,169	86	0.871	57.814	26.049	0.284	0	1	0.070	0.379	45	2.910
Germany	2005	3,471	65	0.918	53.804	0.683	0.416	0	1	0.042	0.282	44	3.135
Greece	2005	1,435	112	0.913	62.722	165.025	0.336	1	1	0.034	0.217	26	6.209
Ireland	2005	32	35	0.508	19.078	303.006	0.199	0	0	0.028	0.789	41	8.508
Israel	2008	1,379	81	0.928	66.325	248.970	2.929	1	0	0.053	0.725	48	5.361
Italy	2005	1,628	75	0.903	56.014	400.202	0.252	0	1	0.032	0.421	46	3.992
Malaysia	2012	452	36	0.910	67.001	197.274	0.290	1	0	0.110	0.950	40	4.975
Mexico	2012	94	82	0.912	61.727	134.812	0.236	0	1	0.037	0.172	25	4.758
Netherlands	2005	602	53	0.904	37.344	69.777	0.248	0	1	0.061	0.203	43	3.338
Philippines	2005	681	44	0.883	74.725	813.036	16.224	0	1	0.050	0.215	27	6.095
Portugal	2005	178	104	0.849	66.986	538.768	0.408	0	1	0.033	0.444	29	5.850
South Africa	2005	1,185	49	0.886	41.457	79.138	0.877	1	0	0.110	0.813	29	4.009
Spain	2005	685	86	0.909	54.531	104.780	0.344	0	1	0.051	0.374	42	3.630
Sweden	2005	1,952	29	0.885	29.328	101.275	0.446	1	1	0.092	0.333	34	4.097
Turkey	2005	1,859	85	0.896	64.082	1011.266	0.830	1	1	0.024	0.429	20	5.456
United Kingdom	2005	5,553	35	0.898	35.830	134.066	0.812	1	0	0.112	0.950	54	2.002

See Appendix A for the definitions of the variables.

Table 4. Descriptive statistics across countries with low and high uncertainty avoidance and market openness

Panel A: Descriptive statistics across low and high UA

	High UA (9,268)		Low UA (17,614)		Test of difference	
	Mean	Median	Mean	Median	*t-test*	*Man-Witney test*
$E_{t+1,+3}$	0.043	0.135	0.054	0.154	-0.011*	-0.018
E_t	0.013	0.050	0.010	0.051	0.003	-0.001***
E_{t-1}	0.022	0.048	0.014	0.047	0.009***	0.001***
R_t	0.108	0.001	0.126	0.048	-0.018***	-0.047***
$R_{i,t+1,+3}$	0.358	0.079	0.381	0.179	-0.023**	-0.100***
Persistence	0.265	0.000	0.261	0.000	0.004	0.000
EarnVol	0.289	0.099	0.239	0.087	0.050***	0.012***
BM	1.031	0.754	0.770	0.599	0.261***	0.155***
Size	12.925	12.796	12.267	12.046	0.658***	0.750***
Opacity	-0.029	-0.031	-0.039	-0.037	0.010***	0.006***
Disclosure	0.898	0.905	0.898	0.907	-0.001	-0.002*
Own	56.821	59.020	45.784	39.470	11.037***	19.550***
MarketTradingVolume	398.746	192.223	90.859	67.736	307.887***	124.487***
MarketVolatility	1.652	0.249	0.704	0.309	0.948***	-0.060***
NonCatholic	0.532	1.000	0.555	1.000	-0.023***	0.000***
CivCom	0.823	1.000	0.605	1.000	0.219***	0.000***
MarketDev	0.048	0.035	0.077	0.070	-0.029***	-0.034***
InvProtection	0.427	0.421	0.558	0.379	-0.131***	0.042***
Enforcement	30.083	26.000	45.364	45.000	-15.281***	-19.000***
Openness	4.849	4.802	3.207	3.046	1.642***	1.755***

Panel B: Descriptive statistics across low and high market openness

	High market openness (18,489)		Low market openness (8,393)		Test of difference	
	Mean	Median	Mean	Median	*t-test*	*Man-Witney test*
$E_{t+1,+3}$	0.052	0.153	0.045	0.135	0.007	0.018
E_t	0.012	0.051	0.008	0.049	0.004**	0.002
E_{t-1}	0.018	0.048	0.014	0.045	0.004**	0.002*
R_t	0.107	0.035	0.147	0.027	-0.040***	0.008**
$R_{i,t+1,+3}$	0.373	0.162	0.375	0.106	-0.002	0.056***
Persistence	0.252	0.000	0.284	0.000	-0.032***	0.000***
EarnVol	0.248	0.087	0.275	0.099	-0.028***	-0.012***
BM	0.803	0.612	0.986	0.736	-0.183***	-0.123***
Size	12.523	12.286	12.428	12.234	0.095***	0.052***
Opacity	-0.038	-0.036	-0.030	-0.032	-0.008***	-0.005***
UA	57.472	65.000	75.919	81.000	-18.446***	-16.000***
Disclosure	0.894	0.897	0.906	0.913	-0.012***	-0.016***
Own	45.136	42.240	59.399	65.000	-14.263***	-22.760***
MarketTradingVolume	93.791	67.736	424.384	192.223	-330.593***	-124.487***
MarketVolatility	0.517	0.277	2.161	0.274	-1.644***	0.004***
NonCatholic	0.440	0.000	0.783	1.000	-0.343***	-1.000***
CivCom	0.643	1.000	0.763	1.000	-0.120***	0.000***
MarketDev	0.075	0.068	0.049	0.043	0.027***	0.025***
InvProtection	0.544	0.379	0.443	0.429	0.100***	-0.050***
Enforcement	44.226	45.000	30.996	27.000	13.231***	18.000***

Countries with high (low) uncertainty avoidance (market openness) are defined as those countries with a score above (below) the uncertainty avoidance (market openness) score of all countries in our sample. See Appendix A for the definitions of the variables. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

Table 5. Share price anticipation of future earnings and the effect of uncertainty avoidance

	Stock returns at year t			
	(1)	(2)	(3)	(4)
	Base line	Uncertainty avoidance	Firm-level controls	Firm and country controls
Constant	0.416***	0.412***	0.475***	0.351***
	(15.15)	(14.92)	(15.94)	(10.31)
$E_{t+1,+3}$	0.169***	0.203***	0.260***	0.301***
	(19.73)	(14.62)	(8.02)	(5.75)
E_t	0.598***	0.597***	0.518***	0.505***
	(24.36)	(24.33)	(16.69)	(16.66)
E_{t-1}	-0.417***	-0.420***	-0.395***	-0.358***
	(-15.93)	(-16.04)	(-15.32)	(-14.15)
$R_{i,t+1,+3}$	-0.033***	-0.033***	-0.029***	-0.032***
	(-8.94)	(-8.97)	(-7.77)	(-8.87)
$UA*E_{t+1,+3}$		-0.069***	-0.081***	-0.103***
		(-3.46)	(-3.98)	(-2.89)
UA		0.013	0.019*	-0.173***
		(1.21)	(1.80)	(-10.74)
*Opacity** $E_{t+1,+3}$			-0.032	-0.032
			(-1.58)	(-1.62)
Opacity			-0.060***	-0.060***
			(-5.79)	(-5.99)
$Size_t* E_{t+1,+3}$			0.088***	0.075***
			(3.96)	(3.40)
$Size_t$			0.062***	0.059***
			(6.02)	(6.02)
Persistence * $E_{t+1,+3}$			-0.089***	-0.091***
			(-6.14)	(-6.40)
Persistence			-0.068***	-0.072***
			(-6.43)	(-6.89)
*EarnVol** $E_{t+1,+3}$			-0.002	-0.009
			(-0.06)	(-0.35)
EarnVol			0.110***	0.105***
			(9.55)	(9.40)
$BM_t* E_{t+1,+3}$			-0.041*	-0.066***
			(-1.92)	(-3.16)
BM_t			-0.227***	-0.227***
			(-20.88)	(-21.60)
*Disclosure** $E_{t+1,+3}$				-0.003
				(-0.12)
Disclosure				-0.040***
				(-3.64)
*Own** $E_{t+1,+3}$				-0.004
				(-0.13)
Own				0.101***
				(7.19)
*MarketTradingVolume** $E_{t+1,+3}$				-0.031
				(-1.17)
MarketTradingVolume				0.076***
				(5.97)
*MarketVolatility** $E_{t+1,+3}$				0.004
				(0.21)
MarketVolatility				0.344***
				(32.06)

NonCatholic $E_{t+1,+3}$*				-0.001
				(-0.07)
NonCatholic				-0.087***
				(-8.64)
CivCom $E_{t+1,+3}$*				0.007
				(0.21)
CivCom				0.002
				(0.13)
MarketDev $E_{t+1,+3}$*				0.062*
				(1.70)
MarketDev				0.047***
				(2.58)
InvProtection $E_{t+1,+3}$*				-0.039
				(-0.90)
InvProtection				0.072***
				(3.70)
Enforcement $E_{t+1,+3}$*				-0.021
				(-0.58)
Enforcement				-0.149***
				(-8.59)
Year FEs	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	Yes	Yes
N	26,882	26,882	26,882	26,882
R2-Adj	0.261	0.262	0.284	0.316
F	412.6	378.3	316.8	218.6

This table shows the significance of uncertainty avoidance regarding the relation between current stock returns and firm's future earnings. Our dependent variable is stock returns at year *t* and the main independent variable is the interaction between uncertainty avoidance and the sum of future earnings of firm *i* for the 3 years following the current year ($UA*E_{t+1,+3}$). Appendix A offers detailed definitions of the variables used. Standard errors are clustered at the firm level. T-statistics are shown in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 6. Share price anticipation of future earnings, uncertainty avoidance and market openness

	Stock returns at year t	
	(1)	(2)
	Firm, country and market openness controls	Firm, country controls and the moderating effect of market openness
Constant	0.353***	0.312***
	(9.77)	(8.53)
$E_{t+1,+3}$	0.335***	0.379***
	(5.59)	(6.13)
E_t	0.504***	0.504***
	(16.66)	(16.65)
E_{t-1}	-0.358***	-0.358***
	(-14.15)	(-14.20)
$R_{i,t+1,+3}$	-0.032***	-0.033***
	(-8.84)	(-9.17)
$UA*E_{t+1,+3}$	-0.103***	-0.206***
	(-2.86)	(-3.64)
UA	-0.173***	-0.063**
	(-10.70)	(-2.14)
Openness * $E_{t+1,+3}$*UA		0.255**
		(2.45)
Openness * $E_{t+1,+3}$	-0.058	-0.130**
	(-1.18)	(-2.30)
*Openness *UA*		-0.241***
		(-4.56)
Openness	-0.003	0.067***
	(-0.15)	(2.64)
*Opacity** $E_{t+1,+3}$	-0.031	-0.031
	(-1.55)	(-1.58)
Opacity	-0.060***	-0.060***
	(-6.02)	(-6.05)
$Size_t$* $E_{t+1,+3}$	0.076***	0.077***
	(3.43)	(3.46)
$Size_t$	0.059***	0.059***
	(6.03)	(6.00)
Persistence * $E_{t+1,+3}$	-0.091***	-0.092***
	(-6.39)	(-6.44)
Persistence	-0.072***	-0.073***
	(-6.88)	(-6.98)
*EarnVol** $E_{t+1,+3}$	-0.011	-0.018
	(-0.44)	(-0.69)
EarnVol	0.105***	0.107***
	(9.43)	(9.64)
BM_t* $E_{t+1,+3}$	-0.066***	-0.067***
	(-3.12)	(-3.20)
BM_t	-0.227***	-0.226***
	-0.008	-0.008
*Disclosure** $E_{t+1,+3}$	(-0.38)	(-0.34)
	-0.040***	-0.039***
Disclosure	(-3.76)	(-3.64)
	-0.030	-0.007
*Own** $E_{t+1,+3}$	(-0.86)	(-0.20)
	0.100***	0.078***
Own	(6.44)	(4.68)
	-0.045	-0.059**
*MarketTradingVolume** $E_{t+1,+3}$	(-1.50)	(-1.98)

	0.075***	0.081***
MarketTradingVolume	(5.14)	(5.54)
	0.010	0.014
MarketVolatility $E_{t+1,+3}$*	(0.43)	(0.62)
	0.344***	0.336***
MarketVolatility	(31.22)	(30.70)
	-0.016	0.029
NonCatholic $E_{t+1,+3}$*	(-0.67)	(0.98)
	-0.087***	-0.120***
NonCatholic	(-6.99)	(-7.67)
	0.005	0.002
CivCom $E_{t+1,+3}$*	(0.14)	(0.06)
	0.001	-0.004
CivCom	(0.06)	(-0.32)
	0.067*	0.033
MarketDev $E_{t+1,+3}$*	(1.82)	(0.87)
	0.046**	0.072***
MarketDev	(2.49)	(3.57)
	-0.013	-0.077
InvProtection $E_{t+1,+3}$*	(-0.26)	(-1.29)
	0.074***	0.138***
InvProtection	(3.44)	(5.18)
	-0.003	0.032
Enforcement $E_{t+1,+3}$*	(-0.09)	(0.77)
	-0.147***	-0.173***
Enforcement	(-8.09)	(-9.00)
	(-21.57)	(-21.54)
Year FEs	Yes	Yes
Industry FEs	Yes	Yes
N	26,882	26,882
R2-Adj	0.32	0.32
F	211.4	205.9

This table shows the significance of uncertainty avoidance and market openness regarding the relation between current stock returns and firm's future earnings. Our dependent variable is stock returns at year *t* and the main independent variable is the interaction between uncertainty avoidance and future earnings ($UA*E_{t+1,+3}$) and the interaction between uncertainty avoidance, future earnings and market openness ($Openness * E_{t+1,+3}$*UA). Appendix A offers detailed definitions of the variables used. Standard errors are clustered at the firm level. T-statistics are shown in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 7. Share price anticipation of future earnings, uncertainty avoidance and market openness: Additional cultural factors

	Stock returns at year t	
	(1)	(2)
	Firm and country controls	Firm and country controls and the moderating effect of market openness
Constant	0.361***	0.311***
	(10.51)	(8.45)
$E_{t+1,+3}$	0.264***	0.375***
	(4.96)	(6.11)
E_t	0.507***	0.507***
	(16.72)	(16.76)
E_{t-1}	-0.357***	-0.357***
	(-14.12)	(-14.14)
$R_{i,t+1,+3}$	-0.032***	-0.033***
	(-8.91)	(-9.24)
$UA*E_{t+1,+3}$	-0.133***	-0.294***
	(-3.04)	(-4.87)
UA	-0.148***	-0.034
	(-7.52)	(-1.12)
Openness * $E_{t+1,+3}$*UA		0.377***
		(3.45)
*Openness *UA*		-0.251***
		(-4.74)
Openness * $E_{t+1,+3}$		-0.228***
		(-3.70)
Openness		0.098***
		(3.57)
$PD*E_{t+1,+3}$	0.094**	0.163***
	(2.54)	(4.01)
PD	-0.012	-0.035**
	(-0.71)	(-2.13)
$IDV*E_{t+1,+3}$	0.104*	0.146**
	(1.92)	(2.57)
IDV	-0.075***	-0.083***
	(-2.86)	(-2.76)
Firm controls	Yes	Yes
Country controls	Yes	Yes
Year FEs	Yes	Yes
Industry FEs	Yes	Yes
N	26,882	26,882
R2-Adj	0.316	0.317
F	202.7	191.8

This table shows the significance of uncertainty avoidance and market openness regarding the relation between current stock returns and firm's future earnings when controlling for additional cultural factors. Our dependent variable is stock returns at year *t* and the main independent variable is the interaction between uncertainty avoidance and future earnings ($UA*E_{t+1,+3}$) and the interaction between uncertainty avoidance, future earnings and market openness (*Openness* * $E_{t+1,+3}$*UA). Appendix A offers detailed definitions of the variables used. Standard errors are clustered at the firm level. T-statistics are shown in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 8. Robustness tests

	Exclude countries with fewer than 150 observations		Use of Hofstede to measure Uncertainty avoidance		Exports to GDP
	(1)	(2)	(3)	(4)	(5)
Constant	0.345***	0.298***	0.314***	0.354***	0.356***
	(10.27)	(8.19)	(9.74)	(10.19)	(7.73)
$UA * E_{t+1,+3}$	-0.098***	-0.198***	-0.104***	-0.202***	-0.155**
	(-2.82)	(-3.64)	(-3.34)	(-4.72)	(-2.04)
E_{t+1}	0.297***	0.377***	0.320***	0.412***	0.400***
	(5.98)	(6.36)	(6.49)	(6.91)	(4.88)
E_t	0.492***	0.492***	0.499***	0.499***	0.490***
	(16.32)	(16.33)	(17.35)	(17.36)	(16.62)
E_{t-1}	-0.356***	-0.355***	-0.372***	-0.373***	-0.369***
	(-14.11)	(-14.12)	(-15.38)	(-15.43)	(-14.94)
$R_{i,t+1,+3}$	-0.037***	-0.038***	-0.031***	-0.031***	-0.031***
	(-10.52)	(-10.76)	(-8.80)	(-8.79)	(-8.93)
UA	-0.150***	-0.070**	-0.095***	-0.136***	-0.181***
	(-9.69)	(-2.57)	(-6.75)	(-6.63)	(-5.17)
Openness * $E_{t+1,+3}$*UA		0.246**		0.235***	
		(2.50)		(2.92)	
Openness * $E_{t+1,+3}$		-0.130**		-0.138***	
		(-2.34)		(-2.80)	
*Openness *UA*		-0.180***		0.074**	
		(-3.59)		(2.11)	
Openness		0.077***		-0.060***	
		(3.06)		(-2.75)	
Trade * $E_{t+1,+3}$*UA					0.240*
					(1.71)
Trade * $E_{t+1,+3}$					-0.075
					(-1.03)
*Trade *UA*					0.154**
					(2.28)
Trade					-0.056
					(-1.63)
Firm controls	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	Yes	Yes	Yes
N	26,652	26,652	29,144	29,144	28,242
R2-Adj	0.319	0.319	0.310	0.310	0.317
F	218.7	205.8	226.4	211.7	216.6

This table shows the robustness of results reported in Table 5 and Table 6. Once again, our dependent variable is stock returns at year *t* and the main independent variable is the interaction between secrecy and earnings. All controls used earlier are added at all estimations, though due to space considerations, we only present the most important parameter coefficients. Appendix A offers detailed definitions of the variables used. Standard errors are clustered at the firm level. T-statistics are shown in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 9. Share price anticipation of future earnings, uncertainty avoidance and market openness: Aggregate results

	Future earnings response coefficient			
	Full sample		Excluding UK	
	(1) Country-level controls	(2) Country-level controls and moderating effect of market openness	(3) Country-level controls	(4) Country-level controls and moderating effect of market openness
Constant	0.194	0.228*	0.166	0.206
	(1.51)	(1.80)	(1.22)	(1.53)
UA	-0.017	-0.229**	-0.033	-0.238**
	(-0.25)	(-2.14)	(-0.46)	(-2.09)
*Openness *UA*		0.486**		0.479**
		(2.54)		(2.32)
Openness	0.036	-0.126	0.080	-0.096
	(0.39)	(-1.15)	(0.78)	(-0.76)
Disclosure	0.165***	0.170***	0.176***	0.182***
	(3.41)	(3.57)	(3.39)	(3.57)
Own	-0.130*	-0.087	-0.132	-0.087
	(-1.67)	(-1.11)	(-1.60)	(-1.04)
MarketTradingVolume	0.056	0.078	0.091	0.106
	(0.92)	(1.30)	(1.35)	(1.59)
MarketVolatility	0.063	0.090**	0.077	0.100**
	(1.41)	(1.98)	(1.60)	(2.07)
NonCatholic	-0.069	-0.017	-0.071	-0.022
	(-1.57)	(-0.36)	(-1.52)	(-0.43)
CivCom	0.004	-0.015	0.031	0.000
	(0.07)	(-0.25)	(0.46)	(0.00)
MarketDev	0.188**	0.189**	0.193**	0.200**
	(2.40)	(2.45)	(2.29)	(2.42)
InvProtection	-0.070	-0.188**	-0.087	-0.201**
	(-0.93)	(-2.14)	(-1.08)	(-2.17)
Enforcement	-0.076	-0.029	-0.097	-0.048
	(-0.93)	(-0.35)	(-1.12)	(-0.55)
Year FEs	Yes	Yes	Yes	Yes
N	154	154	144	144
R2-Adj	0.225	0.256	0.225	0.252
F	3.119	3.395	2.979	3.192

This table shows the significance of uncertainty avoidance regarding its effect upon the relation between current stock returns and firm's future earnings. Our dependent variable is the future earnings response coefficient estimated using Equation (1) for each country-year portfolio with a minimum of 20 observations. We control for country variables at Column 1 and 3 and include an interaction term between uncertainty avoidance and market openness at Column 2 and 4. Appendix A offers detailed definitions of the variables used. T-statistics are shown in parentheses. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.