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Does the earnings quality matter? Evidence from a quasi-experimental setting

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ABSTRACT

Investor preference for local stocks provides a quasi-experimental setting to investigate whether the market rewards firms that comply with generally accepted accounting principles. We show firms with low earnings quality trade at a premium compared to firms in compliance with accounting principles; the difference in values is greater when the role of local investor over-trading is stronger in stock price-formation, in other words for the more isolated firms. The value of the information not conveyed to the market through accounting disclosure accounts for 30% of the market-to-book. Results are robust to earnings quality definition, and show while non-local investors are sensitive to the quality of accounting information, local and better-informed investors are not. Overall, accounting quality matters.

1. Introduction

The global financial crisis of 2007–2008 highlighted a fundamental need for transparency in corporate practices (e.g., Arnold, 2009; Barth and Landsman, 2011). For more than 40 years, the literature has been calling for more informative accounting disclosures and increased emphasis on detecting earnings management and fraudulent reporting (e.g., Chung et al., 2009; Dechow et al., 2010; Kothari, 2001; Lahr, 2014). Interestingly, research on compliance does not provide a clear picture on the relationship between firms' reporting quality and financial consequences, and whether the market rewards compliance with accounting principles is also unclear (e.g., Bhattacharya et al., 2003; Chan et al., 2006; Core et al., 2008; Francis et al., 2005; Morricone et al., 2009). Francis et al., (2005) show that reporting quality matters since investors price securities based on their awareness of accruals quality. On the other hand, Core et al., (2008) find no evidence that accruals quality is a priced risk factor and Lev (1989) suggests only a weak correlation between stock market returns and earnings disclosure, concluding that '*earnings manipulation is prevalent; but, except for egregious cases, it is hard to detect and prosecute*' (Lev, 2003, p. 48).

This paper exploits the quasi-experimental setting provided by investor tendency to overinvest in geographically proximate, or local stocks (the so-called Local Home Bias) (e.g., Coval and Moskowitz, 1999; Cumming and Johan, 2006) to investigate whether the market rewards firms that comply with accounting principles. The Local Home Bias is double-faced in

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nature. On one side, it stems from information advantages on local firms: proximity gives investors greater value-relevant information about the local firms, leading investors to prefer local firms over non-local firms (e.g., Coval and Moskowitz, 2001; Cumming and Dai, 2010; Ivković and Weisbenner, 2005). On the other hand, behavioural factors also come into play (e.g., Grinblatt and Keloharju, 2001; Levis et al., 2015; Shan and Gong, 2012). For instance, Grinblatt and Keloharju (2001) provide evidence that shareholders are more likely to trade in local stocks when the issuing firm CEO communicates in the same language as the investor or shares the same cultural background. This investor preference for local stocks even affects corporate market values (e.g., Baschieri et al., 2015; Hong et al., 2008; Korniotis and Kumar, 2013b). In fact, since a portion of local investor wealth will be invested in local equity, the lower the number of local firms, the higher the amount of local wealth invested in each local firm. As a result, isolated firms trade at a premium compared to non-isolated firms. In addition, as they are more informed, local investors ask for lower returns on local firms. Therefore, with respect to clustered firms the isolated firms benefit from a larger clientele of local investors asking for lower returns, and ultimately have higher market values.

The investor preference for local equity provides a quasi-experimental setting to test whether the market rewards compliance with accounting principles as the Local Home Bias disentangles the accounting information, or the information available to both local and non-local investors, from the local information, which is only available to local investors. Firms with full disclosure and high earnings quality, or firms that fully comply with accounting principles, are identical to both local and non-local investors, causing the information advantage for local investors to vanish. On the other hand, firms with partial disclosure and low earnings quality, or opaque firms, allow local investors to gain a valuable informational advantage as partial disclosure increases the information risk[1] for non-local investors. Therefore, they tend to shy away from opaque firms or, ask for higher returns in compensation for larger information asymmetries, while local investors move towards opaque local firms, trying to exploit their information advantage. This turn of events creates an apparent paradox, where firms with low earnings quality trade at a premium compared to firms with high earnings quality; the difference in firm values is greater when the role of local investor over-trading is stronger in stock price-formation, in other words for the more isolated firms. Therefore, we argue that the more a firm is isolated from other listed firms, the more a firm with low earnings quality trades at a premium compared with a firm with high earnings quality. The differential market value between low and high earnings quality firms is the value of the information that is not conveyed to the market through the accounting disclosure, or, in other words, it is the value of the accounting information.

Investment in local equity is not only driven by superior information on local firms (e.g., Coval and Moskowitz, 2001; Ivković and Weisbenner, 2005), but is also enhanced by the familiarity investors feel towards nearby companies (e.g., Grinblatt and Keloharju, 2001; Huberman, 2001), and our results might be affected by this behaviour. Within low and high earnings quality firms, we overcome this issue by further distinguishing under- from over-performing stocks (e.g., stocks with positive Jensen's alpha in the next 3 years). In line with the literature (e.g., Korniotis and Kumar, 2013a), we assume that investors with superior information are able to distinguish local under- from local over-performing stocks and pursue long positions only on local over-performing stocks (ignoring local under-performing stocks). On the other hand, when investors show a preference for local stocks based on feelings of familiarity with nearby firms, they are expected to be equally attracted to both under- and over-performing local stocks. In this case, over-performing firms are predicted to trade at a premium compared with under-performing firms and the difference in market values tells us to what extent the investor preference for local stocks is indeed driven by superior information. To the extent that the empirical patterns of high and low earning quality firms are unchanged across under- and over-performing stocks, our results are not affected.

To test our conjectures we analysed the Italian firms listed on the Milan Stock Exchange (MSE) over the period 1999–2011. The MSE ranks at the top among informationally opaque financial markets (e.g., Bhattacharya et al., 2003; Leuz et al., 2003) and uncertain legality in Italy is widely recognised (e.g. Cumming and Zambelli, 2013; Bigelli and Mengoli, 2011) with Leuz et al., (2003) classifying Italy fourth out of 31 countries for earnings management. Although Consob (the Italian equivalent of US SEC) has improved disclosure requirements for firms listed on the MSE (e.g., segment information disclosure in compliance to IAS 14) with legislative decree 58/1998 (Consolidated Law on Finance), the regulations give no details about how or what quantity of information should be disclosed. There is no clear sanction for companies that do not comply and as a result, disclosure by Italian firms is limited due to disclosure-related costs and the risk of providing useful information to competitors (Prencipe, 2004). Therefore, Italy represents an ideal research setting for investigating value implications of firm compliance with accounting principles (Mengoli et al., 2009; Pazzaglia et al., 2013).

In line with the literature (e.g. Hong et al., 2008), we find that corporate market values increase the more the issuing firm is isolated from the other listed firms. Furthermore, we find over-performing firms trade at a premium compared with under-performing firms, and the wedge between the market values increases with the extra-performance period. Overall this evidence is consistent with local investor superior information on local stocks. When low vs. high earnings quality firms are investigated, results are as expected. We use a wide range of market- and accounting-based measures to proxy for firm earnings quality: in all cases the more the firm is isolated from the other listed firms, the more the firm with low earnings quality trades at a premium compared to the firm with high earnings quality. In addition, the market value of low earnings quality firms is larger for over-performing than for under-performing firms, and increases with the extra-

[1] For instance, in Bertinetti and Mantovani (2012) the information risk originates from the timing of the information spreading in the market, the errors in the information, and the ways the information is transmitted to the market. Huang and Cheng (2013) define the information risk as the ambiguity of the information possessed by market participants.

performance period. This evidence shows local investors profitably exploit the locally available information by investing in opaque firms with positive future risk-adjusted performance. The value of the local information drops with the earnings quality and accounts for approximately 30% of the market-to-book: remarkably, this represents the value of the information not conveyed to the market through the accounting disclosure.

We first add to the literature on the relation between the quality of reporting and capital market consequences. In fact, we show that compliance with accounting principles matters. Yet, while extant literature shows either the existence of a positive relation (e.g., Francis et al., 2005) or the lack of a relation (e.g., Core et al., 2008) between accruals quality and corporate market valuation, we find a negative relation between earnings quality and investor trading pattern when taking a local perspective of analysis. Our results suggest investors evaluate the earnings quality according to their location and this has pricing implications. In fact, the quality of accounting information seems to be irrelevant when local investors evaluate stocks. On the other hand, the firm earnings quality matters in order to define the value of the information advantage local investors have compared to the rest of the market. Ultimately, the proportion of local vs. non-local investors defines the effect of earnings quality on market values.

Differently from previous research, we focus on compliance value implications consistent with active investors exploiting the local information advantage available to them. As such, we add a new perspective to the literature addressing the value of firm disclosure in attracting investors and signalling the firm's quality to the market (e.g., Al Jifri and Citron, 2009). Yet, unlike previous studies, our results suggest firms might voluntarily decide not to face the costs of full information disclosure due to the value enhancing effect of local investor trading, based on recognition of the firm's fair value.

Overall, our results show that firm opacity leverages the bias of investors to invest locally. This evidence is consistent with recent behavioural models (e.g., Daniel et al., 1998, 2001; Hirshleifer, 2001) and previous evidence (e.g., Kumar, 2009) of a positive bias-uncertainty relation. For instance, Kumar (2009) documents that '*during times of greater market-level uncertainty, investors exhibit a stronger preference for familiar stocks and tilt their portfolios more toward domestic and local stocks*' (p. 1377). Our findings are related to this strand of literature showing a positive relation between the Local Home Bias and the level of uncertainty; unlike other studies, we address this relationship at the firm-level rather than at market-level.

The remainder of the paper is structured as follows. Section 2 illustrates the sample and the methodology. Section 3 investigates the over- and under-performing firms. Section 4 presents evidence on low and high earnings quality firms. Section 5 concludes.

2. Methodology

2.1. Data and sample selection

We investigated several data sources: (i) the databases provided by Consob (i.e., the equivalent of US SEC) for our sample; (ii) Osiris (Bureau Van Dijk database) and company annual reports for data on firm location; (iii) the archives provided by *Borsa Italiana S.p.A.* (the MSE's managing company) for information on securities listings; (iv) the electronic archive of the financial newspaper *Il Sole 24Ore* for press coverage; (v) the investment guide *Il Calepino dell' Azionista* for firm age; (vi) the databases of ISTAT (Italian Institute of Statistics) and *Centro Studi Unioncamere* (the research centre of regional Chambers of Commerce) for information on wealth distribution; and (vii) Datastream and Worldscope (Thompson Financial) for all other accounting and financial information. Finally, Google Maps allowed us to collect the geographic coordinates (i.e., latitude and longitude) of each sampled firm headquarters.

Our initial sample consists of 3020 firm-year observations for firms issuing common stock on the MSE over the period 1999–2011. From the initial sample, we exclude observations (i) of non actively traded stocks, (ii) with ROE out of a range of plus one and minus one, (iii) not headquartered in Italy, and (iv) on financial firms (SIC 6000–6999). The resulting unbalanced panel data set consists of 2240 firm-year observations and is our final sample.

2.2. Methodology and variables definition

The logarithmic transformation of the market-to-book ratio (*LN(MARKET-TO-BOOK)*) is our left-hand side variable, while we proxy the level of firm isolation and hence the firm Local Home Bias through the variable *I_FIRM* (Baschieri et al., 2015). *I_FIRM* is the Johnson and Zimmer (1985) spatial dispersion index: it is based on point-to-point individual distances and computed for every firm-year observation on the spatial distribution of all other listed firms. The expected value of *I_FIRM* is approximately two: values lower than two reveal a low concentration of listed firms around the firm headquarters, while values higher than two indicate a higher concentration of listed firms around the firm headquarters. Therefore, a low value of *I_FIRM* represents isolated firms and indicates high Local Home Bias. Consistent with previous evidence, we expect the *MARKET-TO-BOOK* to be negatively affected by *I_FIRM*: the magnitude of this relation is the Local Home Bias effect, that is the portion of corporate market value related to the investor preference for local equity. As a robustness check, we re-run our analysis using the Hong et al., (2008)' *RATIO* variable as proxy for the Local Home Bias, with unchanged results (not reported).[2] Finally, as in Baschieri et al., (2015) and Hong et al., (2008), when we run our regressions we exclude financial firms, yet keep these observations when computing *I_FIRM* and *RATIO*.

We distinguish future risk-adjusted under- and over-performing firms. Firm risk-adjusted extra-performance is estimated by Jensen's alpha (Jensen, 1968) from an expanded index model regression (*ALPHA*), and upon a minimum of 6 months of weekly observations (Hutton et al., 2009). Over-performing firms are firms with positive *ALPHA*, while under-performing firms are firms with negative *ALPHA* ($ALPHA^+$ vs. $ALPHA^-$). We consider three progressively stronger and nested definitions of future over- and under-performing firms. In particular, we introduce three interacting dummy variables detecting firms with positive (negative) *ALPHA* in the prospective year only ($1yALPHA^+$ vs. $1yALPHA^-$), in both the next 2 years ($2yALPHA^+$ vs. $2yALPHA^-$), and in each of the next 3 years ($3yALPHA^+$ vs. $3yALPHA^-$). We expect the isolated $ALPHA^+$ firms to trade at a premium compared with isolated $ALPHA^-$ firms, and the magnitude of this relation increases with the Local Home Bias. In addition we predict this effect to increase as the over-performing period continues, i.e. shifting from $1yALPHA^+$ to $3yALPHA^+$.

We further distinguish low and high earnings quality firms. The literature provides a wide range of measures for earnings quality (EQ), and the selection of the most appropriate is definitely not trivial (e.g., Dechow et al., 2010; Ecker et al., 2013). Yet, lack of transparency is associated with higher R^2s, indicating little revelation of firm-specific information (e.g., Hutton et al., 2009; Jin and Myers, 2006). Consistent with measurement issues, we implement several alternative proxies for EQ. We use three market-based measures of EQ: (i) the negative skewness of beta-adjusted weekly residual returns divided by the cubed standard deviation (*EQ1 MARKET*) (e.g., Chen et al., 2001; Jin and Myers, 2006); (ii) the difference of downside frequencies and upside frequencies of the firm-specific weekly residual returns exceeding k standard deviations above and below the mean, with k chosen to generate frequencies of 0.01% in the normal distribution (*EQ2 MARKET*) (e.g., Hutton et al., 2009; Jin and Myers, 2006); and (iii) the idiosyncratic risk or firm-specific volatility as defined by the logistic transformation of R^2 (*EQ3 MARKET*) (e.g., Hutton et al., 2009; Morck et al., 2000). We also proxy EQ from accounting data using discretionary accruals (e.g., Christensen et al., 2013). We estimate discretionary accruals according to Dechow et al., (1995) (*DISC ACC*). We then proxy EQ with: (iv) the absolute value of *DISC ACC* (*EQ1 ACCOUNTING*) (e.g., Dechow et al., 1995), and v) the 3 years moving sum of *EQ1 ACCOUNTING* (*EQ2 ACCOUNTING*) (e.g., Hutton et al., 2009).[3] All measures are inversely related to EQ as, for instance, an increase in *EQ1 MARKET* means the stock is more "crash prone". Therefore, high earnings quality firms are firms with EQ below the cross-sectional median, and low earnings quality firms are firms with EQ above the cross-sectional median (*HIGH EQ* vs. *LOW EQ*). We expect to see a direct relationship between an increase in firm isolation and the *LOW EQ* firms trading at a premium compared to *HIGH EQ* firms.

In the multivariate analysis, we include a wide range of control variables. In particular we control for (with predictions):

- (+) local investor risk-tolerance (*I_INCOME*). *I_INCOME* is the Johnson and Zimmer (1985) spatial dispersion index computed for every firm-year observation on the spatial distribution of household disposable income. A high value of *I_INCOME* indicates a higher concentration of investor wealth around the firm headquarters. As in Aabo et al., (2013), Baschieri et al., (2015), and Hong et al., (2008), we assume local investor risk-tolerance proportional to the local wealth, and predict a positive relation between *MARKET-TO-BOOK* and *I_INCOME*;
- (+) current equity profitability (*ROE*): more profitable firms are expected to benefit from a higher market valuation, and a positive relation between *ROE* and *MARKET-TO-BOOK* is predicted (e.g., Bagella et al., 2000);
- (+) firm future growth opportunities (*R&D-TO-SALES*): superior growth prospects drive higher stock prices, and a positive relation with *MARKET-TO-BOOK* is expected (e.g., Hall and Oriani, 2006);
- (−) firm size, defined by total asset (*LN(1+FIRM SIZE)*): small firms are characterized by larger information asymmetries than large firms, and a negative relation with *MARKET-TO-BOOK* is predicted (e.g., van Dijk, 2011);
- (−) firm age, defined by the number of years of a firm's life since foundation (*LN(1+FIRM AGE)*): less information is usually available for younger firms which are therefore riskier than older firms, and a negative relation with *MARKET-TO-BOOK* is expected (e.g., Keloharju and Kulp, 1996);
- (+) firm press coverage, defined by the yearly number of newspaper articles reporting the firm name (*LN(1+PRESS COVERAGE)*). High media coverage is expected to disclose valuable information about the firm, and a positive relation with *MARKET-TO-BOOK* is predicted (e.g., Birz and Lott, 2011).

In addition, we include in all regressions (not shown) a dummy variable which equals one if the company does not report R&D expenditure (*R&D*) and zero otherwise (Chan et al., 2001), a set of four-digit SIC industry dummies, a set of exchange segment listing dummies, and a set of year dummies. Finally, we control for any possible cross-sectional and time-series correlation by clustering standard errors both at firm- and year-level, consistent with Petersen (2009).

Table 1 reports descriptive statistics for sampled firms, while Table A.1 in the Appendix provides detailed definitions of the variables here employed.

[2] Hong et al. (2008)'s key variable is the ratio (*RATIO*) of the equity book value of all listed firms headquartered within the same Census region (i.e. the local supply of stocks) and the disposable income of all households living in the region (i.e. the local demand for stocks).

[3] For robustness purposes we re-run our analysis using alternative definitions both for discretionary accruals and EQ. In particular, we also estimate discretionary accruals according to the method used in Ashbaugh et al. (2003) (*REDCA*) and we further define EQ with: vi-viii) the 3(5)(7) years moving standard deviation of *REDCA* (*EQ3(4)(5) ACCOUNTING*) (e.g., Chaney et al., 2011), and ix-x) the R^2 (Adjusted R^2) from the expanded index model regression of weekly returns (*R-SQUARED* and *ADJUSTED R-SQUARED*) (e.g., Hutton et al., 2009; Jin and Myers, 2006). In all the cases, results (not reported) are unchanged.

Table 1
Summary statistics.

	Mean	Median	25-tile	75-tile
Firm characteristic				
MARKET-TO-BOOK	2.28	1.65	1.14	2.52
I_FIRM	2.93	3.09	1.72	3.86
I_INCOME	2.06	2.18	1.90	2.27
ROE	5.05%	7.44%	1.07%	13.46%
R&D-TO-SALES	0.49%	0.00%	0.00%	0.00%
FIRM SIZE	11,433	507	169	3617
FIRM AGE	48	29	14	78
PRESS COVERAGE	32	14	8	27
Firm over-performance				
ALPHA	0.12%	0.07%	−0.27%	0.44%
1yALPHA$^+$	0.56	1.00	0.00	1.00
2yALPHA$^+$	0.34	0.00	0.00	1.00
3yALPHA$^+$	0.21	0.00	0.00	0.00
Firm earnings quality				
EQ1 MARKET	−15,347	−5935	−19,539	747
EQ2 MARKET	−0.25	0.00	−1.00	0.00
EQ3 MARKET	1.33	1.25	0.57	1.99
EQ1 ACCOUNTING	0.07	0.04	0.02	0.08
EQ2 ACCOUNTING	0.21	0.15	0.09	0.25

This table reports the summary statistics on firm characteristics. The sample consists of 2240 observations on Italian nonfinancial firms traded on the MSE over the period 1999–2011. All variables are defined as in the appendix.

3. Firm over-performance and the Local Home Bias

In this section, we test the significance of the relations between *LN(MARKET-TO-BOOK)* and *I_FIRM* across future risk-adjusted over- (*ALPHA*$^+$) and under-performing (*ALPHA*$^-$) firms. We expect a negative relation between *I_FIRM* and *MARKET-TO-BOOK*. In addition, we predict this effect to be larger in future over-performing than in under-performing firms (i.e., $\beta_1 < \beta_2$). Finally, we expect the effect of *I_FIRM* to increase shifting from firms with positive *ALPHA* in the prospective year only (*1yALPHA*$^+$) to firms over-performing in each of the next 3 years (*3yALPHA*$^+$). Table 2 shows the results.

As expected, the effect of *I_FIRM* on *LN(MARKET-TO-BOOK)* is negative and significant (Model 1: $\beta_1 = -0.087$, p-value < 0.05). When we distinguish over- and under-performing firms, results are as predicted. In fact, the relation between I_FIRM and MARKET-TO-BOOK remains negative and statistically significant. Furthermore, the effect of I_FIRM is stronger both in magnitude and in statistical significance in over- than in under-performing firms (e.g., Model 4: $\beta_1 = -0.143$, p-value < 0.01; $\beta_2 = -0.074$, p-value < 0.10; $F\text{-Test}_{\beta 1=\beta 2} = 2.88$, p-value < 0.10), meaning that, the more the firm is isolated, the more a firm with a positive future risk-adjusted performance trades at a premium compared to a future under-performing firm. Looking at the number of years the firm over-performs, as predicted the relation between *I_FIRM* and *MARKET-TO-BOOK* is stronger the longer the future over-performing period is, that is shifting from *1yALPHA*$^+$ (Model 2) to *3yALPHA*$^+$ (Model 4). For instance, the effect of *I_FIRM* in firms with positive *ALPHA* in each of the next 3 years is 52% higher than in firms over-performing in the prospective year only. In addition, the dummy variables detecting over-performing firms (i.e., *1yALPHA*$^+$, *2yALPHA*$^+$ and *3yALPHA*$^+$) are not significant in explaining the *MARKET-TO-BOOK*, suggesting non-local investors fail in detecting firms with positive *ALPHA*. Finally, the pattern of the control variables is as expected.

Our results suggest that the preference for local stocks is related to the information advantage investors possess about local firms: investors pick local isolated over-performing firms which eventually trade at a premium compared to local isolated under-performing firms. As further evidence, the difference in market values between isolated over- and under-performing firms increases with the over-performing period, that is when the local information advantage is more substantial and valuable. Yet, although lower in magnitude, the Local Home Bias effect detected in isolated under-performing firms support that even a behavioural component of investor preference for local stocks is in play. Economically, a measure of local investor information advantage can be inferred by considering the average sampled over-performing firm, for which *MARKET-TO-BOOK* is 1.65, *I_FIRM* is 3.09 and *3yALPHA*$^+$ is 1. Our findings imply that, all other things being equal, 0.94 of *MARKET-TO-BOOK* is attributable to *I_FIRM*. In fact, 0.442 ($0.442 = 0.143 \times 3.09$) is the estimated *LN(MARKET-TO-BOOK)* attributable to *I_FIRM*, and 1.556 ($1.556 = e^{(0.442)}$), is the corresponding estimated *MARKET-TO-BOOK*, which is 0.94 ($0.9428 = 1.556/1.65$) of *MARKET-TO-BOOK*. The same estimate for the average sampled under-performing firm (*3yALPHA*$^- = 1$) is about 0.76, meaning that the *MARKET-TO-BOOK* of isolated firms over-performing in each of the next 3 years is 18% higher than the *MARKET-TO-BOOK* of isolated firms with negative Jensen's alphas in the same period. This difference in value is entirely attributable to the superior information local investors possess about nearby firms. Similar but smoothed dynamics hold for firms over-(under-)performing in the next 2 and 1 years.

Table 2
The Local Home Bias and the firm over-performance.

Dependent variable		*LN(MARKET-TO-BOOK)*			
Independent variables		(1)	(2)	(3)	(4)
Constant		0.443	0.458	0.451	0.415
		(0.99)	(1.05)	(1.03)	(0.94)
I_FIRM		−0.087**			
		(−2.08)			
I_FIRM 1yALPHA*$^+$	β_1		−0.094**		
			(−2.26)		
I_FIRM 1yALPHA*$^-$	β_2		−0.085*		
			(−1.89)		
1yALPHA$^+$			−0.100		
			(−1.19)		
I_FIRM 2yALPHA*$^+$	β_1			−0.105**	
				(−2.38)	
I_FIRM 2yALPHA*$^-$	β_2			−0.083*	
				(−1.84)	
2yALPHA$^+$				−0.052	
				(−0.44)	
I_FIRM 3yALPHA*$^+$	β_1				−0.143***
					(−3.01)
I_FIRM 3yALPHA*$^-$	β_2				−0.074*
					(−1.69)
3yALPHA$^+$					0.066
					(0.47)
I_INCOME		0.420***	0.430***	0.423***	0.419***
		(2.62)	(2.68)	(2.61)	(2.59)
ROE		0.373*	0.421**	0.403**	0.399**
		(1.82)	(2.21)	(2.02)	(1.98)
R&D-TO-SALES		1.725	1.798	1.701	1.594
		(1.34)	(1.41)	(1.34)	(1.23)
LN(1+FIRM SIZE)		−0.074**	−0.074**	−0.073**	−0.072**
		(−2.18)	(−2.24)	(−2.23)	(−2.19)
LN(1+FIRM AGE)		−0.102***	−0.100***	−0.100***	−0.099***
		(−3.66)	(−3.56)	(−3.53)	(−3.52)
LN(1+PRESS COVERAGE)		0.255***	0.253***	0.253***	0.251***
		(5.37)	(5.32)	(5.40)	(5.20)
Dummy industry		YES	YES	YES	YES
Dummy exchange segment		YES	YES	YES	YES
Dummy year		YES	YES	YES	YES
Number of observations		1303	1303	1303	1303
R^2 – adjusted		0.426	0.434	0.432	0.434

This table reports the results of the multivariate analysis of relations between *LN(MARKET-TO-BOOK)* and *I_FIRM* controlling for firm over-performance. The sample consists of 2240 observations on Italian nonfinancial firms traded on the MSE over the period 1999–2011. All variables are defined as in the appendix. t-statistics based on standard errors clustered by firm and year are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

4. Firm earnings quality and the Local Home Bias

In this section, we test the significance of the relations between *LN(MARKET-TO-BOOK)* and *I_FIRM* across low and high earnings quality firms (*LOW EQ* vs. *HIGH EQ*). We expect the relation of *I_FIRM* with *MARKET-TO-BOOK* to be negative, and higher in over- rather than in under-performing firms (i.e., $\gamma_1 < \gamma_3$; $\gamma_2 < \gamma_4$). In addition, we predict the effect of *I_FIRM* to be higher in *LOW EQ* than in *HIGH EQ* (i.e., $\gamma_1 < \gamma_2$; $\gamma_3 < \gamma_4$), and the discrepancy of the effects to increase with firm over-performance, i.e. shifting from *1yALPHA*$^+$ to *3yALPHA*$^+$. Table 3 reports the results when market measures of EQ are considered: models 1–3 are with *EQ1 MARKET*, models 4–6 are with *EQ2 MARKET*, while models 7–9 use *EQ3 MARKET*.

In all models and for all measures of EQ, the relation between *I_FIRM* and *MARKET-TO-BOOK* is negative and, in most cases, statistically significant. Consistent with previous findings (cf. Table 2), the effect of *I_FIRM* on *MARKET-TO-BOOK* is always higher in over- rather than in under-performing firms (e.g., model 6: $\gamma_1 = -0.232$, p-value < 0.01; $\gamma_3 = -0.183$, p-value < 0.01; $F\text{-Test}_{\gamma 1 = \gamma 3} = 5.97$, p-value < 0.05). In addition, the effect of *I_FIRM* is higher in *LOW EQ* than in *HIGH EQ* firms (e.g., model 6, *3yALPHA*$^+ = 1$: $\gamma_1 = -0.232$, p-value < 0.01; $\gamma_2 = -0.147$, p-value < 0.01; $F\text{-Test}_{\gamma 1 = \gamma 2} = 7.98$, p-value < 0.01; *3yALPHA*$^- = 1$: $\gamma_3 = -0.183$, p-value < 0.01; $\gamma_4 = -0.069$, p-value > 0.10; $F\text{-Test}_{\gamma 3 = \gamma 4} = 11.22$, p-value < 0.01), meaning that, the more the issuing firm is isolated from the other listed firms, the more the opaque firm trades at a premium compared to the firm which is fully compliant with accounting principles. As predicted, the difference in market values in *LOW EQ* and *HIGH EQ* firms increases with firm future profitability. For instance, when EQ is measured through *EQ2 MARKET*, the

Table 3
The Local Home Bias and the earnings quality using market measures.

Dependent variable		*LN(MARKET-TO-BOOK)*								
MARKET EQ proxy		*EQ1*			*EQ2*			*EQ3*		
Independent variables		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant		0.312	0.314	0.278	0.325	0.322	0.301	0.327	0.349	0.330
		(0.72)	(0.73)	(0.64)	(0.72)	(0.71)	(0.67)	(0.69)	(0.74)	(0.70)
I_FIRM 1yALPHA+*LOW EQ*	γ_1	−0.113**			−0.208***			−0.126**		
		(−2.12)			(−5.24)			(−2.50)		
I_FIRM 1yALPHA+*HIGH EQ*	γ_2	−0.090*			−0.093**			−0.094*		
		(−1.86)			(−2.00)			(−1.86)		
I_FIRM 1yALPHA−*LOW EQ*	γ_3	−0.089			−0.174***			−0.098*		
		(−1.48)			(−3.03)			(−1.96)		
I_FIRM 1yALPHA−*HIGH EQ*	γ_4	−0.078			−0.078			−0.067		
		(−1.17)			(−1.16)			(−1.14)		
1yALPHA+		−0.071			−0.071			−0.030		
		(−0.71)			(−0.71)			(−0.28)		
*I_FIRM*2yALPHA+*LOW EQ*	γ_1		−0.125**			−0.197***			−0.135**	
			(−2.18)			(−3.87)			(−2.39)	
*I_FIRM*2yALPHA+ *HIGH EQ*	γ_2		−0.106**			−0.109**			−0.112**	
			(−2.09)			(−2.20)			(−2.19)	
*I_FIRM*2yALPHA−*LOW EQ*	γ_3		−0.090			−0.200***			−0.106**	
			(−1.56)			(−3.78)			(−2.13)	
*I_FIRM*2yALPHA−*HIGH EQ*	γ_4		−0.073			−0.077			−0.061	
			(−1.51)			(−1.61)			(−1.08)	
2yALPHA+			−0.019			−0.034			0.009	
			(−0.14)			(−0.25)			(0.06)	
*I_FIRM*3yALPHA+*LOW EQ*	γ_1			−0.162***			−0.232***			−0.161***
				(−2.79)			(−4.12)			(−2.72)
*I_FIRM*3yALPHA+*HIGH EQ*	γ_2			−0.142**			−0.147***			−0.145***
				(−2.53)			(−2.77)			(−2.80)
*I_FIRM*3yALPHA−*LOW EQ*	γ_3			−0.085			−0.183***			−0.102**
				(−1.49)			(−4.01)			(−2.12)
*I_FIRM*3yALPHA−*HIGH EQ*	γ_4			−0.065			−0.069			−0.055
				(−1.37)			(−1.47)			(−1.00)
3yALPHA+				0.072			0.073			0.083
				(0.44)			(0.45)			(0.53)
LOW EQ		−0.111	−0.107	−0.117	−0.126	−0.133	−0.127	−0.081	−0.091	−0.098
		(−0.71)	(−0.69)	(−0.75)	(−0.77)	(−0.86)	(−0.78)	(−0.80)	(−0.96)	(−0.97)
I_INCOME		0.439***	0.429**	0.426**	0.444***	0.438***	0.432**	0.420**	0.407**	0.404**
		(2.60)	(2.52)	(2.50)	(2.66)	(2.60)	(2.56)	(2.38)	(2.29)	(2.27)
ROE		0.361**	0.343*	0.339*	0.350**	0.335**	0.332*	0.356*	0.346*	0.338*
		(2.11)	(1.94)	(1.89)	(2.15)	(1.97)	(1.94)	(1.89)	(1.78)	(1.73)
R&D-TO-SALES		1.895	1.866	1.754	1.749	1.714	1.612	1.446	1.355	1.254
		(1.46)	(1.47)	(1.38)	(1.33)	(1.36)	(1.27)	(1.02)	(0.98)	(0.92)
LN(1+FIRM SIZE)		−0.068**	−0.067**	−0.066**	−0.068**	−0.066**	−0.066**	−0.067*	−0.067*	−0.067*
		(−2.04)	(−2.05)	(−2.02)	(−2.02)	(−2.01)	(−2.02)	(−1.89)	(−1.93)	(−1.91)
LN(1+FIRM AGE)		−0.101***	−0.100***	−0.098***	−0.099***	−0.098***	−0.097***	−0.099***	−0.098***	−0.097***
		(−3.32)	(−3.28)	(−3.26)	(−3.22)	(−3.18)	(−3.17)	(−2.81)	(−2.73)	(−2.75)
LN(1+PRESS COVERAGE)		0.253***	0.253***	0.251***	0.257***	0.256***	0.255***	0.262***	0.261***	0.260***
		(4.67)	(4.73)	(4.62)	(4.74)	(4.77)	(4.68)	(4.66)	(4.72)	(4.62)
Dummy industry		YES	YES	YES	YES	YES	YES	YES	YES	YES
Dummy exchange segment		YES	YES	YES	YES	YES	YES	YES	YES	YES
Dummy year		YES	YES	YES	YES	YES	YES	YES	YES	YES
Number of observations		1229	1229	1229	1229	1229	1229	1145	1145	1145
R^2 – adjusted		0.430	0.428	0.431	0.430	0.429	0.432	0.427	0.427	0.430

This table reports the results of the multivariate analysis of relations between *LN(MARKET-TO-BOOK)* and *I_FIRM* controlling for firm over-performance and EQ. The sample consists of 2240 observations on Italian nonfinancial firms traded on the MSE over the period 1999–2011. All variables are defined as in the appendix. t-statistics based on standard errors clustered by firm and year are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

effect of *I_FIRM* in *LOW EQ* firms with positive *ALPHA* in each of the next 3 years is about 12% higher than in *LOW EQ* firms over-performing in the prospective year only. When *EQ1 MARKET* or *EQ3 MARKET* are used for EQ, the differential effect for opaque firms rises up to 43% and 28%, respectively.

Table 4 reports results when discretionary accruals are used to proxy EQ: models 1–3 are with *EQ1 ACCOUNTING*, while models 4–6 use *EQ2 ACCOUNTING*.

When EQ is measured through *EQ2 ACCOUNTING*, results are generally comparable to the previous ones even though some differences can be detected. In fact, the relation between *I_FIRM* and *MARKET-TO-BOOK* is negative and statistically significant

Table 4
The Local Home Bias and the earnings quality using discretionary accruals.

Dependent variable		*LN(MARKET-TO-BOOK)*					
ACCOUNTING EQ proxy		*EQ1*			*EQ2*		
Independent variables		(1)	(2)	(3)	(4)	(5)	(6)
Constant		0.587	0.592	0.569	0.357	0.305	0.300
		(1.02)	(1.02)	(1.00)	(0.51)	(0.43)	(0.43)
*I_FIRM*1yALPHA⁺*LOW EQ*	γ_1	−0.104*			−0.159**		
		(−1.88)			(−2.31)		
*I_FIRM*1yALPHA⁺*HIGH EQ*	γ_2	−0.084			−0.066		
		(−1.37)			(−1.11)		
*I_FIRM*1yALPHA⁻*LOW EQ*	γ_3	−0.096			−0.135**		
		(−1.42)			(−2.49)		
*I_FIRM*1yALPHA⁻*HIGH EQ*	γ_4	−0.088			−0.071		
		(−1.52)			(−1.14)		
1yALPHA⁺		−0.111			−0.116		
		(−0.85)			(−0.65)		
*I_FIRM*2yALPHA⁺*LOW EQ*	γ_1		−0.109*			−0.167***	
			(−1.76)			(−2.87)	
*I_FIRM*2yALPHA⁺*HIGH EQ*	γ_2		−0.076			−0.071	
			(−1.17)			(−1.09)	
*I_FIRM*2yALPHA⁻*LOW EQ*	γ_3		−0.075			−0.126**	
			(−1.16)			(−2.04)	
*I_FIRM*2yALPHA⁻*HIGH EQ*	γ_4		−0.086			−0.070	
			(−1.48)			(−1.16)	
2yALPHA⁺			−0.170			−0.125	
			(−1.09)			(−0.56)	
*I_FIRM*3yALPHA⁺*LOW EQ*	γ_1			−0.107			−0.178***
				(−1.53)			(−2.85)
*I_FIRM*3yALPHA⁺*HIGH EQ*	γ_2			−0.110			−0.110*
				(−1.62)			(−1.73)
*I_FIRM*3yALPHA⁻*LOW EQ*	γ_3			−0.094			−0.153***
				(−1.52)			(−2.84)
*I_FIRM*3yALPHA⁻*HIGH EQ*	γ_4			−0.075			−0.059
				(−1.29)			(−0.98)
3yALPHA⁺				−0.039			−0.013
				(−0.22)			(−0.05)
LOW EQ		−0.022	−0.022	−0.026	−0.110	−0.101	−0.104
		(−0.22)	(−0.22)	(−0.26)	(−1.14)	(−1.00)	(−1.09)
I_INCOME		0.316*	0.301	0.295	0.385**	0.382**	0.372**
		(1.72)	(1.63)	(1.58)	(2.08)	(2.08)	(1.99)
ROE		0.196	0.188	0.176	0.169	0.163	0.146
		(1.04)	(0.97)	(0.90)	(0.88)	(0.85)	(0.76)
R&D-TO-SALES		1.729	1.704	1.613	2.083	2.093	2.029
		(1.06)	(1.10)	(1.04)	(1.20)	(1.24)	(1.19)
LN(1+FIRM SIZE)		−0.070*	−0.069*	−0.070*	−0.070	−0.065	−0.068
		(−1.74)	(−1.71)	(−1.73)	(−1.53)	(−1.37)	(−1.49)
LN(1+FIRM AGE)		−0.076**	−0.074**	−0.075**	−0.079**	−0.079**	−0.079**
		(−2.07)	(−2.00)	(−1.97)	(−2.41)	(−2.37)	(−2.32)
LN(1+PRESS COVERAGE)		0.243***	0.246***	0.244***	0.272***	0.270***	0.271***
		(3.65)	(3.70)	(3.60)	(3.58)	(3.57)	(3.54)
Dummy industry		YES	YES	YES	YES	YES	YES
Dummy exchange segment		YES	YES	YES	YES	YES	YES
Dummy year		YES	YES	YES	YES	YES	YES
Number of observations		725	725	725	565	565	565
R^2 – adjusted		0.419	0.42	0.417	0.42	0.421	0.421

This table reports the results of the multivariate analysis of relations between *LN(MARKET-TO-BOOK)* and *I_FIRM* controlling for firm over-performance and EQ. The sample consists of 2240 observations on Italian nonfinancial firms traded on the MSE over the period 1999–2011. All variables are defined as in the appendix. t-statistics based on standard errors clustered by firm and year are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

in *LOW EQ* firms. Yet, this relation is almost never significant when *HIGH EQ* firms are considered. Most importantly, the effect of *I_FIRM* is still higher in *LOW EQ* than in *HIGH EQ* firms (e.g., model 6, $3yALPHA^+ = 1$: $\gamma_1 = -0.178$, p-value < 0.01; $\gamma_2 = -0.110$, p-value < 0.10; $F\text{-Test}_{\gamma_1 = \gamma_2} = 3.61$, p-value < 0.05; $3yALPHA^- = 1$: $\gamma_3 = -0.153$, p-value < 0.01; $\gamma_4 = -0.059$, p-value > 0.10; $F\text{-Test}_{\gamma_3 = \gamma_4} = 9.08$, p-value < 0.01), and the magnitude of the effect increases with firm future performance. On the other hand, when EQ is measured through *EQ1 ACCOUNTING*, the relation between *I_FIRM* and *MARKET-TO-BOOK* is almost never significant.

Previous findings suggest that the firm EQ affects investor preference for local stocks: poor disclosure increases the value of the information available just locally, which local investors exploit by investing in stocks with positive future risk-adjusted performance. Economically, a measure of the value of the information locally available and not conveyed to the market through the accounting disclosure can be inferred by considering the average sampled over-performing and opaque firm, for which *MARKET-TO-BOOK* is 1.65, *I_FIRM* is 3.09, *3yALPHA*$^{+}$ is 1 and *LOW EQ* is 1. When EQ is measured by *EQ2 MARKET* our findings imply that, all other things being equal, 1.24 of *MARKET-TO-BOOK* is attributable to *I_FIRM*. The same estimate for the average sampled over-performing but non-opaque firm (*HIGH EQ* = 1) is about 0.95, meaning that the *MARKET-TO-BOOK* of opaque and isolated firms is up to 29% higher than the *MARKET-TO-BOOK* of isolated firms with full information disclosure. This difference in value is entirely attributable to the information that is only available to and therefore exploited by local investors.

5. Conclusions

The investor preference for local stocks provides a quasi-experimental setting to test whether the market rewards firms that comply with accounting principles. The Local Home Bias disentangles local from non-local investors and isolates the locally available information from the publicly available information. Research acknowledges that superior information at a local level drives the over-investment in local equity, which in turn boosts corporate market values in isolated firms. We argue that the value of the information available locally drops with the firm earnings quality (i.e., with the disclosure of accounting information). In fact, the lower the firm earnings quality, the higher the advantage to local investors who then invest in local stocks with positive future risk-adjusted performance.

Consistent with our conjecture, we find that the more a firm is isolated from the other listed firms, the more the over-performing firm trades at a premium compared to the under-performing firm, and this effect becomes stronger as the over-performance period increases. Furthermore, we find the higher the firm isolation, the more a low earnings quality firm trades at a premium compared to a high earnings quality firm. We employ several different market- and accounting-based measures to proxy for the firm earnings quality, such as residual return negative skewness, negative return jumps, idiosyncratic risk, and persistency of discretionary accruals. In all cases, the pattern is unchanged meaning that local investors effectively exploit the information available at the local level. Remarkably, the value of information not conveyed to the market through the accounting disclosure is approximately 30% of the market-to-book.

Our empirical findings add to the earnings quality, asset-pricing, and Local Home Bias literature. More importantly, the financial and accounting research is enriched by results on the relation between the quality of reporting and capital market consequences. In fact, we show that compliance with accounting principles matters. Unlike prior studies supporting the existence of a positive relation (e.g., Francis et al., 2005) or the lack of a relation (e.g., Core et al., 2008) between accruals quality and corporate market value, we consider the local perspective and find a negative relation between earnings quality and investor trading pattern. Overall, our results depict investors as a group which is heterogeneous in evaluating a firm's earnings quality: while non-local investors are sensitive to the quality of the accounting information, local and better-informed investors are not. Local investors seek firms with partial disclosure in order to exploit the superior information they possess by investing in positive alphas' local stocks, and the firm earnings quality defines the value of the information advantage local investors have over the rest of the market. We also contribute to the Local Home Bias literature by showing that the bias of investors to invest locally is leveraged by the firm opacity. Our findings are consistent with recent studies highlighting the increase of investors' biases and their preference for local equity during periods of higher uncertainty at market-level (e.g., Kumar, 2009). We add to this literature and test this issue considering a different perspective: uncertainty defined at firm-level rather than at market-level. Ultimately, our results support and help detect the persistence of investors' biases also in periods with less market uncertainty, especially toward firms not compliant with general accounting principles. Finally, our findings also provide an original point of view to the literature addressing the value of firm disclosure as a signal of firm quality (e.g., Al Jifri and Citron, 2009). In fact, we suggest firms might voluntarily choose not to improve reporting quality due to local investor recognition of their fair value and the value enhancing Local Home Bias effect. We believe there is ample room for future research.

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Appendix

Table A.1.

Table A.1
Variable definitions.

Variable	Description
1y(2y)(3y)ALPHA⁺_D	Equal to one if the firm has a positive *ALPHA* in the next (two)(three) year(s) and zero otherwise
1y(2y)(3y)ALPHA⁻_D	Equal to one if the firm has a negative *ALPHA* in the next (two)(three) year(s) and zero otherwise
ADJ-R2	The adjusted R^2 computed from the *ALPHA* equation
ALPHA	Jensen's alpha (Jensen, 1968), computed from an expanded index model regression and upon a minimum of 6 months of weekly observations. Formally, we estimate the following equation for ALPHA $R_{i,w,t} = \alpha_i + \beta_{1,i} * R_{m,w-1,t} + \beta_{2,i} * R_{j,w-1,t} + \beta_{3,i} * R_{m,w,t} + \beta_{4,i} * R_{j,w,t} + \beta_{5,i} * R_{m,w+1,t} + \beta_{6,i} * R_{j,w+1,t} + \varepsilon_{i,w,t}$ where: $R_{i,w,t}$ is the stock return of firm *i* at week *w* in year *t*, α_i is Jensen's alpha, $R_{m,w,t}$ ($R_{m,w-1,t}$) ($R_{m,w+1,t}$) is the market index return at week *w* (*w* – 1) (*w*+1) in year *t*, $R_{j,w,t}$ ($R_{j,w-1,t}$) ($R_{j,w+1,t}$) is the Fama and French value-weighted industry index at week *w* (*w* – 1) (*w*+1) in year *t*, and $\varepsilon_{i,w,t}$ is the error term for $R_{i,w,t}$ Source: Datastream (datatype: RI)
ALPHA⁺_D	Equal to one if the firm has a positive *ALPHA* and zero otherwise
ALPHA⁻_D	Equal to one if the firm has a negative *ALPHA* and zero otherwise
COUNT001	The difference of downside frequencies and upside frequencies of the firm-specific weekly residual returns exceeding k standard deviations above and below the mean, with k chosen to generate frequencies of 0.01% in the normal distribution
DISCACC	The value of discretionary accruals (deflated by lagged total assets). *DISCACC* is a performance-adjusted current accruals measure based on the method used in Dechow et al., (1995). It is computed as: $DISCACC_{i,t} = TA_{i,t}/Total\,Assets_{i,t-1} - NTA_{i,t}$ where: $TA_{i,t}$ is the value of total accruals of the firm *i* in year *t*. $TA_{i,t}$ is given by: $TA_{i,t}$ = Net Income $_{i,t}$ - Net Operating Cash Flow $_{i,t}$ where: Net Income is the net income before extraordinary items and preferred dividends (datatype: WC01551), Net Operating Cash Flow is the cash flow from operating activities adjusted for extraordinary items and discontinued operations (datatype: WC04860), Total Assets are total assets (datatype: WC02999). $NTA_{i,t}$ is the value of normal total current accruals of the firm *i* in year *t*. It has been estimated in two steps. At first, we estimate the following cross-sectional regression model for each of the *INDUSTRY*-year combinations on available data (upon a minimum of 30 firm-year observations): $TA_{i,t}/Total\,Assets_{i,t-1} = \alpha_0 * (1/Total\,Assets_{i,t-1}) + \beta_1 * (\Delta Net\,Sales_{i,t}/Total\,Assets_{i,t-1}) + \beta_2 * PPE_{i,t-1}/Total\,Assets_{i,t-1}) + \varepsilon_{i,t}$ where: Net Sales are *SALES*, *PPE* is the Gross Property, Plant and Equipment. It is computed by: Net Property, Plant and Equipment (WC02501) less Depreciation, Depletion, and Amortization (WC01151). Afterwards, using parameter estimates a_0, b_1, and b_2 from the previous equation, $NTA_{i,t}$ are computed as follows: $NTA_{i,t}/Total\,Assets_{i,t-1} = a_0 * (1/Total\,Assets_{i,t-1}) + b_1 * ((\Delta Net\,Sales_{i,t} - \Delta AR_{i,t})/Total\,Assets_{i,t-1}) + b_2 * (PPE_{i,t-1}/Total\,Assets_{i,t-1})$ where: ΔAR denotes the change in accounts receivables. Source: Worldscope. Datatype in parenthesis
DISCACC_ABS	The absolute value of *DISCACC*
DISCACC_ABS_MS3y	The 3 years moving sum of *DISCACC_ABS*
DISPOSABLE INCOME	The household disposable income. It is computed as follows: *DISPOSABLE INCOME* = Primary Income − Current Taxes − Social Contributions + Social Benefits + Other Net Transfers where: Primary Income = Gross Operating Surplus + Gross Mixed Income + Income from Employment + Financial Income (Equity Income + Non-Equity Income).
Source: ISTAT	
DISTANCE	The shortest spherical distance between two points on the Earth's surface in kilometers. Formally, let (θ_s, λ_s) and (θ_f, λ_f) be the geographical latitude and longitude of two points, a base standpoint S and the destination fore point F respectively. The *DISTANCE* $d_{s,f}$ between S and F is computed as: $d_{s,f} = arc\cos\{\cos(lon_s - lon_f) * \cos(lat_s) * \cos(lat_f) + \sin(lat_s) * \sin(lat_f)\} * 2\pi r/360$ where: r is the radius of the earth (≈ 6378 km)
EQUITY BOOK VALUE	Book value of common equity. Source: Worldscope (datatype: WC03501)
EQUITY MARKET VALUE	Market value of common equity. Source: Worldscope (datatype: WC08001)
FIRM AGE	The number of years of a firm's life since foundation. Source: Il Calepino dell'Azionista
FIRM SIZE	Total asset. Source: Worldscope (datatype: WC02999)
HighEQ_D	Equal to one if the firm EQ is below the cross-sectional median and zero otherwise
I	The Johnson and Zimmer index of dispersion. Formally, given the two-dimensional Euclidean space E^2, let the generic point *i* and a sample of *r* random points in E^2, all individuated by the latitude and longitude geographical coordinates, the Johnson and Zimmer dispersion index I for the point *i* is computed as: $I = \frac{(r+1) \sum_{r=1\ \&\ r\neq i}^{r} (d_{i,r}^4)}{\left[\sum_{r=1\ \&\ r\neq i}^{r} (d_{i,r}^2)\right]^2}$ where: $d_{i,r}$ is the *DISTANCE* between the point *i* and each of the *r*-points.

(*continued on next page*)

Table A.1 (*continued*)

Variable	Description
	The expected value of I has a value approaching two for a random distribution, lower than two for scattered distribution and higher than two for an aggregated distribution. In the weighted version of I, $d_{i,r}$ in the numerator has to be multiplied by ${w_{i,r}}^2$, while $d_{i,r}$ in the denominator is multiplied by $w_{i,r}$, where: $w_{i,r}$ is the weight of $d_{i,r}$
I_FIRM	The yearly Johnson and Zimmer dispersion index computed on the geographical locations (i.e., latitude and longitude) of the issuing firm headquarters and the headquarters of all other sampled listed firms
I_INCOME	The yearly weighted Johnson and Zimmer dispersion index computed on geographical locations (i.e., latitude and longitude) of the issuing firm headquarters and all provincial capital cities, with weights equal to the normalized provincial per capita *DISPOSABLE INCOME*
IDIOSYN	The idiosyncratic risk or firm-specific volatility as defined by the logistic transformation of R^2. It is computed as follows: $IDIOSYN = ln(\frac{1-R^2}{R^2})$ where R^2s are calculated from the *ALPHA* equation
INDUSTRY	Industry SIC Code (datatype: WC07024 and FTAG4)
LowEQ_D	Equal to one if the firm EQ is above the cross-sectional median and zero otherwise
MARKET-TO-BOOK	The ratio of *EQUITY MARKET VALUE* to *EQUITY BOOK VALUE*
NCSKEW	The negative *RESIDUAL SKEWNESS* divided by the cubed *RESIDUAL STANDARD DEVIATION*
PRESS COVERAGE	The yearly number of newspaper articles concerning the corresponding firm. Source: Il Sole 24 Ore
R2	The R^2 computed from the *ALPHA* equation
R&D	Research and development expense. Source: Worldscope (datatype: WC01201)
R&D_D	Equal to one if the firm does not report R&D and zero otherwise
R&D TO SALES	The ratio of *R&D* to *SALES*
REDCA	The value of discretionary accruals (deflated by lagged total assets). REDCA is a performance-adjusted current accruals measure based on the method used in Ashbaugh et al., (2003). It is computed as: $REDCA_{i,t} = TCA_{i,t} - EPTCA_{i,t}$ where: $TCA_{i,t}$ is the value of total current accruals of the firm *i* in year *t*. $TCA_{i,t}$ is given by: $TCA_{i,t} = \Delta(Current\ Assets)_{i,t}/Total\ Assets_{i,t-1} - \Delta(Current\ Liabilities)_{i,t}/Total\ Assets_{i,t-1} - \Delta(Cash)_{i,t}/Total\ Assets_{i,t-1} + \Delta(Short\ Term\ and\ Current\ Long\ Term\ Debt)_{i,t}/Total\ Assets_{i,t-1}$ where: Δ is the first difference (with respect to time) operator, Current Assets is the sum of cash and equivalents, receivables, inventories, prepaid expenses and other current assets (datatype: WC02201). Current Liabilities represents debt or other obligations that the company expects to satisfy within one year (datatype: WC03101). Cash represents the sum of cash and short-term investments (datatype: WC02001). Short Term and Current Long Term Debt represents that portion of financial debt payable within one year including current portion of long-term debt and sinking fund requirements of preferred stock or debentures (datatype: WC03051). Total Assets are total assets (datatype: WC02999). $EPTCA_{i,t}$ is the value of expected performance-adjusted (*ROA*) total current accruals of the firm *i* in year *t*. It has been estimated in two steps. At first, we estimate the following cross-sectional regression model for each of the *INDUSTRY*-year combinations on available data (upon a minimum of 30 firm-year observations): $TCA_{i,t} = \beta_1 * (1/Total\ Assets_{i,t-1}) + \beta_2 * (\Delta Net\ Sales_{i,t}/Total\ Assets_{i,t-1}) + \beta_3 * ROA_{i,t-1} + \beta_4 * Inflation_{i,t-1} + \beta_5 * GDPgrowth_{i,t-1} + \varepsilon_{i,t}$ where: Net Sales are *SALES* *ROA* is computed as operating income after taxes (datatype: WC08326) relative to Total Assets Afterwards, using parameter estimates b_1-b_5 from the previous equation, $EPTCA_{i,t}$ is computed as follows: $EPTCA_{i,t} = b_1 * (1/Total\ Assets_{i,t-1}) + b_2 * (\Delta Net\ Sales_{i,t} - \Delta AR_{i,t})/Total\ Assets_{i,t} + b_3 * ROA_{i,t-1} + b_4 * Inflation_{i,t-1} + b_5 * GDPgrowth_{i,t-1}$ where: ΔAR denotes the change in accounts receivables. Source: Worldscope. Datatype in parentheses
REDCA_3(5)(7)y	The moving 3(5)(7) years standard deviation of *REDCA*
RESIDUAL RETURN	The weekly residual return computed as the $\varepsilon_{i,w,t}$ of the *ALPHA* equation
RESIDUAL SKEWNESS	The yearly skewness of *RESIDUAL RETURN*
RESIDUAL STANDARD DEVIATION	The yearly standard deviation of *RESIDUAL RETURN*
ROE	The ratio of the firm net profit income to the *EQUITY BOOK VALUE*. Source: Datastream (datatype: DWRE)
SALES	Net sales or revenues. Source: Worldscope (datatype: WC01001)

References

Aabo, T., Pantzalis, C., Sørensen, M.S., 2013. Game hoarding in Europe: stock-price consequences of local bias? Eur. J. Financ. 19, 318–335.

Al Jifri, K., Citron, D., 2009. The value-relevance of financial statement recognition versus note disclosure: evidence from goodwill accounting. Eur. Account. Rev. 18, 123–140.

Arnold, P.J., 2009. Global financial crisis: the challenge to accounting research. Account. Org. Soc. 34, 803–809.

Ashbaugh, H., LaFond, R., Mayhew, B.W., 2003. Do nonaudit services compromise auditor independence? Further evidence. Account. Rev. 78, 611–639.

Bagella, M., Becchetti, L., Carpentieri, A., 2000. 'The first shall be last'. Size and value strategy premia at the London Stock Exchange. J. Bank. Financ. 24, 893–919.
Barth, M.E., Landsman, W.R., 2011. How did financial reporting contribute to the financial crisis? Eur. Account. Rev. 19, 399–423.
Baschieri, G., Carosi, A., Mengoli, S., 2015. Local IPOs, local delistings, and the firm location premium. J. Bank. Financ. 53, 67–83.
Bertinetti, G.S., Mantovani, G.M., 2012. The information risk in the latest crisis: a driver or a driven factor for global financial markets equilibrium? J. Mod. Account. Auditing 8, 702–732.
Bigelli, M., Mengoli, S., 2011. Self-expropriation versus self-interest in dual-class voting: The pirelli case study. Financ. Manage. 40, 677–699.
Bhattacharya, U., Daouk, H., Welker, M., 2003. The world price of earnings opacity. Account. Rev. 78, 641–678.
Birz, G., Lott Jr., J.R., 2011. The effect of macroeconomic news on stock returns: new evidence from newspaper coverage. J. Bank. Financ. 35, 2791–2800.
Chaney, P.K., Faccio, M., Parsley, D., 2011. The quality of accounting information in politically connected firms. J. Account. Econ. 51, 58–76.
Chan, K., Chan, L.K.C., Jegadeesh, N., Lakonishok, J., 2006. Earnings quality and stock returns. J. Bus. 79, 1041–1082.
Chan, L.K.C., Lakonishok, J., Sougiannis, T., 2001. The stock market valuation of research and development expenditures. J. Financ. 56, 2431–2456.
Chen, J., Hong, H., Stein, J.C., 2001. Forecasting crashes: trading volume, past returns, and conditional skewness in stock prices. J. Financ. Econ. 61, 345–381.
Christensen, P.O., Frimor, H., Şabac, F., 2013. The stewardship role of analyst forecasts, and discretionary versus non-discretionary accruals. Eur. Account. Rev. 22, 257–296.
Chung, H., Sheu, H.-J., Wang, J.-L., 2009. Do firms' earnings management practices affect their equity liquidity? Financ. Res. Lett. 6, 152–158.
Core, J.E., Guay, W.R., Verdi, R., 2008. Is accruals quality a priced risk factor? J. Account. Econ. 46, 2–22.
Coval, J.D., Moskowitz, T.J., 1999. Home bias at home: local equity preference in domestic portfolios. J. Financ. 54, 2045–2073.
Coval, J.D., Moskowitz, T.J., 2001. The geography of investment: informed trading and asset prices. J. Polit. Econ. 109, 811–841.
Cumming, D., Dai, N., 2010. Local bias in venture capital investments. J. Empir. Financ. 17, 362–380.
Cumming, D., Johan, S.A., 2006. Provincial preferences in private equity. Financ. Markets Portfolio Manage. 20, 369–398.
Cumming, D., Zambelli, S., 2013. Private equity performance under extreme regulation. J. Bank. Financ. 37, 1508–1523.
Daniel, K.D., Hirshleifer, D., Subrahmanyam, A., 1998. Investor psychology and security market under- and overreactions. J. Financ. 53, 1839–1885.
Daniel, K.D., Hirshleifer, D., Subrahmanyam, A., 2001. Overconfidence, arbitrage, and equilibrium asset pricing. J. Financ. 56, 921–965.
Dechow, P.M., Ge, W., Schrand, C., 2010. Understanding earnings quality: a review of the proxies, their determinants and their consequences. J. Account. Econ. 50, 344–401.
Dechow, P.M., Sloan, R.G., Sweeney, A.P., 1995. Detecting earnings management. Account. Rev. 70, 193–225.
Ecker, F., Francis, J., Olsson, P., Schipper, K., 2013. Estimation sample selection for discretionary accruals models. J. Account. Econ. 56, 190–211.
Francis, J., LaFond, R., Olsson, P., Schipper, K., 2005. The market pricing of accruals quality. J. Account. Econ. 39, 295–327.
Grinblatt, M., Keloharju, M., 2001. How distance, language, and culture influence stockholdings and trades. J. Financ. 56, 1053–1073.
Hall, B.H., Oriani, R., 2006. Does the market value R&D investment by European firms? Evidence from a panel of manufacturing firms in France, Germany, and Italy. Int. J. Ind. Organ. 24, 971–993.
Hirshleifer, D., 2001. Investor psychology and asset pricing. J. Financ. 56, 1533–1597.
Hong, H., Kubik, J.D., Stein, J.C., 2008. The only game in town: stock-price consequences of local bias. J. Financ. Econ. 90, 20–37.
Huang, A.Y., Cheng, C.-M., 2013. Information risk and credit contagion. Financ. Res. Lett. 10, 116–123.
Huberman, G., 2001. Familiarity breeds investment. Rev. Financ. Stud. 14, 659–680.
Hutton, A.P., Marcus, A.J., Tehranian, H., 2009. Opaque financial reports, R^2, and crash risk. J. Financ. Econ. 94, 67–86.
Ivković, Z., Weisbenner, S., 2005. Local does as local is: Information content of the geography of individual investors' common stock investments. J. Financ. 60, 267–306.
Jensen, M.C., 1968. The performance of mutual funds in the period 1945-1964. J. Financ. 23, 389–416.
Jin, L., Myers, S.C., 2006. R^2 around the world: new theory and new tests. J. Financ. Econ. 79, 257–592.
Johnson, R.B., Zimmer, W.J., 1985. A more powerful test for dispersion using distance measurements. Ecology 66, 1669–1675.
Keloharju, M., Kulp, K., 1996. Market-to-book ratios, equity retention, and management ownership in Finnish initial public offerings. J. Bank. Financ. 20, 1583–1599.
Korniotis, G.M., Kumar, A., 2013a. Do portfolio distortions reflect superior information or psychological biases? J. Financ. Quant. Anal. 48, 1–45.
Korniotis, G.M., Kumar, A., 2013b. State-level business cycles and local return predictability. J. Financ. 68, 1037–1096.
Kothari, S.P., 2001. Capital markets research in accounting. J. Account. Econ. 31, 105–231.
Kumar, A., 2009. Hard-to-value stocks, behavioral biases, and informed trading. J. Financ. Quant. Anal. 44, 1375–1401.
Lahr, H., 2014. An improved test for earnings management using kernel density estimation. Eur. Account. Rev. 23, 559–591.
Leuz, C., Nanda, D., Wysocki, P.D., 2003. Earnings management and investor protection: an international comparison. J. Financ. Econ. 69, 505–527.
Lev, B., 1989. On the usefulness of earnings and earnings research: lessons and directions from two decades of empirical research. J. Account. Res. 27, 153–192.
Lev, B., 2003. Corporate earnings: facts and fiction. J. Econ. Perspect. 17, 27–50.
Levis, M., Muradoglu, Y.G., Vasileva, K., 2015. Home bias persistence in foreign direct investments. Eur. J. Financ. 22 (8–9), 782–802.
Mengoli, S., Pazzaglia, F., Sapienza, E., 2009. Effect of governance reforms on corporate ownership in Italy: Is it still pizza, spaghetti, and mandolino? Corp. Gov. 17, 629–645.
Morck, R., Yeung, B., Yu, W., 2000. The information content of stock markets: why do emerging markets have synchronous stock price movements? J. Financ. Econ. 58, 215–260.
Morricone, S., Oriani, R., Sobrero, M., 2009. The value relevance of intangible assets and the mandatory adoption of IFRS. SSRN working paper.
Pazzaglia, F., Mengoli, S., Sapienza, E., 2013. Earnings quality in acquired and nonacquired family firms: A socioemotional wealth perspective. Fam. Bus. Rev. 26, 374–386.
Petersen, M.A., 2009. Estimating standard errors in finance panel data sets: Comparing approaches. Rev. Financ. Stud. 22, 435–480.
Prencipe, A., 2004. Proprietary costs and determinants of voluntary segment disclosure: evidence from Italian listed companies. Eur. Account. Rev. 13, 319–340.
Shan, L., Gong, S.X., 2012. Investor sentiment and stock returns: Wenchuan earthquake. Financ. Res. Lett. 9, 36–47.
Van Dijk, M.A., 2011. Is size dead? A review of the size effect in equity returns. J. Bank. Financ. 35, 3263–3274.