Financial Statement Comparability and the Ability of Stock Return to Reflect Future Earnings

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Abstract

We examine whether financial statement comparability affects the ability of stock returns to reflect future earnings (i.e., future earnings response coefficient or FERC). We document that FERCs are greater for firms that are more comparable with their industry peers as comparability enables investors to better interpret financial information with lower costs and thus better anticipate future firm performance. We also find that the role of comparability in the incorporation of future earnings is primarily driven by firm-specific earnings rather than market/industry-level earnings. Our additional synchronicity analyses support that comparability is associated with more firm-specific information reflected in stock prices.

Keywords: comparability, future earnings response coefficient (FERC), firm-specific earnings, stock price synchronicity.

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I. INTRODUCTION

If we define the accounting system as a mapping from underlying economic events to financial statements, two firms have comparable accounting systems if they produce similar financial statements (e.g., earnings) for a given set of economic events (e.g., stock returns) (De Franco et al. 2011; Barth et al. 2012; Kim et al. 2012). Comparable financial statements help information users to interpret financial statement information at lower costs by enabling them to identify similarities and differences among firm's economic events (Financial Accounting Standards Board, FASB, 1980, 2010). In particular, the key role of comparability is to facilitate the efficient allocation of capital, as emphasized by FASB (1980) and Securities Exchange Commission (2000).

This paper examines whether financial statement comparability (hereafter comparability) affects stock price informativeness. More specifically, we examine two predictions in this study: First, does comparability affect the ability of stock returns to reflect future earnings? Second, to what extent does comparability help investors to predict the two components of future earnings: market/industry-level earnings and firm-specific earnings?

Current stock returns reflect the market's expectation of future firm performance (Collins et al. 1994; Haw et al. 2012). Prior studies (e.g., Gelb and Zarowin 2002; Lundholm and Myers 2002; Orpurt and Zang 2009; Choi et al. 2011, Haw et al. 2012, among others) suggest that high quality disclosure helps investors to better predict future firm performance by "bringing

the future forward" (Lundholm and Myers 2002). The more stock returns anticipate future earnings realization, the more informative stock prices are. The relation between current stock returns and future earnings is conveniently called the future earnings response coefficient (FERC) and is widely used as a measure of the informativeness of stock price in the literature (e.g., Durnev et al. 2003; Ferreira and Laux 2007; Fernandes and Ferreira 2009; Haw et al. 2012). We expect that comparability is positively related to the magnitude of FERC as comparability lowers the cost of acquiring and processing information (De Franco et al. 2011), and thus comparability increases the overall quantity and quality of information available to equity investors about the firm.

We then examine the channel through which comparability affects the ability of stock returns to anticipate future earnings. More specifically, we examine whether comparability facilitates the reflection of market/industry-level earnings and firm-specific earnings into stock returns. Market- and industry-level earnings imply the portion of earnings that are shared by all firms belonging to the market or industry. In contrast, firm-specific earnings are the portion of the earnings of a specific firm that is unexplained by market- and industry-level earnings (Ayers and Freeman 1997). This distinction between market/industry-level earnings and firm-specific earnings is important because they have different implications for investors' ability to make capital allocation decisions. If the relation between comparability and FERC is primarily driven by its role to reflect market- and industry-level information, this role of comparability should be of less interest to investors because it provides fewer benefits in evaluating alternative opportunities and selecting an individual stock (FASB 1980).

Based on measures of comparability by De Franco et al. (2011), we examine abovementioned predictions using 23,551 firm-year observations collected over 1992-2008. We

find that FERCs are greater for firms that are more comparable with their industry peers, supporting the role of comparability in enhancing stock price informativeness about future earnings. We also find that the magnitude of current return to reflect current earnings (i.e., earnings response coefficient or ERC) increases with comparability. Next, we find that the relation between FERC and comparability is mainly driven by its role in reflecting firm-specific earnings rather than market/industry-level earnings. This finding indicates that comparability accelerates the incorporation of firm-specific component of future earnings news in current stock prices. To provide further evidence on the role of comparability in enhancing stock price informativeness by influencing the relative amount of market/industry-level and firm-specific information reflected in stock prices, we examine the relation between comparability and stock price synchronicity. Stock price synchronicity measures the relative amount of market- and industry-level information versus firm-specific information, which is reflected in firm-level stock returns (Morck et al. 2000; Durnev et al. 2003; Piotroski and Roulstone 2004). We find that comparability is negatively associated with stock price synchronicity, consistent with comparability increasing the relative amount of firm-specific information reflected in stock prices and thus improving the informativeness of stock prices. Interestingly, we find that analysts are important channel through which comparability influences synchronicity, consistent with low information cost encouraging analysts to produce firm-specific information (Crawford et al. 2012). We also find that changes in comparability are negatively associated with changes in stock price synchronicity, strongly corroborating our argument that high comparability is related to more firm-specific information. Taken together, our empirical results are consistent with comparability enhancing stock price informativeness.

This study contributes to accounting research and other information users in various

aspects. First, this study contributes to the literature on ERC and FERC by identifying one of the factors that influence the ability of stock market to reflect current and future earnings. While prior studies show that a firm's FERC increases with quality and quantity of the firm's disclosures (e.g., Gelb and Zarowin 2002; Lundholm and Myers 2002; Ettredge et al. 2005; Choi et al. 2011), our study demonstrates that the ability of stock market to reflect future earnings also depends on the extent to which information of the firm can be compared with that of other firms. It indicates that even information of similar levels of quality and quantity can result in different levels of FERC, depending on the firm's comparability with its peers.

Second, this study contributes to the growing literature on the benefits of comparability. Although several studies shed light on the benefits of comparability in various settings (e.g., Bradshaw et al. 2009; De Franco et al. 2011; Chen et al. 2012; X. Fang et al. 2012; Kim et al. 2012), this is the first study that directly links the ability of stock returns to predict future firm performance and comparability, providing empirical support that greater comparability benefits stock investors. In particular, the use of FERC allows us to measure the relation between prices and future earnings directly, rather than relying on indirect proxies of future earnings such as analyst forecasts (Gelb and Zarowin 2002). In this respect, this study provides direct evidence supporting the FASB's (1980) assertion that comparability enhances the decision usefulness of accounting information.

Third, this study contributes to the discussion on the role of comparability in efficient capital allocation. Our finding that comparability accelerates the incorporation of firm-specific information should be of great economic significance to investors and regulators because greater firm-specific information leads to more informed stock pricings and, therefore, more efficient stock market (Durnev et al. 2003). Furthermore, our finding support the core usefulness of

comparability in the evaluations of alternative opportunities in investing and lending decisions (FASB 1980; DeFond et al. 2011; Kim et al. 2012). The findings help regulators to promote accounting policies that enhance the comparability of financial statements.

Finally, our finding that greater analyst coverage facilitates the interpretation and dissemination of firm-specific information for firms with high comparability contributes to the literature on the type of information that analysts produce (e.g., Piotroski and Roulstone 2004; Crawford et al. 2012). Thus, this study contributes to the extant literature on the analysts' earnings forecasts.

The remainder of this paper is organized as follows. Section II develops the research hypotheses. Section III presents the empirical models for hypothesis testing. Section IV describes the data sources and descriptive statistics. Section V reports the empirical results and robustness checks. Finally, Section VI sets forth the conclusions.

II. THEORY AND HYPOTHESES DEVELOPMENT

FASB (1980) notes that making financial comparisons among different enterprises is difficult due to different accounting methods accepted by them. Such diverse accounting method choices make it difficult for users to interpret information contained in financial statements and to evaluate alternative opportunities in their investment decisions (Bradshaw et al. 2009). Therefore, more comparable financial statements are beneficial to users as they lower the costs of gathering and interpreting information (De Franco et al. 2011).[1] Consistent with this view, the

[1] For example, in Statement of Financial Accounting Concepts No. 8, FASB (2010) describes comparability, verifiability, timeliness, and understandability as four qualitative characteristics that enhance the usefulness of accounting information. Especially, FASB (2010) states that financial statement users must be able to compare the financial statements of different entities to evaluate their relative financial status and performance.

growing literature documents the benefits of comparability in various settings. For example, several recent studies use International Financial Reporting Standards (IFRS) adoption as an event to improve comparability and document the benefits of comparability, such as enhancing analysts' information environment (Horton et al. 2012), improving liquidity and firm-specific information (Barth et al. 2013), increasing foreign fund ownership (DeFond et al. 2011) and the use of relative performance evaluations (Wu and Zhang 2011), decreasing the benefits of private information (Brochet et al. 2011), and transnational information transfer (Wang 2011). Using more specific firm-level measures of comparability, Bradshaw et al. (2009) and De Franco et al. (2011) find that financial analysts' earnings forecasts are more accurate and less dispersed for firms that are more comparable to their industry peers. Kim et al. (2012) and X. Fang et al. (2012) report that comparability also provides benefits to public debt markets and private loan markets, respectively.

In a study which is more closely related to the implications of comparability for efficient allocation of capital, Chen et al. (2012) document that acquirers make better acquisition decisions when target firms are more comparable with their industry peer firms. Campbell and Yeung (2012), from the view of equity investors, document that stock returns during its peer firm's restatement announcement period are negatively associated with accounting comparability, suggesting that investors can better understand the implications of the industry peer firm's restatement announcement for more comparable firms.

While these prior studies provide valuable insights into the benefits of comparability, no study to date directly examines the effect of comparability on stock price informativeness,[2]

[2] As explained previously, De Franco et al. (2011) document that financial analysts' earnings forecasts are more accurate and less dispersed for firms that are more comparable to their industry peers. The findings suggest that

which is a critical condition for efficient capital allocation (Durnev et al. 2003). We use the degree of future earnings reflected in current stock returns (i.e., FERC) as a main measure of stock price informativeness. As explained before, current stock price or returns reflects the market's expectation of future earnings (Collins et al. 1994; Gelb and Zarowin 2002; Haw et al. 2012). Prior studies (Gelb and Zarowin 2002; Lundholm and Myers 2002; Ettredge et al. 2005; Orpurt and Zang 2009; Choi et al. 2011, among others) suggest that high quality information or disclosure helps investors to better predict future firm performance (i.e., earnings), thereby allowing them to use the information on future firm performance in setting the current stock price. As a result, FERCs are expected to be higher for such firms.[3] Haw et al. (2012) specifically explain that the informativeness of stock prices about future earnings implies the extent to which value-relevant information about a firm's prospects is available to investors and is incorporated in stock prices.

Comparability can influence the magnitude of FERC in two channels. First, comparability expands the information set available to investors and thus lowers uncertainty in predicting future performance. Haw et al. (2012) argue that more information on the transactions

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stock investors benefit from more accurate and less dispersed analysts' earnings forecasts, which leads to more stock price informativeness indirectly. Our study is different from De Franco et al.'s study in that we examine the direct effect of comparability on the stock price informativeness after controlling for the indirect effect via analysts' forecasts by including analyst coverage in the regression model. We also find that FERCs are higher for more comparable firms even for firms that are now followed by analysts (N=6,015), suggesting a direct link between comparability and the stock price informativeness.

[3] Both Gelb and Zarowin (2002) and Lundholm and Myers (2002) show that expanded disclosure measured by the disclosure quality score issued by Association for Investment Management Research is positively associated with the magnitude of FERC. Similarly, Ettredge et al. (2005) find that the adoption of Statement of Financial Accounting Standards No. 131 on segment reporting increased FERCs due to expanded disclosure requirements. Orpurt and Zang (2009) find that FERCs are greater when firms prepare their cash flow statements using direct method (which provides more information to the financial statement users) than indirect method. Choi et al. (2011) report that firms issuing more informative management earnings forecasts have a greater FERC. Finally, Haw et al. (2012) report that firms from countries with greater disclosure and investor protection have higher FERC. In summary, these findings all suggest that more informative disclosures help investors to predict future earnings and to reflect them in setting the current stock price.

and judgments underlying a firm's current performance could facilitate investors' accurate prediction of future firm performance. We argue that investors can rely on comparable financial statements, which are prepared using homogeneous or similar accounting methods, estimates, and assumptions, to obtain more information on the transactions and judgments that managers use to prepare for the current financial statements (Campbell and Yeung 2012). Using comparable accounting information, investors are able to identify the similarities and differences among several firms belonging to the same industry, enabling them to make more meaningful comparisons among firms (Chen et al. 2012). As a result, the magnitude of FERC is higher for firms with greater comparability.

Second, comparability reduces the costs of acquiring and processing information. De Franco et al. (2011) argue that firm outsiders can acquire information from comparable firms with relatively lower costs. As a result, De Franco et al. (2011) expect that analysts exert relatively less efforts to understand and analyze the financial statements of firms with comparable peers. Relatedly, Kim et al. (2012) argue that comparability lowers information processing costs for bondholders, by making comparisons among industry peers easier. Thus, more comparable firms are likely to have greater FERCs.

In summary, to the extent that financial statement comparability helps investors to collect and evaluate financial information at lower costs and thus enables them to make more informed decision, we expect that FERCs are greater for firms with high comparability, implying that current stock returns better reflect future earnings for firms with high comparability. Based on this prediction, we propose our first hypothesis in an alternative form as follow:

H1: FERCs are greater for firms with high financial statement comparability.

A firm's stock price reflects firm-specific, market-, and industry-level information. Ayers

and Freeman (1997) decompose annual earnings innovations into firm-specific earnings and industry-level earnings and document that industry earnings are incorporated into stock prices earlier than firm-specific earnings. Their finding suggests that it is more difficult for stock market participants to anticipate the firm-specific component of earnings than the industry-level component because of high costs of gathering and processing firm-specific information. Piotroski and Roulstone (2004) find that analysts' activities increase the amount of industry-level information in stock prices, while insider and institutional trading activities accelerate the incorporation of firm-specific information with their access to private information. Their finding also supports that it is more difficult to predict firm-specific information than industry-level information.

With respect to the role of comparability in accelerating the reflection of these two components into stock prices, it is not clear which component is more critical. On the one hand, comparability is expected to be more related to industry information because comparability is defined in relation with other peer firms in the same industry, and thus it is supposed to help in extracting industry-related information. For example, an investor interested in a firm with high financial comparability can easily evaluate industry-level information by comparing the firm with other peer firms. In this sense, comparability facilitates intra-industry information transfers. Consistent with this view, Kim and Li (2010) find that improved comparability resulting from mandatory IFRS adoption increases intra-industry information transfers from earnings announcement. Campbell and Yeung (2012) also find that comparability is related to stock price reactions of non-restating firms to the restatement announcements of peer firms in the same industry. Furthermore, given that analysts are more specialized in interpreting market- and industry- level information (Piotroski and Roulstone 2004), the finding in De Franco et al. (2011)

of the positive relation between comparability and analysts' forecast accuracy and coverage can be interpreted as suggesting the role of comparability with respect to market and industry information.

In contrast, to the extent that comparability helps investors to make better comparisons across firms to extract firm-specific information (De Franco et al. 2011), it is expected that the effect of comparability in incorporating future performance into stock prices is stronger for firm-specific information. For example, Chen et al. (2012) find that acquirers make better acquisition decisions when target firms' financial statements exhibit greater comparability with industry peer firms. Their results provide evidence that comparability allows managers to make meaningful comparisons and thus to better assess the value of the target firms. Furthermore, Barth et al. (2013) find firms that voluntarily adopt IFRS are associated with low stock price synchronicity, suggesting that enhanced comparability from adopting IFRS voluntarily results in more firm-specific information.

Taken together, the question of whether comparability facilitates the incorporation of market/industry-level earnings or firm-specific earnings into stock prices is an empirical question. Based on the discussion, we formulate our second hypothesis in the null form as follow.

H2. The effect of comparability on stock prices' ability to anticipate future earnings is not different for firm-specific earnings and for market/industry-level earnings.

III. METHODOLOGY

3.1 Empirical measure of financial statement comparability

We follow De Franco et al. (2011) to measure financial statement comparability. De Franco et al. (2011) conceptually define comparability as follow: "Two firms have comparable

accounting systems, if, for a given set of economic events, they produce similar financial statements." To empirically measure this concept, De Franco et al. (2011) use stock returns as a measures for economic events and use earnings as the proxy for financial statement outcome. For each firm-year observation, we first estimate the following equation (1) using the 16 previous quarters of data:

$$Earnings_{it} = \alpha_i + \beta_i \, Return_{it} + \varepsilon_{it} \quad (1)$$

$Earnings_{it}$ is quarterly net income before extraordinary items scaled by beginning of period market value of equity, and $Return_{it}$ is the stock returns during the quarter. The estimated coefficients $\hat{\alpha}_i$ and $\hat{\beta}_i$ represent the accounting function for firm *i*. Similarly, the accounting function for firm *j* can be estimated using firm *j*'s earnings and returns ($\hat{\alpha}_j$ and $\hat{\beta}_j$). To measure the distance between the estimated accounting function of firm *i* and firm *j*, conditional on the same economic events (i.e., $Return_{it}$), we calculate two predicted earnings: predicted earnings of firm *i* given firm *i*'s function and the predicted earnings of firm *j* given firm *j*'s function, both under firm *i*'s return :

$$E(Earnings)_{iit} = \hat{\alpha}_i + \hat{\beta}_i \, Return_{it} \quad (2)$$

$$E(Earnings)_{ijt} = \hat{\alpha}_j + \hat{\beta}_j \, Return_{it} \quad (3)$$

Accounting comparability between firm *i* and *j* ($CompAcct_{ijt}$) can be defined as the negative value of the average absolute difference between the predicted earnings using firm *i*'s and *j*'s functions:

$$CompAcct_{ijt} = -1/16 \times \sum_{t-15}^{t} \left| E\left(Earnings_{iit}\right) - E\left(Earnings_{ijt}\right) \right| \quad (4)$$

$CompAcct_{ijt}$ is estimated for each firm *i* -firm *j* combination for *J* firms within the same two-digit SIC industry. By construction, greater values of $CompAcct_{ijt}$ indicate greater accounting

comparability. Based on the *i-j* measure of comparability, firm-year measures of comparability can be constructed by aggregating $CompAcct_{ijt}$ as follow: (1) $Comp4_{it}$ is the average $CompAcct_{ijt}$ of the four firms *j* with the highest comparability to firm *i* during year t and (2) $CompIND_{it}$ is the median $CompAcct_{ijt}$ for all firms *j* in the same industry as firm *i* during year *t*. The measures developed by De Franco et al. (2011) are now widely used in several recent studies (e.g., Campbell and Yeung 2012; Chen et al. 2012; V. Fang et al. 2012; X. Fang et al. 2012; Kim et al. 2012; Yip and Young 2012) to capture financial statement comparability for firm-year level.

We also estimate an alternative aspect of comparability: covariation of earnings. Specifically, when earnings of two firms covary over time, information about the earnings of one firm can be informative to an investor interested in forecasting the earnings of another firm. De Franco et al. (2011) develop an empirical measure of this covariation or comovement of earnings concept by estimating the pair-wise historical correlation between the earnings of two firms among all possible pairs of firms in the same industry as follow:

$$Earnings_{it} = \delta_{0ij} + \delta_{1ij} Earnings_{jt} + \varepsilon_{ijt} \quad (5)$$

Firm *i*-firm *j* correlation measure of covariation is defined as the adjusted R^2 from this regression and then a firm-year measure of earnings covariation (ECM_{it}) is estimated as the average R^2 for the four firms j with the highest R^2s (i.e., earnings comovement). To control for the effect of economic events on earnings comovement, we also estimate cash flow correlations across firms ($CFCM_{it}$) measured analogously to ECM_{it}, replacing *Earnings* in model (5) with *CFO*, which is the ratio of quarterly cash flow from operations to the beginning market value of equity.

De Franco et al. (2011) find that this measure of earnings comovement is positively related to analyst coverage but is not significantly related to forecast accuracy and dispersion, suggesting a limited role of earnings comovement as a measure of comparability. Lang et al.

(2010) document that earnings comovement has *negative* impacts on firms' information environment, indicating that simple covariation of earnings with industry peer does not help investors in predicting future earnings. By examining the effect of earnings comovement in our setting of FERC, we can provide further evidence on the role of earnings comovement as compared to accounting comparability ($Comp4_{it}$ and $CompIND_{it}$).

3.2 Model

The ability of stock returns to reflect future earnings can be tested using the following model:

$$R_{it} = b_0 + b_1 X_{it-1} + b_2 X_{it} + b_3 X_{it3} + b_4 R_{it3} + Industry\ indicators + \varepsilon_{it} \quad (6)$$

where for year t and firm i:

R_{it} = the cumulative buy-and-hold return for fiscal year t;
X_{it} = income available to common shareholders before extraordinary items deflated by the market value of equity at the beginning of fiscal year t;
R_{it3} = the cumulative buy-and-hold return for fiscal years t+1 through t+3;
X_{it3} = the sum of income available to common shareholders before extraordinary items for years t+1 through t+3 deflated by the market value of equity at the beginning of fiscal year t.

Following Lundholm and Myers (2002), Choi et al. (2011), and Haw et al. (2012), we combine three years of future returns (R_{it+1}, R_{it+2}, and R_{it+3}) to form R_{it3} and combine the next three years of earnings (X_{it+1}, X_{it+2}, and X_{it+3}) to form future earnings (X_{it3}). We follow Collins et al. (1994) and Tucker and Zarowin (2006) and measure returns over the fiscal year. The change in earnings, ΔX_{it}, often appears in the price-earnings relation under the assumption that earnings follow a random walk. Rather than restricting our specification by this assumption, we follow Lundholm and Myers (2002) and include X_{it-1} and X_{it}, instead of ΔX_{it}. Consistent with the interpretation in Choi et al. (2011), Ettredge et al. (2005), and Tucker and Zarowin (2006), b_2 is

called ERC, where b_2 reflects the relation between returns and contemporaneous earnings, and b_3 is called FERC, which reflects the relation between returns and future earnings. Based on prior studies, we expect b_1 to be negative and b_2 and b_3 to be positive. In addition, we expect that the coefficient on future returns (b_4) is negative.

To test our hypothesis on the relation between comparability and FERC, we extend model (6) as follow:

$$R_{it} = b_0 + b_1 X_{it-1} + b_2 X_{it} + b_3 X_{it3} + b_4 R_{it3} + b_5 Comp_{it} + b_6 Comp_{it} \times X_{it-1} + b_7 Comp_{it} \times X_{it} + b_8 Comp_{it} \times X_{it3} + b_9 Comp_{it} \times R_{it3} + Industry\ indicators + \varepsilon_{it} \quad (7)$$

where for year t and firm i:

$Comp_{it}$ = a variable representing financial statement comparability as discussed in Section 3.1; $Comp_{it}$ is either $Comp4_{it}$ or $CompIND_{it}$;

$Comp4_{it}$ = the average $CompAcct_{ijt}$ (which is defined in Section 3.1) of the four firms j with the highest comparability to firm i during year t;

$CompIND_{it}$ = the median $CompAcct_{ijt}$ for all firms in the same industry as firm i during year t.

We also follow prior literature (Lundholm and Myers 2002; Ettredge et al. 2005; Orpurt and Zang 2009; Choi et al. 2011) and extend model (7) to include additional control variables related to firm-specific determinants of FERCs:

$$\begin{aligned} R_{it} = {} & b_0 + b_1 X_{it-1} + b_2 X_{it} + b_3 X_{it3} + b_4 R_{it3} + b_5 Comp_{it} + b_6 Comp_{it} \times X_{it-1} + b_7 Comp_{it} \times X_{it} \\ & + b_8 Comp_{it} \times X_{it3} + b_9 Comp_{it} \times R_{it3} + c_1 SIZE_{it} + c_2 SIZE_{it} \times X_{it-1} + c_3 SIZE_{it} \times X_{it} \\ & + c_4 SIZE_{it} \times X_{it3} + c_5 LOSS_{it} + c_6 LOSS_{it} \times X_{it-1} + c_7 LOSS_{it} \times X_{it} + c_8 LOSS_{it} \times X_{it3} + c_9 GROWTH_{it} \\ & + c_{10} GROWTH_{it} \times X_{it-1} + c_{11} GROWTH_{it} \times X_{it} + c_{12} GROWTH_{it} \times X_{it3} + c_{13} EARNSTD_{it} \\ & + c_{14} EARNSTD_{it} \times X_{it-1} + c_{15} EARNSTD_{it} \times X_{it} + c_{16} EARNSTD_{it} \times X_{it3} + c_{17} ANALYST_{it} \\ & + c_{18} ANALYST_{it} \times X_{it-1} + c_{19} ANALYST_{it} \times X_{it} + c_{20} ANALYST_{it} \times X_{it3} \\ & + Industry\ indicators + \varepsilon_{it} \end{aligned} \quad (8)$$

where for year t and firm i:

$SIZE_{it}$ = the natural log of the market value of equity at the beginning of fiscal year t;

$LOSS_{it}$ = 1 if X_{it3} is negative, 0 otherwise;
$GROWTH_{it}$ = the growth in total assets from year t to year t+1;
$EARNSTD_{it}$ = the standard deviation of X_{it} for years t through t+3;
$ANALYST_{it}$ = the natural log of (one plus the number of analysts following the firm *i* in the month prior to the earnings announcement for fiscal year t), from IBES.

All other variables are as previously defined. We add $SIZE_{it}$ and $ANALYST_{it}$ to control for differences in the information environment across firms. We include an indicator variable, $LOSS_{it}$, because negative future earnings may be more difficult to predict than positive future earnings. We also include $GROWTH_{it}$ and $EARNSTD_{it}$ to control for the effect of growth and earnings volatility on the prediction of future earnings, respectively. Consistent with Lundholm and Myers (2002) and Tucker and Zarowin (2006), control variables except $LOSS_{it}$ are converted into fractional ranks between 0 and 1 each year.

IV. SAMPLE

4.1 Sample and data

Our initial sample includes firm-years in the intersection of the Compustat XPF files and the Center for Research in Securities Prices (CRSP) database for the years 1992-2008.[4] To calculate the comparability measure, following De Franco et al. (2011), only the industries (by first two-digit SIC code) that have at least 10 observations in a year are included in the dataset. To minimize the effect of very small firms, we exclude firms with stock prices less than $3. Following prior studies (Tucker and Zarowin 2006), we delete observations that are in the top or bottom one percent of the distributions of the earnings and return variables as potential outliers.

[4] Our sample begins with 1992 to construct cash flow comovement variable ($CFCM_{it}$) using the previous 16 quarters of data from statements of cash flows, which became widely available from 1988. We also use stock returns and earnings data for 2009, 2010, and 2011 to measure future returns (R_{it3}) and future earnings (X_{it3}) of 2008. Thus, our sample period ends at 2008.

We also require that firm-year observations have necessary data to compute the variables used in the regressions. We observe severe data attrition in the sample selection processes, mostly due to the calculation of comparability measures and the requirements of five years' continuous return and earnings data to estimate the FERC model.

The final sample is 23,551 firm-year observations that have all the necessary data. The number of observations are evenly distributed across our sample period, while it slightly increases over time. The minimum sample size per year is 1,157 observations from year 1992, while the maximum size is 1,730 observations from year 2007.

4.2 Descriptive statistics

Table 1 provides descriptive statistics for the variables used in the regression analyses. The mean (median) values of the comparability measures, $Comp4_{it}$ and $CompIND_{it}$ are -0.35 (-0.19) and 1.72 (-1.39), respectively, which are similar to those reported in De Franco et al. (2011). The mean current (X_{it}) and three-year future earnings (X_{it3}) are 4.2 and 14.3 percent of the market value of equity. The mean current return (R_{it}) and three-year future return (R_{it3}) are 14.4 percent and 33.5 percent, respectively. About 22.8 percent of the sample reports losses (*LOSS*) and about six analysts follow a firm (*ANALYST*).

We do not explain the other variables because they are self-explanatory. Note that some variables reported at the lower part of Table 1 (from IX_{it-1} to BM_{it}) are not yet introduced formally. These variables are used in the sensitivity analyses to buttress our main tests and their respective definitions will be explained later.

[Insert Table 1 here]

Table 2 presents Pearson correlations among variables used in the main analyses. The

earnings variables, X_{it-1}, X_{it}, and X_{it3} are highly correlated, consistent with Lundholm and Myers (2002). The two comparability measures, $Comp4_{it}$ and $CompIND_{it}$, are highly correlated (ρ=0.69). $Comp4_{it}$ is positively correlated with X_{it} and X_{it-1} but is not significantly correlated with X_{it3}, while $CompIND_{it}$ is positively related to all these earnings variables. $Comp4_{it}$ and $CompIND_{it}$ are negatively correlated with current returns (R_{it}),

Among control variables, we find that the a few correlations are very high. For example, the correlation between *SIZE* and *ANALYST* is 0.65, while that between *LOSS* and *EARNSTD* is 0.53. It is natural that large firms are followed by more analysts and loss-reporting firms have greater standard deviation of earnings (i.e., earnings volatility). We fail to find that there exist any other correlations exceeding 0.4 among control variables. Two correlations between our test variable X_{it3} and two control variables (*LOSS* and *EARNSTD*) are also very high, exceeding 0.4 in absolute value as well. Because the four high correlations may distort our empirical results, we report the analyses with and without including control variables and their respective interaction terms.[5]

[Insert Table 2 here]

V. EMPIRICAL RESULTS

5.1 The effect of comparability on FERCs

Using models (6) through (8), we perform ordinary least square (OLS) regression analyses to test whether FERCs are greater for firms with higher comparability. The empirical results are reported in Table 3. The *t*-values in parentheses are based on robust standard errors

[5] Note that Table 2 does not include the correlations with other variables used in the sensitivity analyses. Among the omitted variables, we also find that several variables are strongly correlated. For example, the correlation between *CompIND* and *STDROA* is -0.44.

clustered by firm (Petersen 2009).[6] Column (1) presents the traditional FERC model using model (6). Columns (2) to (4) report the results of the models using $Comp4_{it}$ while Columns (5) to (7) report those using $CompIND_{it}$.

In column (1) of Table 3, the coefficient on X_{it} (the ERC, 1.507; *t*-value = 24.69) and the coefficient on X_{it3} (the FERC, 0.400; *t*-value = 22.26) are all significantly positive.[7] Furthermore, the coefficient on R_{it3} is significantly negative (-0.099; *t*-value = -22.32). The results suggest that our sample characteristics are consistent with those in prior studies on FERC (e.g., Gelb and Zarowin 2002; Lundholm and Myers 2002; Orpurt and Zang 2009). The explanatory power (adjusted R^2) reported at the bottom row of Column (1) is 16.52 percent, suggesting that our model captures the determinants of current returns pretty well.[8]

To examine the effect of comparability on FERC, we estimate model (7) and present the results in Columns (2) and (5).[9] The coefficients on both X_{it} and X_{it3} are significant with a positive sign, consistent with the findings in Column (1). The coefficient on $Comp4_{it} \times X_{it}$ (0.442; *t*-value = 5.25) in Column (2) is significantly positive, consistent with comparability associating with higher ERC. More importantly, the coefficient on $Comp4_{it} \times X_{it3}$ in Column (2) is significantly positive (0.105; *t*-value = 4.17), implying that stock returns of more comparable

[6] For all empirical tests tabulated in this study, the results with or without industry indicators are almost identical.

[7] Although not separately tabulated, we also divide X_{it3} to its three components (X_{it+1}, X_{it+2}, and X_{it+3}) and see if the three components are positively related to the return. The coefficients on the three components are 0.88, 0.33, and 0.37, respectively, and all of them are significant at the conventional level. The results suggest that current return reflects near future earnings more than further future earnings.

[8] The explanatory powers increase further, up to 29% in Columns (7), from 16% reported in the baseline model (Column (1)) as we include more control variables in the regression equations.

[9] Columns (2) and (5) report the results without control variables and their relevant interaction terms while Columns (3), (4), (6), and (7) report the results with them. We decide to report the results without control variables and their relevant interaction terms because the modes with the inclusion of them reveal relatively high variance inflation factors (VIFs), suggesting the existence of multicollinearity. Because we show that the results of test variables in Columns (2) and (5), which are not prone to multicollinearity (all VIFs are less than 5) , are very similar to the results tabulated in Columns (3), (4), (6), and (7), which are prone to multicollinearity, one can infer that our results are not sensitive the potential multicollinearity problem. We also use a similar format in subsequent Table 5.

firms better reflect future earnings. When $CompIND_{it}$ is used for a comparability measure in Column (5), the results are similar. Coefficients on both $CompIND_{it} \times X_{it}$ (0.321; t-value = 8.09) and $CompIND_{it} \times X_{it3}$ (0.077; t-value = 6.47) are significant with a positive sign. These results strongly support the first prediction that comparability helps stock investors to better interpret financial information and thus better anticipate future firm performance.[10]

The documented results in Columns (2) and (5) are also economically important. For example, an interquartile change in $Comp4_{it}$ from Q1 to Q3 increases the magnitude of ERC (the sum of the coefficient on X_{it} and $Comp_{it} \times X_{it}$) by 0.13 from 1.75 to 1.88, suggesting a 7 percent increase in the magnitude of ERC. Similarly, the FERC changes from 0.41 to 0.44 associated with the interquartile change in $Comp4_{it}$, suggesting a 7 percent increase in the magnitude of FERC. These findings clearly reveal that comparability helps to substantially improve the informativeness of stock price.

When we use expanded model (8) which includes various control variables in the model, the results are similar as presented in Columns (3) and (6). Coefficients on both $Comp_{it} \times X_{it}$ and $Comp_{it} \times X_{it3}$ are significant with a positive sign in both columns. Consistent with the prior studies, it is difficult to predict future earnings for firms with losses (i.e., coefficient on $LOSS_{it} \times X_{it3}$ is negative), high growth (i.e., coefficient on $GROWTH_{it} \times X_{it3}$ is negative), and high earnings volatility (i.e., coefficient on $EARNSTD_{it} \times X_{it3}$ is negative). High analyst following is related to

[10] Although not separately tabulated, we also divide X_{it3} to its three components (X_{it+1}, X_{it+2}, and X_{it+3}) and see if the interaction terms between the three components and $Comp4_{it}$ and $CompIND_{it}$ are positive. When we use $Comp4_{it}$, we find out that the coefficient on $Comp4_{it} \times X_{it+1}$ is significant, while the coefficients on $Comp4_{it} \times X_{it+2}$ and $Comp4_{it} \times X_{it+3}$ are not. Alternatively, when we use $CompIND_{it}$ instead of $Comp4_{it}$, we find that all three interaction terms are significantly positive. These results suggest that the effect of comparability on the incorporation of future earnings is generally more pronounced for the near future (i.e., one-year-ahead earnings).

higher FERCs (i.e., coefficient on $ANALYST_{it} \times X_{it3}$ is positive).[11]

In Columns (4) and (7), we further include earnings comovement (ECM_{it}) and cash flow comovement ($CFCM_{it}$) (as explained in Section 3.1) to check whether the covariations in earnings and cash flows affect the FERC. None of the coefficient on $ECM_{it} \times X_{it3}$ and $CFCM_{it} \times X_{it3}$ are significant, supporting Lang et al. (2010) that simple covariation in earnings does not help the usefulness of accounting information for making cross-firm comparisons, while accounting comparability ($Comp_{it}$) improves information environment.[12] More importantly, the coefficients on $Comp_{it} \times X_{it3}$ are still significant in Columns (4) and (7), suggesting that the results are robust to the inclusion of earnings and cash flow comovement and that our accounting comparability measures are distinct from earnings comovement.[13] In summary, the empirical results documented in Table 3 strongly support the first prediction that FERCs are higher for more comparable firms.

[Insert Table 3 here]

5.2 The effect of comparability on the incorporation of market/industry-level and firm-specific earnings

We examine the channels through which comparability affects investors' ability to

[11] Although the coefficient on $SIZE_{it} \times X_{it3}$ is not significant when all control variables are included, it is significantly positive when $SIZE_{it}$ and their interactions are included without other control variables.

[12] When control variables are not included, the coefficient on $ECM_{it} \times X_{it3}$ is significantly negative (*t*-value = -2.29), which is consistent with comovement inhibiting information environment (Lang et al. 2010).

[13] In untabulated tests, we decompose earnings into the accrual and cash flow components (ACC_{it} and CFO_{it}) and re-estimate the regression with the control variables (Orpurt and Zang 2009). The coefficient on $Comp_{it} \times ACC_{it3}$ is significantly positive when either $Comp4_{it}$ or $CompIND_{it}$ is used. However, the coefficient on $CompIND_{it} \times CFO_{it3}$ is not significantly positive (*t*-value =1.42), while the coefficient on $Comp4_{it} \times CFO_{it3}$ is significantly positive (*t*-value =2.90). This result suggests that the role of comparability in facilitating the incorporation of future earnings is more concentrated on the accrual component of earnings. Given that it is more difficult to correctly anticipate the accrual component of earnings (Sloan 1996), this finding supports the usefulness of comparability in investors' decision-making.

predict future firm performance by investigating whether the role of comparability in accelerating future earnings is concentrated in market/industry-level earnings or firm-specific earnings. Following Ayers and Freeman (1997) and Piotroski and Roulstone (2004), we decompose annual earnings (X_{it-1}, X_{it}, and X_{it3}) into the two components, market/industry-level earnings (*IX*) and firm-specific earnings (*FX*). Specifically, the industry component of the current earnings is measured as the median annual earnings (X_{it}) for all firms sharing firm i's two-digit SIC code in year t. The firm-specific component of firm i's earnings (FX_{it}) is measured as the difference between firm i's earnings and market/industry-level earnings, (i.e., $FX_{it} = X_{it} - IX_{it}$). Using a similar procedure, we also decompose X_{it-1} and X_{it3} into the two components, respectively. To examine the second hypothesis, we estimate the extended version of model (7) by decomposing *X* into *IX* and *FX*.

Table 4 presents the results. Column (1) reports the result of extended version of model (6) that decomposes *X* in original model (6) into *IX* and *FX*. The expanded version of model (6) is used for the benchmarks for further analyses. Consistent with Ayers and Freeman (1997), the coefficients on contemporaneous and future industry earnings (IX_{it} and IX_{it3}) are greater than the corresponding coefficients on firm-specific earnings (FX_{it} and FX_{it3}), implying that the industry component of earnings is incorporated into stock prices earlier than the firm-specific component.[14] In Columns (2) and (4), when we include interactions of each earnings component with $Comp_{it}$, the coefficients on both IX_{it} and IX_{it3} and FX_{it} and FX_{it3} are still significant continuously. Furthermore, the coefficients on $Comp4_{it} \times FX_{it3}$ (0.100) and $CompIND_{it} \times FX_{it3}$ (0.080) are both significantly positive, suggesting that accounting comparability facilitates the

[14] Untabulated test shows that the difference between the coefficients on IX_{it} and FX_{it} is significant (*p*-value <0.001). The difference between the coefficients on IX_{it3} and FX_{it3} is also significant (*p*-value <0.001).

incorporation of firm-specific future earnings into current stock price. In contrast, the coefficients on $Comp4_{it}\times IX_{it3}$ (-0.033) and $CompIND_{it}\times IX_{it3}$ (-0.006) are not significant. The findings indicate that firm-level comparability does not help the incorporation of market/industry-level future earnings into current stock prices.[15] The coefficients on $Comp4_{it}\times IX_{it}$, $Comp4_{it}\times FX_{it}$, $CompIND_{it}\times FX_{it}$, and $CompIND_{it}\times FX_{it}$ are all significant with positive signs, suggesting that comparability enhance the magnitude of ERC for both market/industry-level earnings and firm-specific earnings.[16] When we include the set of control variables in the model, the results are similar, as presented in Columns (3) and (5) of Table 4, suggesting the robustness of our main findings.[17]

To facilitate the comparison with prior studies (e.g., Ayers and Freeman 1997), we also estimate alternative specifications in which we use one-year-ahead future returns and earnings (R_{it1} and X_{it1}), instead of combining the next three years' return and earnings (R_{it3} and X_{it3}). We find that the results are very similar to those reported in Table 4 (untabulated). For example, the coefficients on $Comp4_{it}\times IX_{it1}$ and $CompIND_{it}\times IX_{it1}$ are all insignificant (t-value = -1.64 and 0.76, respectively) and the coefficients on $Comp4_{it}\times FX_{it1}$ and $CompIND_{it}\times FX_{it1}$ are significantly positive (t-value = 4.86 and 5.43, respectively).

Taken together, the empirical results support that comparability accelerates the incorporation of firm-specific earnings into stock prices. This function of comparability has

[15] When we further divide FX_{it3} to its three components (FX_{it+1}, FX_{it+2}, and FX_{it+3}) and IX_{it3} to its three components (IX_{it+1}, IX_{it+2}, and IX_{it+3}), we find that the coefficients on $Comp4_{it}\times FX_{i1}$ and $CompIND_{it}\times FX_{i1}$are significantly positive, while the coefficients on other interaction terms are not. These findings also support that the effect of comparability on the incorporation of future earnings is more pronounced for the near future.

[16] The different results on ERC versus FERC suggest that, although comparability helps investors to understand the implications of both market/industry-level and firm-specific current earnings, comparability influences market's ability to interpret the implications of firm-specific future earnings, but not market/ industry-level future earnings.

[17] Note that for the control variables, we consistently use X_{it} in the interaction term with the control variables rather than decomposing X_{it} into IX_{it} and FX_{it}. It is for the simplicity purpose. When we use IX_{it} and FX_{it} and their respective interaction terms instead, the empirical results for the test variables are qualitatively the same.

important implications for the efficient allocation of capital because investors can benefit from high comparability in their portfolio selections.

[Insert Table 4 here]

5.3 The effect of comparability on stock price synchronicity

To provide further evidence on the effect of comparability on stock price informativeness, we examine the relation between comparability and stock price synchronicity. This synchronicity test also provides an alternative way to examine the effect of comparability on market/industry-level versus firm-specific information. Following Morck et al. (2000), the stock price synchronicity is defined as the degree that stock prices of different firms belonging to the same industry move together toward the same direction. Stock price synchronicity measures the relative amount of firm-specific versus market- and industry-level information reflected in stock prices. As less firm-specific information is available and reflected in stock prices, the firm's stock price tends to move in synchronous patterns with other industry peers, thereby making market- and industry-level information a dominant factor in moving stock prices. The literature suggests that high stock price synchronicity (and thus less firm-specific information) is associated with less stock price informativeness and less efficient resource allocation (Durnev et al. 2003, 2004).[18]

We note that there are several important differences between the FERC tests and synchronicity tests. First, as synchronicity measures the *relative* amount of firm-specific versus

[18] Although Mock et al. (2000) initially develop the synchronicity measure to examine cross-country differences in informational environment, several subsequent studies use the measure to compare the firm-by-firm differences in informational environment in a single country. For example, Piotroski and Roulstone (2004) report that synchronicity is related to activities of analysts, institutional investors, and insiders. Gul et al. (2010) report that synchronicity is related to largest shareholder ownership, foreign ownership, and auditor identity.

market/industry-level information, it says little about the amount of information or overall quality of information reflected in stock prices. In contrast, FERC, in measuring the ability of stock prices to predict future earnings, can provide implications about the overall amount and quality of information that can be used in predicting future earnings. Thus, we can test the effect of comparability on the relative amount of information from the synchronicity test and on the overall quality/quantity of information from the FERC tests. Second, the FERC tests provide evidence on the role of comparability in predicting future earnings, which is one aspect of information about firm performance. On the other hand, stock price synchronicity reflects the effect of various sets of information, which is not limited to future earnings information. As a result, the synchronicity test enables us to examine the effect of comparability on all value-relevant information influencing stock prices. In summary, we believe that examining the effect of comparability on both FERC and synchronicity can provide empirical evidence that supplements each other.

Firm-specific measures of stock price synchronicity are estimated for each year following Durnev et al. (2003). Specifically, for each firm-year observation, we regress weekly returns (R_{it}^{weekly}) on the current and prior week's value-weighted market returns ($MRET_{it}^{weekly}$) and the current and prior week's value-weighted two-digit SIC industry return ($IRET_{it}^{weekly}$). Industry returns are calculated after excluding the firm *i*'s return and we require a minimum of 45 weekly observations to estimate the regression as follow:

$$R^{weekly}_{it} = \gamma_0 + \gamma_1 MRET_{it-1}^{weekly} + \gamma_2 MRET_{it}^{weekly} + \gamma_3 IRET_{it-1}^{weekly} + \gamma_4 IRET_{it}^{weekly} + \varepsilon_{it} \quad (9)$$

Once we obtain R^2 for each firm-year observation from model (9), synchronicity is defined as follow (e.g., Morck et al. 2000):

$$Sync\ h_t = \log\left(\frac{R^2}{1-R^2}\right) \quad (10)$$

To determine whether comparability is associated with lower synchronicity (i.e., more firm-specific information), we estimate the following equation using OLS:

$$\begin{aligned} Synch_{it} = {} & \delta_0 + \delta_1 Comp_{it} + \delta_2 SIZE_{it} + \delta_3 STDROA_{it} + \delta_4 HHI_{it} + \delta_5 ANALYST_{it} + \delta_6 \Delta INST \\ & + \delta_7 INSIDE\_trade_{it} + \delta_8 ECM_{it} + \delta_9 CFCM_{it} + \delta_{10} T\ URNOVER_{it} + \delta_{11} BM_{it} \\ & + Industry\ indicators + \varepsilon_{it} \end{aligned} \quad (11)$$

where for year *t* and firm *i*:

$STDROA_{it}$	=	the standard deviation of return on assets (ROA) measured over the years t through t-3, where ROA is defined as income before extraordinary items scaled by lagged total assets;
HHI_{it}	=	the log of a revenue-based Herfindahl index of industry (2-digit SIC)-level concentration;
$\Delta INST_{it}$	=	the absolute change in the number of shares held by institutions, as a fraction of annual trading volume;
$INSIDE\_trade_{it}$	=	the log of the absolute value of net shares purchased by insiders, as a fraction of annual trading volume;
$TURNOVER_{it}$	=	the natural log of (one plus the number of analysts following the share turnover as defined as annual trading volume divided by shares outstanding;
BM_{it}	=	book-to-market ratio at the beginning of the year t.

All other variables are as previously defined. Our variable of interest is $Comp_{it}$, which is either $Comp4_{it}$ or $CompIND_{it}$. If the comparability increases the relative amount of firm-specific information impounded in stock prices relative to market/industry-level information, we expect the coefficient on $Comp_{it}$ to be negative (i.e., lower synchronicity for more comparable firms). We also include several firm and industry characteristics which are known to influence synchronicity. Following the prior studies on synchronicity (e.g., Piotroski and Roulstone 2004; Gul et al. 2010), we include the decile rank of firm size ($SIZE_{it}$), the volatility of the firm's earnings stream ($STDROA_{it}$), the industry concentration (HHI_{it}), the number of analysts

following the firm ($ANALYST_{it}$), [19] changes in institutional holdings ($\Delta INST_{it}$), insider transactions ($INSIDE\_trade_{it}$),[20] share turnover ($TURNOVER_{it}$), book-to-market ratio (BM_{it}), and industry indicators. We also include earnings and cash flows comovement (ECM_{it} and $CFCM_{it}$) to control for the effect of covariation of the firm's profitability and cash flows with the underlying industry's performance on stock price synchronicity.

The empirical results using model (11) are presented in Table 5. When $Comp4_{it}$ is used as a comparability measure in Column (1), the coefficient on $Comp4_{it}$ is negative and significant at the 10 percent level (-0.027; *t*-value = -1.66). Column (3) with $CompIND_{it}$ shows similar results (-0.013; *t*-value = -1.91), implying that high comparability is associated with lower stock price synchronicity. The results suggest that more firm-specific information is reflected into stock price for firms with high comparability. This finding supports the results in Table 4 that comparability accelerates the incorporation of firm-specific earnings rather than market/industry-level earnings. This result is also consistent with Barth et al. (2013) who report that one of the capital market benefits of voluntary adoption of IFRS is the increase in firm-specific information. The results on control variables are all consistent with the findings in prior literature. Large firm size, more analyst coverage, more share turnover, higher earnings and cash flow comovement are associated with higher synchronicity, while the volatility of the firm's earnings stream, institutional and insider trading activities, higher book-to-market ratios are associated with lower synchronicity (Piotroski and Roulstone 2004).

To further check the channel through which comparability influences synchronicity, we

[19] Following Piotroski and Roulstone (2004), we also use the number of analysts' forecast revisions instead of the number of analysts. The empirical results on test variables are similar with this modification.

[20] We retrieve institutional holdings data from Thomson-Reuters Institutional Holdings (13F) database and insider trading data from Thomson-Reuters Insider Filing Data Feed.

examine whether different types of informed market participant- analysts, institutional investors, and insiders- affect the relation between comparability and synchronicity. While it is known that analysts' activities increases synchronicity and institutional and insider trading activities decrease synchronicity, their role with respect to comparability is not clear. Analysts, lacking access to inside information relative to institutional investors and insiders, are more specialized in collecting and interpreting industry information rather than firm-specific information (Piotroski and Roulstone 2004). However, Crawford et al. (2012) show that the type of information that analysts produce depends on other considerations such as information-gathering and processing costs and competition among analysts. Specifically, they find that, for new initiations of coverage, analysts choose to provide low-cost industry information but subsequent initiations of coverage leads to more firm-specific information due to competition among analysts. Since it is less costly to gather and process firm-specific information for firms with high comparability, analysts are expected to produce more firm-specific information. In contrast, insiders are most informed party about the firm information (Piotroski and Roulstone 2004) and thus are less likely to be affected by the firm's comparability. On the other hand, it is less clear whether institutional investors, positioned between analysts and insiders in terms of their access to private information (Piotroski and Roulstone 2004), are affected by comparability in producing firm-specific information. To examine this question on the effect of different types of market participants on the relation between comparability and synchronicity, we interact $Comp_{it}$ with analyst coverage ($ANALYST_{it}$), changes in institutional holdings ($\Delta INST_{it}$), and insider trading activities ($INSIDE\_trade_{it}$). The results are documented in Columns (2) and (4) of Table 5.

In both Columns (2) and (4), the coefficient on $Comp_{it} \times ANALYST_{it}$ is significantly negative. This indicates that greater analyst coverage facilitates the interpretation and

dissemination of firm-specific information for firms with high comparability, consistent with low information cost encouraging analysts to produce firm-specific information. This finding also supports the important role of analysts in helping the stock market to understand the implications of comparability.[21] In contrast, the coefficients on $Comp_{it} \times \Delta INST_{it}$ and $Comp_{it} \times \Delta INSIDE\_trade_{it}$) are not significant in both Columns (2) and (4), suggesting that the impact of institutional investors' and insiders' trading activities on firm-specific information is less affected by comparability.

[Insert Table 5 here]

5.4 The effect of changes in comparability on changes in synchronicity

We note that the level test of stock price synchronicity is subject to correlated omitted variable problems. To provide strong support for our argument, we also examine how *changes* in comparability are related to *changes* in stock price synchronicity. In a related study on changes in synchronicity, Crawford et al. (2012) find that analyst initiations of coverage affect changes in synchronicity. To determine whether increases (decrease) in comparability reduce (enhance) stock price synchronicity, we estimate the following equation (12), which is a slightly modified version of model (11), using OLS:

$$\begin{aligned}\Delta Synch_{it} = {} & \theta_0 + \theta_1 \Delta Comp_{it} + \theta_2 \Delta SIZE_{it} + \theta_3 STDROA_{it} + \theta_4 \Delta HHI_{it} + \theta_5 \Delta ANALYST_{it} \\ & + \theta_6 \Delta INST_{it} + \theta_7 INSIDE\_trade_{it} + \theta_8 \Delta ECM_{it} + \theta_9 \Delta CFCM_{it} + \theta_{10} BM_{it} + \theta_{11} RET_{it-1} \\ & + \text{Industry indicators} + \varepsilon_{it} \end{aligned} \quad (12)$$

$\Delta Synch_{it}$ is a change in synchronicity, defined as $Synch_{it}$-$Synch_{it-1}$. Other change variables are

[21] Note that the coefficient on $Comp4_{it}$ is insignificant (0.018; *t*-value = 0.74) in Column (2) of Table 5. The coefficient on $CompIND_{it}$ in Column (4) shows similar results (0.005; *t*-value = 0.48). This finding suggest that, although comparability is on average associated with more firm-specific information after controlling for analyst coverage (as presented in Columns (1) and (3) of Table 5), high comparability itself is not associated with more firm-specific information for firms that are not followed by analysts.

similarly defined as the change between year t and t-1. We select the control variables following Crawford et al. (2012). We include several change variables such as changes in firm size ($\Delta SIZE_{it}$), Herfindahl index (ΔHHI_{it}), the number of analysts following the firm ($\Delta ANALYST_{it}$), earnings comovement (ΔECM_{it}), and cash flow comovement ($\Delta CFCM_{it}$). We include changes in institutional holdings ($\Delta INST_{it}$), and insider transactions ($INSIDE\_trade_{it}$) to control for the effect by trading activities by institutional investors and insiders. We also include the levels of earnings volatility ($STDROA_{it}$), book-to-market ratio (BM_{it}), and past stock returns (RET_{it-1}), following the use of the level variables in Crawford et al. (2012). Finally, industry indicators are included in the model.

The results presented in Table 6 strongly support the results in Table 5 that comparability facilitates the incorporation of firm-specific information, thereby increasing stock price informativeness. The coefficients on $\Delta Comp_{it}$ are significantly negative in both Column (1) (-0.050; *t-value* = -1.80) and Column (2) (-0.040; *t-value* = -3.26), suggesting that an increase (decrease) in comparability is associated with a decrease (increase) in synchronicity (i.e., more firm-specific information). With respect to the results on control variables, changes in firm size, Herfindahl index, analyst coverage, institutional holdings and past returns are associated with increases in synchronicity, while high book-to-market ratio is associated with low synchronicity, mostly consistent with the findings in Crawford et al. (2012) and those in Table 5.[22]

[Insert Table 6 here]

In summary, the results presented in Table 3 through Table 6 support that comparability is related to high stock price informativeness and that comparability accelerates the incorporation

[22] Note that the sample size in Table 6 (21,035 observations) is slightly smaller than that used in other tables (23,551 observations) due to data attrition caused by using the change variables.

of firm-specific information.

VI. CONCLUSIONS

Financial statement comparability is one of the key elements that enhance the usefulness of accounting information (FASB 2010). But the effect of comparability on various accounting -related issues are not well examined until recently. In this study, we examine whether financial statement comparability affects the ability of stock returns to reflect future earnings. We posit that FERCs are greater for firms that are more comparable with their industry peers because comparability enables investors to better interpret financial information with lower costs and thus better anticipate future firm performance. Our empirical results support this prediction. We also find that the role of comparability in the incorporation of future earnings is primarily driven by firm-specific earnings rather than market/industry-level earnings. Our synchronicity analyses (both levels and change tests) support that comparability is associated with more firm-specific information reflected in stock prices and thus with high stock price informativeness. These findings provide various valuable implications to regulators, academics, and investors on the direct benefits of comparable financial information.

We acknowledge some potential limitations of this study. First, it may be possible that our empirical measures of comparability do not represent the comparability of financial statements well and resulting potential measurement errors can influence our findings (Wu and Zhang 2011). Since the academic research on comparability is in its relatively early stage, we hope future study will test the robustness of the measure. Second, as explained before, we observe high variance inflation factors in some regression analyses due to interaction terms in the control variables. Although our main regression results without control variables also support our

primary conclusions, we are not able to rule out the possibility that our results are not sensitive to the statistical issue. Third, as our samples are restricted to large firms mostly due to data requirements, generalizabilty to small firms can be an issue. Finally, some unknown factors or correlated omitted variables could potentially influence our findings. Subject to these caveats, we believe that our findings still have direct implications for the benefits of comparability ensuring informative stock prices and thus efficient capital allocations.

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TABLE 1
Descriptive statistics

Variable	Mean	Std. Dev.	Q1	Median	Q3
$Comp4_{it}$	-0.350	0.472	-0.390	-0.190	-0.100
$CompIND_{it}$	-1.717	1.169	-2.080	-1.390	-0.960
ECM_{it}	46.709	19.459	32.880	46.050	60.020
$CFCM_{it}$	63.157	21.184	48.580	66.150	80.510
X_{it}	0.042	0.082	0.019	0.052	0.080
X_{it-1}	0.046	0.086	0.021	0.055	0.083
X_{it3}	0.143	0.320	0.021	0.159	0.280
R_{it}	0.144	0.458	-0.149	0.084	0.341
R_{it3}	0.335	0.882	-0.255	0.162	0.686
$SIZE_{it}$ [1)]	6.124	2.016	4.645	6.040	7.483
$LOSS_{it}$ [1)]	0.228	0.420	0.000	0.000	0.000
$GROWTH_{it}$ [1)]	0.125	0.283	-0.012	0.066	0.181
$EARNSTD_{it}$ [1)]	0.065	0.088	0.016	0.033	0.074
$ANALYST_{it}$ [1), 2)]	5.901	7.028	0.000	3.000	9.000
IX_{it-1}	0.038	0.035	0.021	0.042	0.062
IX_{it}	0.032	0.038	0.015	0.036	0.058
IX_{it3}	0.117	0.128	0.039	0.113	0.203
FX_{it-1}	0.007	0.078	-0.019	0.010	0.045
FX_{it}	0.010	0.075	-0.017	0.013	0.048
FX_{it3}	0.025	0.286	-0.094	0.032	0.167
$SYNCH_{it}$	-1.281	1.139	-2.058	-1.277	-0.491
$STDROA_{it}$	0.052	0.066	0.013	0.028	0.062
HHI_{it} [2)]	0.091	0.070	0.046	0.071	0.113
$\Delta INST_{it}$	0.124	0.181	0.023	0.061	0.143
$INSIDE\_Trade_{it}$ [2)]	0.027	0.092	0.000	0.002	0.011
$TURNOVER_{it}$	1.405	1.427	0.446	0.925	1.837
BM_{it}	0.557	0.370	0.293	0.475	0.724

This table reports descriptive statistics for the variables used in our analyses. The sample is 23,551 firm-year observations for the period from 1992 to 2008. $Comp4_{it}$ is the average $CompAcct_{ijt}$ of the four firms j with the highest comparability to firm i during year t as defined in De Franco et al. (2011). $CompAcct_{ijt}$ is described in Section 3.1. $CompIND_{it}$ is the median $CompAcct_{ijt}$ for all firms in the same industry as firm i during year t. ECM_{it} is the average R^2 for the four firms j with the highest R^2s, in which R^2 is estimated from the pair-wise historical correlation between earnings of two firms among in the same industry. $CFCM_{it}$ is similarly defined as ECM_{it} except that cash flow from operation is used instead of earnings. X_{it} is income available to common shareholders before extraordinary items deflated by the market value of equity at the beginning of fiscal year t; X_{it3} is the sum of income available to common shareholders before extraordinary items for years t+1 through t+3 deflated by the market value of equity at the beginning of fiscal year t; R_{it} is the cumulative buy-and-hold return for fiscal year t; R_{it3} is the cumulative buy-and-hold return for fiscal years t+1 through t+3; $SIZE_{it}$ is the natural log of the market value of equity at the beginning of fiscal year t; $LOSS_{it}$ is 1 if X_{it3} is negative, 0 otherwise; $GROWTH_{it}$ is the growth in total assets from year t to year t+1; $EARNSTD_{it}$ is the standard deviation of X_{it} for years t through t+3; $ANALYST_{it}$ is the natural log of (one plus the number of analysts following the firm i in the month prior to the earnings announcement for fiscal year t), from IBES; IX_{it} the median annual earnings (X_{it}) for all firms sharing firm i's two-digit SIC code in year t; FX_{it} is the difference between firm i's earnings and industry earnings (i.e., $FX_{it}=X_{it} - IX_{it}$); $SYNCH_{it}$ is logarithmic transformation of R^2, defined as log (R^2/(1 - R^2)), where R^2 is the coefficient of determination from the firm-year estimation of the model (9); $STDROA_{it}$ is the standard deviation of return on assets (ROA) measured over the years t through t-3, where ROA is defined as income before extraordinary items scaled by lagged total assets; HHI_{it} is the log of a revenue-based Herfindahl index of industry (2-digit SIC)-level concentration; $\Delta INST_{it}$ is the absolute change in the number of shares held by institutions, as a fraction of annual trading volume; $INSIDE\_trade_{it}$

is the log of the absolute value of net shares purchased by insiders, as a fraction of annual trading volume; $TURNOVER_{it}$ is share turnover as defined as annual trading volume divided by shares outstanding; BM_{it} is book-to-market ratio at the beginning of the year t.

[1)] Raw values are ported in this table. In the regression, fractional ranks between 0 and 1 are used.
[2)] Unlogged values are reported in this table.

TABLE 2
Correlations

	$Comp\text{-}IND_{it}$	ECM_{it}	$CFCM_{it}$	X_{it}	X_{it-1}	X_{it3}	R_{it}	R_{it3}	$SIZE_{it}$	$LOSS_{it}$	$GROW\text{-}TH_{it}$	$EARN\text{-}STD_{it}$	$ANALY\text{-}ST_{it}$	$SYNCH_{it}$
$Comp4_{it}$	0.69	0.11	0.28	0.09	0.11	-0.01	-0.05	-0.01	0.23	-0.12	0.02	-0.21	0.16	0.13
	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(0.16)	(<.0001)	(0.17)	(<.0001)	(<.0001)	(0.01)	(<.0001)	(<.0001)	(<.0001)
$CompIND_{it}$		-0.14	0.12	0.29	0.33	0.13	-0.07	0.00	0.24	-0.25	0.00	-0.19	0.13	0.15
		(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(0.85)	(<.0001)	(<.0001)	(0.61)	(<.0001)	(<.0001)	(<.0001)
ECM_{it}			0.34	-0.19	-0.13	-0.10	-0.04	-0.01	0.05	0.10	0.00	0.04	0.07	0.11
			(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(0.34)	(<.0001)	(<.0001)	(0.94)	(<.0001)	(<.0001)	(<.0001)
$CFCM_{it}$				-0.02	-0.02	-0.02	-0.06	0.01	0.36	-0.09	-0.03	-0.14	0.20	0.29
				(0.00)	(0.00)	(0.01)	(<.0001)	(0.04)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)
X_{it}					0.47	0.45	0.26	0.06	0.04	-0.35	0.12	-0.21	0.00	0.02
					(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(0.55)	(0.00)
X_{it-1}						0.30	-0.02	0.05	0.07	-0.28	0.05	-0.11	0.01	0.04
						(<.0001)	0.00	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	0.35	(<.0001)
X_{it3}							0.24	0.44	0.04	-0.69	0.15	-0.43	0.02	0.02
							(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(0.00)	(0.00)
R_{it}								-0.05	-0.13	-0.11	0.22	-0.12	-0.03	-0.08
								(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)
R_{it3}									-0.02	-0.32	0.06	-0.20	-0.01	0.00
									(0.00)	(<.0001)	(<.0001)	(<.0001)	(0.37)	(0.92)
$SIZE_{it}$										-0.20	-0.03	-0.24	0.65	0.58
										(<.0001)	(<.0001)	(<.0001)	(<.0001)	(<.0001)
$LOSS_{it}$											-0.10	0.53	-0.12	-0.10
											(<.0001)	(<.0001)	(<.0001)	(<.0001)
$GROWTH_{it}$												-0.10	0.04	-0.01
												(<.0001)	(<.0001)	(0.21)
$EARNSTD_{it}$													-0.15	-0.11
													(<.0001)	(<.0001)
$ANALYST_{it}$														0.37
														(<.0001)

This table reports the Pearson correlation coefficients among the variables used in our analyses. Two-tailed *p*-values are presented in parentheses. The sample is 23,551 firm-year observations for the period from 1992 to 2008. See Table 1 for variable definitions.

TABLE 3
The effect of comparability on the FERC

		Dependent Variable = R_{it}						
				$Comp_{it}$= $Comp4_{it}$		$Comp_{it}$= $CompIND_{it}$		
	Predicted	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept		0.063***	0.022	-0.002	0.009	-0.045*	-0.016	0.013
		(2.70)	(0.89)	(-0.08)	(0.28)	(-1.84)	(-0.55)	(0.43)
X_{it-1}	(-)	-1.018***	-1.138***	-1.697***	-1.660***	-1.114***	-1.803***	-1.796***
		(-20.45)	(-15.86)	(-9.14)	(-6.69)	(-11.97)	(-9.12)	(-7.42)
X_{it}	(+)	1.507***	1.920***	1.033***	1.601***	2.576***	1.270***	1.533***
		(24.69)	(20.15)	(3.54)	(4.89)	(20.88)	(4.30)	(4.66)
X_{it3}	(+)	0.400***	0.451***	1.126***	1.120***	0.567***	1.168***	1.149***
		(22.26)	(19.26)	(16.47)	(14.37)	(18.27)	(16.47)	(14.65)
R_{it3}	(-)	-0.099***	-0.109***	-0.140***	-0.140***	-0.125***	-0.151***	-0.150***
		(-22.32)	(-20.10)	(-26.81)	(-26.67)	(-14.59)	(-18.21)	(-18.16)
$Comp_{it}$	?		-0.087***	-0.033***	-0.032***	-0.052***	-0.020***	-0.019***
			(-10.21)	(-3.80)	(-3.58)	(-14.12)	(-5.26)	(-4.94)
$Comp_{it}\times X_{it-1}$	?		-0.222***	-0.110	-0.114	-0.111***	-0.084***	-0.087***
			(-3.17)	(-1.60)	(-1.59)	(-3.67)	(-2.92)	(-2.99)
$Comp_{it}\times X_{it}$	(+)		0.442***	0.411***	0.482***	0.321***	0.260***	0.260***
			(5.25)	(4.90)	(5.55)	(8.09)	(6.70)	(6.68)
$Comp_{it}\times X_{it3}$	(+)		0.105***	0.060**	0.059**	0.077***	0.028**	0.028**
			(4.17)	(2.30)	(2.26)	(6.47)	(2.39)	(2.36)
$Comp_{it}\times R_{it3}$	?		-0.022***	-0.026***	-0.025***	-0.013***	-0.011***	-0.011
			(-2.59)	(-2.79)	(-2.68)	(-3.15)	(-2.82)	(-2.78)
$SIZE_{it}$				-0.230***	-0.221***		-0.214***	-0.203
				(-10.80)	(-10.28)		(-9.97)	(-9.34)
$SIZE_{it}\times X_{it-1}$				1.602***	1.577***		1.608***	1.588
				(7.27)	(7.03)		(7.12)	(6.92)
$SIZE_{it}\times X_{it}$				-0.389	-0.254		-0.622**	-0.539
				(-1.51)	(-0.96)		(-2.42)	(-2.05)
$SIZE_{it}\times X_{it3}$				0.068	0.070		0.067	0.066
				(1.01)	(1.05)		(1.01)	(0.98)
$LOSS_{it}$				0.007	0.006		0.003	0.002
				(0.63)	(0.53)		(0.22)	(0.16)
$LOSS_{it}\times X_{it-1}$				0.051	0.073		0.139	0.144
				(0.49)	(0.71)		(1.31)	(1.35)
$LOSS_{it}\times X_{it}$				-0.084	-0.059		0.078	0.084
				(-0.71)	(-0.50)		(0.66)	(0.71)
$LOSS_{it}\times X_{it3}$				-1.148***	-1.142***		-1.103***	-1.101
				(-23.24)	(-23.12)		(-22.19)	(-22.22)
$GROWTH_{it}$				0.196***	0.196***		0.195***	0.194
				(14.44)	(14.43)		(14.53)	(14.50)
$GROWTH_{it}\times X_{it-1}$				-0.413***	-0.422***		-0.450***	-0.454
				(-2.73)	(-2.79)		(-2.97)	(-2.99)
$GROWTH_{it}\times X_{it}$				1.097***	1.089***		1.058***	1.062
				(5.87)	(5.81)		(5.62)	(5.62)
$GROWTH_{it}\times X_{it3}$				-0.260***	-0.259***		-0.248***	-0.247
				(-6.26)	(-6.26)		(-6.03)	(-6.02)
$EARNSTD_{it}$				-0.154***	-0.161***		-0.159***	-0.163
				(-8.49)	(-8.74)		(-8.91)	(-8.96)
$EARNSTD_{it}\times X_{it-1}$				0.915***	0.905***		0.921***	0.936
				(4.58)	(4.49)		(4.74)	(4.77)

$EARNSTD_{it} \times X_{it}$			0.156	0.208		0.360	0.299
			(0.49)	(0.62)		(1.13)	(0.91)
$EARNSTD_{it} \times X_{it3}$			-0.252***	-0.252***		-0.293***	-0.284
			(-3.33)	(-3.31)		(-3.91)	(-3.79)
$ANALYST_{it}$			0.034**	0.030*		0.022	0.021
			(1.99)	(1.73)		(1.28)	(1.23)
$ANALYST_{it} \times X_{it-1}$			-0.665***	-0.679***		-0.665***	-0.665
			(-3.57)	(-3.63)		(-3.54)	(-3.54)
$ANALYST_{it} \times X_{it}$			0.353	0.452**		0.544**	0.574
			(1.55)	(1.99)		(2.39)	(2.53)
$ANALYST_{it} \times X_{it3}$			0.135**	0.126**		0.135**	0.129
			(2.50)	(2.33)		(2.49)	(2.38)
ECM_{it}				0.000			0.000
				(0.34)			(-0.26)
$ECM_{it} \times X_{it-1}$				-0.002			-0.002
				(-0.73)			(-0.97)
$ECM_{it} \times X_{it}$				-0.004			0.000
				(-1.29)			(0.14)
$ECM_{it} \times X_{it3}$				0.000			0.000
				(0.00)			(0.03)
$CFCM_{it}$				0.000			-0.001
				(-1.52)			(-2.62)
$CFCM_{it} \times X_{it-1}$				0.001			0.002
				(0.42)			(0.64)
$CFCM_{it} \times X_{it}$				-0.008***			-0.005
				(-2.65)			(-1.64)
$CFCM_{it} \times X_{it3}$				0.000			0.000
				(0.08)			(0.26)
Industry indicators	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R^2	16.52%	17.55%	28.82%	28.98%	19.07%	29.04%	29.12%

The sample is 23,551 firm-year observations for the period 1992-2008. All t-statistics (in parentheses) are calculated using a clustering procedure to correct for serial correlation within a cluster (a firm). The symbols *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests. See Table 1 for variable definitions.

TABLE 4
The effect of comparability on the incorporation of market/industry-level earnings and firm-specific earnings into stock prices

	Dependent Variable = R_{it}				
		$Comp_{it}$= $Comp4_{it}$		$Comp_{it}$= $CompIND_{it}$	
	(1)	(2)	(3)	(4)	(5)
Intercept	-0.017	-0.045*	-0.025	-0.105***	-0.039
	(-0.68)	(-1.78)	(-0.84)	(-3.96)	(-1.28)
IX_{it-1}	-2.658***	-3.140***	-3.494***	-2.515***	-3.047***
	(-15.19)	(-14.34)	(-12.76)	(-7.63)	(-8.45)
IX_{it}	3.401***	4.250***	3.709***	4.563***	3.533***
	(18.82)	(18.61)	(11.69)	(13.08)	(9.10)
IX_{it3}	0.823***	0.795***	1.016***	0.781***	1.013***
	(22.10)	(16.42)	(14.06)	(11.03)	(11.17)
FX_{it-1}	-1.057***	-1.119***	-1.729***	-1.085***	-1.770***
	(-20.38)	(-15.11)	(-10.02)	(-10.81)	(-9.89)
FX_{it}	1.569***	1.890***	1.668***	2.472***	1.886***
	(24.58)	(19.29)	(7.13)	(19.09)	(8.07)
FX_{it3}	0.392***	0.441***	0.828***	0.567***	0.870***
	(21.35)	(18.42)	(14.39)	(17.51)	(14.26)
R_{it3}	-0.104***	-0.113***	-0.137***	-0.130***	-0.148***
	(-23.34)	(-20.63)	(-25.77)	(-14.86)	(-17.43)
$Comp_{it}$		-0.071***	-0.022	-0.045***	-0.016***
		(-5.09)	(-1.53)	(-8.45)	(-2.97)
$Comp_{it}\times IX_{it-1}$		-1.064***	-0.641**	-0.070	0.035
		(-3.20)	(-1.98)	(-0.42)	(0.22)
$Comp_{it}\times IX_{it}$		1.689***	1.287***	0.454**	0.262
		(4.67)	(3.77)	(2.45)	(1.53)
$Comp_{it}\times IX_{it3}$		-0.033	-0.064	-0.006	-0.025
		(-0.43)	(-0.84)	(-0.15)	(-0.65)
$Comp_{it}\times FX_{it-1}$		-0.152**	-0.029	-0.090**	-0.045
		(-1.98)	(-0.39)	(-2.57)	(-1.36)
$Comp_{it}\times FX_{it}$		0.348***	0.336***	0.280***	0.234***
		(3.67)	(3.49)	(6.15)	(5.14)
$Comp_{it}\times FX_{it3}$		0.100***	0.068**	0.080***	0.031**
		(3.73)	(2.51)	(6.21)	(2.44)
$Comp_{it}\times R_{it3}$		-0.019**	-0.022**	-0.013***	-0.011**
		(-2.19)	(-2.37)	(-3.06)	(-2.57)
$SIZE_{it}$			-0.224***		-0.208***
			(-10.53)		(-9.71)
$SIZE_{it}\times X_{it-1}$			1.773***		1.719***
			(7.97)		(7.60)
$SIZE_{it}\times X_{it}$			-0.702***		-0.896***
			(-2.76)		(-3.54)
$SIZE_{it}\times X_{it3}$			0.043		0.052
			(0.64)		(0.78)
$LOSS_{it}$			0.030**		0.025**
			(2.50)		(2.09)
$LOSS_{it}\times X_{it-1}$			0.026		0.128
			(0.25)		(1.21)
$LOSS_{it}\times X_{it}$			-0.025		0.116
			(-0.22)		(1.02)
$LOSS_{it}\times X_{it3}$			-1.118***		-1.074***

			(-22.81)		(-21.91)
$GROWTH_{it}$			0.194***		0.193***
			(14.42)		(14.52)
$GROWTH_{it} \times X_{it-1}$			-0.426***		-0.472***
			(-2.91)		(-3.22)
$GROWTH_{it} \times X_{it}$			0.911***		0.900***
			(4.99)		(4.90)
$GROWTH_{it} \times X_{it3}$			-0.128***		-0.117***
			(-3.28)		(-3.02)
$EARNSTD_{it}$			-0.182***		-0.188***
			(-10.49)		(-10.90)
$EARNSTD_{it} \times X_{it-1}$			0.865***		0.872***
			(4.61)		(4.71)
$EARNSTD_{it} \times X_{it}$			-0.369		-0.195
			(-1.50)		(-0.77)
$EARNSTD_{it} \times X_{it3}$			0.072		0.031
			(1.12)		(0.48)
$ANALYST_{it}$			0.031*		0.019
			(1.86)		(1.10)
$ANALYST_{it} \times X_{it-1}$			-0.644***		-0.605***
			(-3.44)		(-3.20)
$ANALYST_{it} \times X_{it}$			0.358		0.514**
			(1.59)		(2.27)
$ANALYST_{it} \times X_{it3}$			0.158***		0.156***
			(2.94)		(2.90)
Industry indicators	Yes	Yes	Yes	Yes	Yes
Adj. R^2	18.76%	19.55%	29.70%	20.75%	29.84%

The sample is 23,551 firm-year observations for the period 1992-2008. All t-statistics (in parentheses) are calculated using a clustering procedure to correct for serial correlation within a cluster (a firm). The symbols *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests. See Table 1 for variable definitions.

TABLE 5
The effect of comparability on stock price synchronicity

	Dependent Variable = $SYNCH_{it}$			
	$Comp_{it}$= $Comp4_{it}$		$Comp_{it}$= $CompIND_{it}$	
	(1)	(2)	(3)	(4)
Intercept	-2.932***	-2.909***	-2.933***	-2.892***
	(-36.85)	(-36.35)	(-36.98)	(-35.50)
$Comp_{it}$	-0.027*	0.018	-0.013*	0.005
	(-1.66)	(0.74)	(-1.91)	(0.48)
$SIZE_{it}$	0.165***	0.165***	0.165***	0.165***
	(36.57)	(36.59)	(36.56)	(36.53)
$STDROA_{it}$	-0.390***	-0.418***	-0.413***	-0.416***
	(-2.86)	(-3.05)	(-2.99)	(-3.00)
HHI_{it}	0.003	0.003	0.004	0.006
	(0.15)	(0.16)	(0.23)	(0.30)
$ANALYST_{it}$	0.040***	0.027**	0.040***	0.020
	(3.64)	(2.23)	(3.62)	(1.30)
$Comp_{it}$× $ANALYST_{it}$		-0.042***		-0.012**
		(-2.72)		(-2.05)
$\Delta INST_{it}$	-0.252***	-0.257***	-0.251***	-0.299***
	(-6.80)	(-5.76)	(-6.77)	(-4.70)
$Comp_{it}$× $\Delta INST_{it}$		-0.014		-0.030
		(-0.21)		(-0.90)
$INSIDE\_Trade_{it}$	-0.522***	-0.532***	-0.523***	-0.594***
	(-5.83)	(-5.26)	(-5.84)	(-5.23)
$Comp_{it}$× $INSIDE\_Trade_{it}$		-0.016		-0.023
		(-0.34)		(-1.06)
ECM_{it}	0.002***	0.002***	0.002***	0.002***
	(5.23)	(5.15)	(5.15)	(5.08)
$CFCM_{it}$	0.005***	0.005***	0.005***	0.005***
	(10.75)	(10.70)	(10.77)	(10.77)
$TURNOVER_{it}$	0.130***	0.130***	0.130***	0.129***
	(19.15)	(19.10)	(19.12)	(18.96)
BM_{it}	-0.124***	-0.122***	-0.123***	-0.124***
	(-4.93)	(-4.87)	(-4.93)	(-4.94)
Industry indicators	Yes	Yes	Yes	Yes
Adj. R^2	19.55%	29.70%	20.75%	29.84%

The sample is 23,551 firm-year observations for the period 1992-2008. All t-statistics (in parentheses) are calculated using a clustering procedure to correct for serial correlation within a cluster (a firm). The symbols *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests. See Table 1 for variable definitions.

TABLE 6
The effect of changes in comparability on changes in synchronicity

	Dependent Variable = $\Delta SYNCH_{it}$	
	$Comp_{it}$= $Comp4_{it}$	$Comp_{it}$= $CompIND_{it}$
	(1)	(2)
Intercept	0.024	0.024
	(0.95)	(0.97)
$\Delta Comp_{it}$	-0.050*	-0.040***
	(-1.80)	(-3.26)
$\Delta SIZE_{it}$	0.095**	0.103**
	(2.25)	(2.44)
$STDROA_{it}$	-0.036	-0.011
	(-0.41)	(-0.13)
ΔHHI_{it}	0.165***	0.166***
	(4.04)	(4.05)
$\Delta ANALYST_{it}$	0.038***	0.038***
	(2.64)	(2.65)
$\Delta INST_{it}$	0.286***	0.288***
	(4.85)	(4.89)
$INSIDE\_Trade_{it}$	0.022	0.024
	(0.40)	(0.42)
ΔECM_{it}	0.001	0.001
	(1.41)	(1.33)
$\Delta CFCN_{it}$	0.000	0.000
	(-0.13)	(-0.18)
$\Delta TURNOVER_{it}$	0.002	0.002
	(0.25)	(0.23)
BM_{it}	-0.031**	-0.032**
	(-2.05)	(-2.11)
RET_{it-1}	0.151***	0.147***
	(4.56)	(4.44)
Industry indicators	Yes	Yes
Adj. R^2	1.80%	1.83%

The sample is 21,035 firm-year observations for the period 1992-2008. All t-statistics (in parentheses) are calculated using a clustering procedure to correct for serial correlation within a cluster (a firm). The symbols *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively, in two-tailed tests. See Table 1 for variable definitions.