



# **Mandatory IFRS Adoption and Financial Statement Comparability**

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# Mandatory IFRS Adoption and Financial Statement Comparability

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**Abstract:** This study examines the effect of mandatory International Financial Reporting Standards (IFRS) adoption on financial statement comparability. To isolate the effects of changes in comparability, we examine changes to information asymmetry for firms domiciled in the UK. UK domestic standards that preceded IFRS adoption are considered very similar to IFRS (Bae et al. 2008); accordingly, we use the UK as a setting to isolate changes to the information environment relating to IFRS adoption that more likely to reflect changes in comparability versus information quality. If IFRS adoption improves financial statement comparability across firms, we predict this should reduce private information benefits. Empirical results confirm these predictions. Specifically, abnormal returns to two proxies for private information (insider purchases and analyst recommendation upgrades) are reduced following IFRS adoption. Similar results are obtained for subsamples that further isolate the reduction in private information as attributable to increases in comparability: firms having low amounts of reconciling items between UK GAAP and IFRS, and firms having *ex ante* high quality information environments. Together, the results are consistent with mandatory IFRS adoption leading to enhanced comparability.

**Key Terms:** IFRS, comparability, private information

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# Mandatory IFRS Adoption and Financial Statement Comparability

## 1. Introduction

This paper examines whether mandatory adoption of International Financial Reporting Standards (IFRS) enhances financial statement comparability. That is, we investigate whether IFRS adoption alters the information environment even within countries *ex ante* having domestic standards similar to IFRS. Prior research documents that adoption of international accounting standards is associated with higher quality accounting (e.g., Ashbaugh and Pincus 2001; Barth et al. 2008). However, this research suggests that much of the improvement occurs for firms domiciled in countries in which domestic standards differ significantly from international standards. Thus, the latter results are consistent with the benefits of IFRS adoption primarily relating to improvements in information quality. We extend this literature by documenting that adoption of IFRS leads to informational benefits even in a setting *ex ante* having few differences between domestic standards and IFRS, consistent with improvements in comparability also enhancing the information environment on IFRS adoption.

To isolate the effects attributable to changes in comparability, versus changes in information quality, we examine firms domiciled in the UK over the period 2003 through 2006. Several institutional features make this a strong setting to examine the effects of IFRS adoption on comparability. First, the UK observed a substantial exogenous shock to the reporting system, coincident with the mandatory adoption of IFRS within the European Union (EU) effective for fiscal years ending January 1, 2005. Second, the domestic accounting standards of the UK are arguably quite similar to IFRS (e.g., Bae et al. 2008), suggesting any benefits from IFRS adoption are less likely attributable to changes in information quality *per se*. Finally, the UK

equity market is deeper relative to other markets experiencing IFRS adoption, providing both more precision in measuring our primary proxies as well as increased statistical power.

To measure changes in the information environment surrounding IFRS adoption, we assess the change in abnormal returns to two proxies for private information: insider purchases and analyst recommendation upgrades. We focus on insider purchases because this represents a measure of private information possessed by firm insiders.<sup>1</sup> We focus on analyst recommendation upgrades because this captures an alternative source of private information that is obtained through detailed firm- and industry-level analysis, and that is generally not subject to litigation risk. If IFRS adoption improves the information environment, even for firms previously reporting under domestic standards that are similar to those mandated under IFRS, then we expect to observe reduced benefits to private information, owing to enhancements in financial statement comparability. That is, we expect that IFRS adoption will improve the public information set (and by extension, reduce the private information set) by allowing all users to better infer firm performance and valuation through enhanced comparability of financial statements.

Empirical results are consistent with IFRS adoption leading to improvements in comparability. We find that insider purchases exhibit significantly lower abnormal returns subsequent to IFRS adoption, relative to insider purchases made prior to IFRS adoption. Specifically, after controlling for other determinants of returns for insider purchases, we find that abnormal returns decrease by 4.2% in six-month return windows. Similarly, we find that analyst recommendation upgrades exhibit significantly lower abnormal returns after IFRS adoption, with reductions of 2.9% in six-month return windows. Results for both proxies are robust to multiple

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<sup>1</sup> Insiders' purchases tend to be more informative than insiders' sales (e.g., Lakonishok and Lee, 2001; Jeng, Metrick, and Zeckhauser, 2003) in part because of asymmetric litigation risk (e.g., Skinner, 1994).

return measurement windows (i.e., one-month, three-month, and six-month) and alternative definitions of abnormal returns (e.g., using alternative risk adjustments).

To further validate that these effects are most likely attributable to changes in comparability versus information quality, we exploit that there is likely firm-level variation in the extent to which the firm's standards are similar to IFRS, even within a country having domestic standards considered similar to IFRS (such as the UK). This variance can be attributable to, among other things, implementation and the ability of the accounting system to capture the economics of the firm's operations. Accordingly, we conduct additional partitions to better isolate the effects of comparability. First, we identify UK firms having *ex ante* high quality information environments: those firms reporting the lowest quartile of accruals or reporting no R&D expenditures. Second, we identify UK firms having low amounts of reconciling items between UK standards and IFRS. Both subsamples should better isolate firms, for which any effects of IFRS adoption are more likely attributable to changes in comparability versus changes in the quality of information. Consistent with our primary results, we find that IFRS adoption reduces the abnormal returns to insider purchases for both subsamples. Additional sensitivity analyses, including those to mitigate concerns related to the effects of contemporary changes in the regulatory regime, also confirm our primary results.

Overall, these results are consistent with mandatory IFRS adoption leading to information benefits consistent with improved comparability. This contributes to the literature in two ways. First, we build on previous studies investigating anticipated and actual effects of IFRS adoption (e.g., Daske et al. 2008; Armstrong et al. 2010) by documenting that benefits to IFRS adoption extend beyond those relating to changes in information quality; that is, they also include benefits attributable to enhanced comparability. This evidence also supports regulatory motivation

behind initial IFRS adoption efforts, which argued that mandatory adoption of a common set of standards can provide comparability benefits (e.g., Regulation EC No 1606/2002 of the European Parliament). Second, we document that benefits of IFRS adoption can accrue even for firms already having high quality information environments (e.g., Armstrong et al. 2010). For such firms, the effect of IFRS adoption on the information environment most likely relates to changes in comparability.<sup>2</sup>

Section 2 discusses the prior literature and hypothesis development. Section 3 presents the research design. Section 4 presents the sample selection, descriptive data, and empirical results. Section 5 presents empirical results using firm partitions. Section 6 presents sensitivity analyses. Section 7 concludes.

## **2. Hypothesis Development and Background**

### *Hypothesis development*

The widespread adoption of IFRS and related convergence initiatives have led to numerous studies examining the implications of IFRS adoption. Prior literature documents that investors positively anticipated IFRS adoption in Europe (Armstrong et al. 2010). Prior papers further document a general reduction in information asymmetry for firms voluntarily adopting IFRS with corresponding commitment to high quality implementation (Daske et al. 2009), as well as for firms adopting IFRS by mandate within settings with high enforcement regimes (e.g., Daske et al. 2008; Li 2010). This prior research indicates that IFRS adoption, when coupled with enforcement or commitment, leads to changes in the information for the markets in which these firms operate. It further suggests that these changes may derive from improvements in

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<sup>2</sup> Although it is not a primary focus of the paper, we also provide evidence on the association between insider trading profits and properties of financial reporting by documenting that an exogenous shock to the reporting system can affect corporate insiders' ability to trade profitably in their company's stock.

information quality, since there is a large effect where pre-IFRS domestic standards differ substantially from IFRS (e.g., Daske et al. 2008).

However, there is little direct evidence in prior studies regarding the IFRS adoption effect, if any, upon changes attributable to improvements in financial reporting comparability. Horton and Serafeim (2010) reports evidence that analyst forecast accuracy improves after mandatory IFRS adoption for analysts, who cover firms that report under multiple standards before IFRS adoption. Relatedly, DeFond et al. (2011) reports evidence of increased foreign mutual fund ownership flows following mandatory IFRS adoption for firms domiciled in countries with greater enforcement, suggesting this effect relates to enhanced comparability. While both studies infer changes due to IFRS adoption as attributable to changes in comparability, the pre-IFRS domestic standards used by some firms within these samples likely differed substantially from IFRS, suggesting the effects may continue to reflect changes in information quality.

We extend this literature by examining whether informational benefits accrue to firms domiciled in countries exhibiting few *ex ante* differences between domestic GAAP and IFRS. In such settings, it is unclear that IFRS adoption would provide informational benefits, and the nature of information reported should not change substantially before versus after IFRS adoption. However, benefits may accrue due to improvements in comparability. Specifically, IFRS adoption can reduce private information for firms already reporting under high quality pre-IFRS standards, if the information environment for other (competitor) firms improves upon IFRS adoption. Restated, the absolute level of information may not change upon IFRS adoption for a firm with domestic standards similar to IFRS. However, the relative level of information may change, if the information for peer firms changes upon IFRS adoption, as would likely be the



case for competitor firms domiciled in countries with domestic standards that differ significantly from IFRS.

Accordingly, if IFRS adoption leads to improvements in comparability, then we predict that the informativeness of insider trades will decrease following IFRS adoption even in a setting in which firm-specific information is not substantially changing *per se*. That is, if there are comparability improvements, then investors' ability to understand a firm's relative performance will diminish insiders' informational advantage, after more firms provide financial information under a common reporting system. Insiders' information advantage derives from access to firm-specific information about decisions that may affect firm performance, and from a sophisticated understanding of how firm performance is correlated with (and is potentially affected by) the performance of other firms. Financial reporting changes that enhance comparability alone are not likely to affect insiders' information advantage relating to access to firm-specific information. However, comparability improvements are likely to allow other investors to assess how the firm's performance correlates with other firms' performance (Wu and Zhang, 2010). Therefore, we expect that comparability improvements will reduce some (but not likely all) of insiders' information advantage.

### ***UK setting, insider trading, and analyst purchase recommendations***

To examine whether IFRS adoption leads to improvements in comparability, we choose as our setting firms domiciled in the UK for the following reasons. First, the UK experienced a large exogenous shock to the reporting system, as the country adopted IFRS coincident with mandatory adoption in the EU effective 2005. Second, prior research suggests that domestic accounting standards in the UK are relatively similar to IFRS. In particular, Bae et al. (2008)

systematically review the accounting standards comprising IFRS, concluding that these standards do not differ substantially from UK standards (see their Table 1, pages 601-2). Thus, while some differences may exist across UK standards versus IFRS, UK standards appear among the closest to IFRS relative to other countries adopting IFRS. Third, restricting the analysis to a single country mitigates variation in institutional characteristics that can occur in cross-country samples that are used in other settings. Fourth, the UK represents the largest equity market among countries experiencing mandatory IFRS adoption, which increases available observations, and thus statistical power, for our analyses.<sup>3</sup> Finally, the UK requires timely disclosures regarding the timing and amounts of trades in shares by insiders, which is one of our primary proxies for possession of private information. The reporting requirements in other EU countries experiencing mandatory adoption are not as strict, limiting our ability to use other country settings.

Within the UK setting, we use two primary measures to proxy for private information: purchases of equity shares by insiders, and recommendation upgrades of analysts. We provide institutional background regarding each below.

The regulatory framework surrounding insider trading in the UK, as well as empirical evidence on UK insider trading informativeness (e.g., Fidrmuc et al. 2006), suggests that insider purchases are a strong setting to examine the effect of IFRS adoption on the information asymmetry between insiders and outsiders. Prior to IFRS adoption, insider trading in the UK was regulated by domestic rules (e.g., 1985 Companies Act). Effective July 2005, the UK implemented EU directives (e.g., the Market Abuse Directive), which harmonized insider trading law across member states. However, the UK also retained previous domestic provisions, which

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<sup>3</sup> Supporting this notion, Fidrmuc et al. (2011) finds that insider purchases are *more* informative in countries with stronger governance and enforcement institutions, particularly the U.S. and the UK.

were stricter than the EU rules. Thus, the UK setting maintains continuity in the regulatory framework surrounding insider trading across the pre- and post-IFRS periods.

Within the UK, key notions surrounding insider trading are similar to those within the US. Insider trading primarily is based on the notion of materiality and publicity of information that is traded upon (Engle 2010). Thus, inside information is defined as

information of a precise nature which has not been made public, relating, directly or indirectly, to one or more issuers of financial instruments or to one or more financial instruments and which, if it were made public, would be likely to have a significant effect on the prices of those financial instruments or on the price of related derivative financial instruments. (Market Abuse Directive 2006/6/EC)

EU regulation fundamentally considers insider dealing as an abuse of the market rather than a breach of fiduciary duty to the company. Insiders are defined as any person who “by virtue of his membership of the administrative, management or supervisory bodies of the issuer [...] possesses inside information”; thus, both corporate directors and officers are considered insiders.

Disclosure rules regarding equity transactions executed by insiders require that these trades be revealed within five days of execution. These requirements remain constant both under UK domestic insider trading regulation, as well as rules applicable under the more recent EU directives. Consistent with this requirement for timely disclosure, Fidrmuc et al. (2006) reports that 85% of the observations in their sample of UK directors’ and officers’ transactions between 1991 and 1998 are reported within a day of their execution.

Finally, regulation over insider trading in the UK is enforced through the Financial Services Authority (FSA), which has the power to impose civil sanctions on persons engaging in insider trading. While concerns remain, as in most jurisdictions, about the ability of the FSA to detect and prosecute illegal insider trading, the extent to which corporate directors and officers can engage in illegal trading in the UK appears to be (i) limited and (ii) not subject to significantly different regulation around the adoption of IFRS. For instance, UK insiders are

precluded from trading within a window of up to two months prior to earnings announcements (Pope et al. 1990), and that rule appears to be strictly enforced, as insider trading is virtually non-existent during that window (Hillier and Marshall 1998, 2002).

Sell-side analysts act as information intermediaries, who aggregate and analyze firm, industry, and market-level data. This analysis leads to investment recommendations, which are disseminated to their clients. Traditionally, research has considered analysts as representative of informed market participants: for example, by using their earnings forecasts to proxy for market expectations of future earnings. Accordingly, we consider sell-side analysts to be a second group of informed market participants. However, similar to insiders, if IFRS leads to improved comparability, this should reduce analysts' private information benefits. Thus, we predict that analysts' information advantage may be reduced after the adoption of IFRS.

We note two issues surrounding the use of analysts to proxy for users having private information. First, selective disclosure of material private information from management to outside parties such as analysts has been subject to scrutiny by regulators around the world, who wish to promote a level playing field in financial markets. For analysts, access to corporate managers, including through private meetings, constitutes a potentially significant portion of their private information set. In the UK, the first regulatory guidelines on the dissemination of price sensitive corporate information were released in 1994. Subsequent revisions to the UK guidance were conceptually and operationally similar to those presented within the EU directives (e.g., the Market Abuse Directive). Thus, both UK and EU regulations (conceptually) preclude selective disclosure of material information by companies to analysts.<sup>4</sup>

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<sup>4</sup> However, Cohen et al. (2010) provides evidence suggesting that UK analysts can more easily extract valuable information from their access to management relative to US analysts, particularly following passage of Regulation Fair Disclosure (issued 2000), which reduced managers' ability to communicate privately with analysts in the US. If analysts of our UK firms continue to obtain private information through such channels

Second, although we do not expect litigation risk to affect analyst recommendations as it does insider trades, we still consider favorable analyst recommendations to be more likely driven by “inside” information than unfavorable recommendations. Prior research suggests analysts face substantial incentives to issue reports for firms in which they have positive expectations of future performance (e.g., McNichols and O’Brien 1997). Further, analysts who issue “Sell” recommendations are more likely to have their access to management restricted as a form of retaliation (Mayew 2008; Westphal and Clement 2008). Hence, the asymmetric objective function of analysts leads us to focus on their favorable recommendations as a proxy for their information advantage.

### **3. Research Design**

#### *Abnormal returns to insider purchases*

We choose to examine insider purchases of shares for the following reasons. First, use of insider trades allows a direct examination of a user’s ability to exploit private information (Kyle 1985). Second, our use of purchases allows us to better isolate trading more likely reflective of information. Prior research documents an asymmetric association between insider purchases versus sales and subsequent stock returns, where purchases precede good news whereas sales tend to be weakly associated with bad news, if at all (Lakonishok and Lee 2001; Fildmuc et al. 2006). This empirical regularity is commonly attributed to an asymmetry in litigation risk associated with trading on privately known bad news versus good news and a greater proportion of sales being driven by liquidity or portfolio rebalancing needs.

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even after IFRS adoption, this will bias against finding any reduction in private information benefits due to improved comparability.

To assess the informativeness of insider purchases surrounding IFRS adoption, we estimate the following regression:

$$BHRET_{jt} = \alpha_0 + \alpha_1 BUYSIZE_{jt} + \alpha_2 BM_{jt} + \alpha_3 SIZE_{jt} + \alpha_4 RD_{jt} + \alpha_5 CLOSEHELD_{jt} + \alpha_6 RETLAG_{jt} + \alpha_7 VOLATILITY_{jt} + \alpha_8 IFRS_{jt} + Industry\ f.e. + \varepsilon_{jt} \quad (1)$$

where:

<i>BHRET</i>	the cumulative abnormal buy-and-hold return for firm <i>j</i> aggregated alternatively over one-month, three-month, or six-month windows starting one day following insider purchases executed during fiscal year <i>t</i> ;
<i>BUYSIZE</i>	the total number of shares purchased by insiders of firm <i>j</i> during year <i>t</i> divided by the number of shares outstanding at the end of year <i>t</i> ;
<i>BM</i>	firm <i>j</i> 's book-to-market ratio, measured at the end of fiscal year <i>t-1</i> preceding the insider trades;
<i>SIZE</i>	the log of firm <i>j</i> 's market capitalization (in \$ thousands) at the end of fiscal year <i>t-1</i> preceding the insider trades;
<i>RD</i>	indicator variable equaling 1 if firm <i>j</i> reports research and development expenses for fiscal year <i>t-1</i> preceding the insider trades, and 0 otherwise;
<i>CLOSEHELD</i>	the percentage of firm <i>j</i> 's common shares that are closely held at the end of year <i>t-1</i> preceding the insider trades;
<i>RETLAG</i>	the market-adjusted cumulative return for firm <i>j</i> for year <i>t-1</i> preceding the insider trades;
<i>VOLATILITY</i>	the standard deviation of the residuals from a regression of firm <i>j</i> 's daily stock returns on the UK value-weighted market returns over year <i>t-1</i> preceding the insider trades; and
<i>IFRS</i>	an indicator variable equal to one for trades for firm <i>j</i> occurring under IFRS (i.e., years 2005 and 2006), and zero otherwise (i.e., years 2003 and 2004).

The dependent variable is *BHRET*, calculated as follows. For each insider purchase, we calculate the return measured across three windows, all beginning on the day following the insider trade: one-month, three-month, and six-month. We choose longer versus short-term (e.g., 3-day) return windows to better capture private information likely having longer-term value implications. For each insider trade, we then subtract the stock market return for the Datastream

Total UK Index,<sup>5</sup> calculated over the same window to arrive at a trade-specific abnormal return. Finally, we aggregate all insider trades for a given fiscal year, weighting the trades by the relative shares transacted, to derive a firm-level cumulative abnormal return to total insider trades.<sup>6</sup>

Equation (1) includes control variables for previously documented determinants of profitability to insider trading. *BUYSIZE* measures firm-level insider purchasing intensity during a fiscal year, with a positive predicted sign arising from two reasons. First, insiders will want to maximize their trading profits by engaging in larger purchases when anticipating good news of a larger magnitude. Second, *BUYSIZE* likely exhibits a negative correlation with firm size, as insider purchases tend to be more profitable in smaller firms (Lakonishok and Lee 2001). As prior research documents that more profitable trades occur for smaller firms, the predicted coefficient for *SIZE* is negative. We include the book-to-market ratio (*BM*) and past returns (*RETLAG*) because insiders have been shown to exhibit contrarian buying behavior and to successfully take advantage of possible undervaluation of their firm's stock as captured by high book-to-market ratio and poor recent stock performance (Rozeff and Zaman 1998; Piotroski and Roulstone 2005). Accordingly, we expect the coefficient for *BM* to be positive, and that for *RETLAG* to be negative. Note that *BM*, *SIZE*, and *RETLAG* also control for risk factors not captured by our market-level adjustment of the dependent variable.

We include further control variables as accounting- and governance-based proxies for information asymmetry between firm insiders and outsiders. We include *RD*, and predict a positive coefficient because Aboody and Lev (2000) document that insider purchases precede

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<sup>5</sup> The Datastream Total UK Index represents a subset of the FTSE All Share Index, capturing 99.7% in terms of market capitalization as of December 31, 2008.

<sup>6</sup> By aggregating trades to the firm level, this construct reduces over-fitting data due to multiple trades by insiders occurring during the year. As such, use of a firm-level trading measure provides a more conservative construct.

larger positive abnormal returns in firms that engage in R&D activities. We also include *CLOSEHELD*, because firms with a greater proportion of their shares held by insiders or large blockholders are likely to have more opaque information environments; accordingly, we predict a positive coefficient. Finally, we include the firm's idiosyncratic volatility (*VOLATILITY*) as another determinant of insiders' opportunity to trade profitably in their own stock (Huddart and Ke 2007). Insiders can take advantage of their private information in stocks that exhibit greater volatility by timing their purchases on days when stock prices are relatively lower, leading to a predicted positive coefficient.

Our experimental variable is *IFRS*, an indicator variable equal to one for trades occurring during the IFRS reporting regime (i.e., for 2005 and 2006), and zero otherwise (i.e., for 2003 and 2004 under UK domestic standards). If IFRS serves to improve comparability of information across firms, both within the UK and across all other countries adopting IFRS, then the predicted sign is negative. That is, IFRS adoption will reduce insiders' informational advantage by improving comparability, and thus reduce insiders' ability to profit from their purchases.

### ***Abnormal returns to analyst recommendation upgrades***

Next, we examine the profitability of analyst recommendation upgrades using a regression analysis similar to equation (1), except we replace the previous dependent variable of *BHRET* with *BHRET\_ARU*, the buy-and-hold return to analyst recommendation upgrades.<sup>7</sup> We identify analyst recommendation upgrades by comparing a given analyst recommendation to the previous recommendation issued by the same analyst for the same firm. We define as upgrades those recommendations that either: (i) are both more favorable than the previous issued

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<sup>7</sup> We use upgrades in analyst recommendations (versus levels or reiterations) because upgrades are more closely related to the acquisition of private information notion we wish to proxy for. Nonetheless, results are similar when we alternatively define the dependent variable to be abnormal returns to analyst buy recommendations.



recommendation, and have at least a “Hold” recommendation; or (ii) first-time recommendations that are designated as a “Buy” or “Strong Buy.” *BHRET\_ARU* is calculated similar to the previous *BHRET* variable as follows. For each analyst recommendation upgrade, we calculate the return measured across three windows, all beginning on the day following the upgrade: one-month, three-month, and six-month. For each return, we then subtract the stock market return for the Datastream Total UK Index, calculated over the same window to arrive at an upgrade-specific abnormal return. Finally, we aggregate all analyst recommendation returns for a given fiscal year, weighting the recommendations by the relative magnitude of the upgrade, to derive a firm-level cumulative abnormal return to total analyst upgrades.<sup>8</sup>

As in equation (1), our primary variable of interest remains *IFRS*, an indicator variable equal to one during the IFRS reporting regime (i.e., 2005 and 2006), and zero otherwise (i.e., 2003 and 2004). If IFRS improves comparability of information across firms, both within the UK and across all other countries adopting IFRS, then the predicted sign is negative. That is, IFRS adoption will reduce analysts’ informational advantage by improving comparability, and thus reduce the profitability of their stock recommendations.

Except for the exclusion of *BUYSIZE*, all the independent variables in our analysis of recommendation upgrades are the same as in equation (1), with the same predicted signs. The inclusion of those variables is predicated on the idea that analysts are informed agents whose recommendation upgrades are more likely to be profitable in stocks (i) which are undervalued by the market and (ii) whose information environment is less transparent.

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<sup>8</sup> To weight the recommendation upgrades, we use a scale ranging from 1 (“Strong Buy”) to 5 (“Strong Sell”). Thus, an upgrade from 3 (“Hold”) to 2 (“Buy”) receives a weight of one, whereas an upgrade from 4 (“Sell”) to 2 (“Buy”) receives a weight of two.

## 4. Sample selection, descriptive statistics, and empirical results

### *Sample selection and descriptive statistics*

Table 1 Panel A provides our sample selection. For our primary sample, we begin with all firms listed on UK stock exchanges during the period 2003–2006. We use this sample period to have a balanced set of years before versus after mandatory IFRS adoption: accordingly, there are two years in the pre-IFRS period (2003 and 2004), and two years in the post-IFRS period (2005 and 2006). We end the sample period at 2006 to minimize the effects of the financial crisis and associated stock market declines, which could directly affect our market-based measures (see Figure 1).<sup>9</sup> We eliminate firms that do not adopt IFRS by 2006, do not have any fiscal year with insider purchases (per Directors Deals database), lack sufficient financial and market data for the analyses, and do not have observations in both the pre- and post-IFRS periods. This leads to a final sample of 663 firms, with 2,616 firm-year observations. We obtain financial data from Worldscope, market data from Datastream, and analyst data from IBES.

Panel B compares our sample firms to the full population of UK firms. The sample firms are larger and more profitable than the UK population. The primary driver of this difference is likely to be our requirement that firms adopt IFRS by 2006. Firms listed on the AIM Exchange—which tend to be smaller companies—were not required to adopt until 2007. Panel C presents the industry composition based on the Fama-French 12-industry classification, with service industries (e.g., financial services, wholesale and retail) being the most represented.

Table 2 provides descriptive statistics. In Panel A, we present statistics at the insider trade level. There are on average 1.667 (1.404) insiders purchasing (selling) stock per firm-year in our sample. In absolute value, the average amount purchased by insiders (£198,835) is

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<sup>9</sup> Of note, Figure 1 indicates that overall market performance in the UK actually increased throughout our sample period of 2003–2006. This should bias against finding evidence that returns to insider trades/analyst recommendations decrease following mandatory IFRS adoption effective 2005.

significantly smaller than the average amount sold (£1,450,529). The difference is less pronounced when transactions are scaled by shares outstanding (0.10% for purchases compared to 0.34% for sales), which suggests that purchases tend to occur in relatively smaller firms. While the higher volume of insider selling relative to insider purchasing is directionally consistent with US data, the ratio of purchases to sales is significantly higher than in the US (e.g., Lakonishok and Lee 2001). In Panel B we present statistics at the analyst level. Conditioned upon a firm being followed by at least one analyst, the mean number of analyst recommendation upgrades (downgrades) is 4.239 (2.427) in our sample. The average recommendation is between “Hold” and “Buy”, which does not appear to be particularly skewed towards favorable recommendations. In Panel C (D) we present statistics for the firm level observations used in the multivariate insider trading (analyst recommendation) analyses. In both panels, insider purchases and analyst recommendation upgrades are more informative than insider sales and analyst recommendation downgrades, respectively. For instance, the mean 3-month return following insider purchases is 3.00%, versus 0% for insider sales over a comparable window. Hence, the univariate statistics support our focus on insider purchases and analyst recommendation upgrades.

### ***Empirical results – abnormal returns to insider purchases***

Table 3 presents abnormal returns to insider purchases. Panel A presents univariate results, comparing abnormal buy-and-hold returns (*BHRET*) to purchases occurring in the pre-IFRS period to those in the post-IFRS period. Returns are calculated for three measurement windows: columns (1) and (2) use a 1-month window; columns (3) and (4) use a 3-month window; and columns (5) and (6) use a 6-month window. Consistent with expectations,

abnormal returns pre-IFRS are higher relative to those in the post-IFRS period. Using mean values, abnormal returns decrease after IFRS adoption from 2.08% to 0.68% for the 1-month return window, 4.01% to 1.23% for the 3-month window, and 6.75% to 2.09% for the 6-month window. These differences are all significant at the less than 1% level.<sup>10</sup>

Panel B of Table 3 presents results from the multivariate analysis. The dependent variable remains the abnormal buy-and-hold return to insider purchases (*BHRET*). Focusing on the 1-month window analysis, column (1) presents results including only the control variables. As predicted, abnormal returns are increasing in the relative size of the purchase (coefficient on *BUYSIZE* = 2.426, *t*-stat = 5.53) and in the stock return volatility (coefficient on *VOLATILITY* = 0.723, *t*-stat = 2.19), and decreasing in the size of the firm (coefficient on *SIZE* = -0.002, *t*-stat = -1.80). The remaining variables are insignificant. Column (2) then presents results including our experimental variable, *IFRS*. Results on several control variables are weaker, but the inferences are otherwise unchanged. The coefficient on *IFRS* is negative and significant (-0.012, *t*-stat = -4.64), consistent with expectations.

Results are similar using a 3-month return window in columns (3) and (4), or a 6-month return window in columns (5) and (6). The coefficients on the control variables are similar, except the coefficients on both book-to-market (*BM*) and lagged return (*RETLAG*) are now significantly positive and negative, respectively. Turning to the experimental variable, the coefficient on *IFRS* remains significantly negative in both the 3-month window (-0.026, *t*-stat = -5.98) and the 6-month window (-0.042, *t*-stat = -5.67).

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<sup>10</sup> Median values are equal to zero because there is a significant number of firm-years with no insider purchases, in spite of our sample selection criteria. However, our results are not driven by a reduction in insider purchasing activity around IFRS adoption: untabulated tests indicate that excluding firm-years with no insider purchase does not affect our inferences.

### ***Empirical results – abnormal returns to analyst recommendation upgrades***

Table 4 presents abnormal returns to analyst recommendation upgrades, with Panel A providing univariate results. The dependent variable is now the abnormal buy-and-hold returns to analyst recommendation upgrades (*BHRET\_ARU*). As previously, returns are calculated for three windows: 1-month in columns (1) and (2); 3-month in columns (3) and (4); and 6-month in columns (5) and (6). Consistent with the Table 3 results, abnormal returns are reduced following mandatory IFRS adoption. Specifically, abnormal returns to analyst recommendation upgrades decrease from 1.28% to 0.60% in the 1-month return window, 2.94% to 0.83% in the 3-month window, and 5.33% to 1.50% in the 6-month window. All differences are significant at the less than 5% level.

Panel B of Table 4 presents results for the multivariate analysis. Focusing on the 1-month window, column (1) presents results with only the control variables included. The coefficient on *RETLAG* is significantly negative ( $-0.008$ ,  $t$ -stat =  $-2.00$ ), and that on *VOLATILITY* is marginally significantly positive ( $0.660$ ,  $t$ -stat  $1.48$ ). The remaining control variables are insignificant. Column (2) presents results including the experimental variable, *IFRS*; the coefficient is significantly negative ( $-0.007$ ,  $t$ -stat =  $-2.41$ ), as predicted.

Results are similar using the 3-month and 6-month windows to measure the returns. The control variables inferences are similar, except the coefficients on *BM* and *SIZE* are now significantly positive and negative, respectively. Focusing on the experimental variable, the coefficient on *IFRS* is significantly negative in both the 3-month window ( $-0.020$ ,  $t$ -stat =  $-3.48$ ) and 6-month window ( $-0.029$ ,  $t$ -stat =  $-2.83$ ).

To the extent the UK setting isolates a group of firms in which information quality is unlikely to change upon IFRS adoption, the reduction in abnormal returns to both insider

purchases and analyst recommendation upgrades is consistent with improvements to financial statement comparability that coincides with mandatory IFRS adoption reducing the amount of private information these users are able to exploit.

## **5. Analyses using firm partitions**

We now examine several firm partitions to better identify subsamples of our UK firms most likely to be affected by comparability versus changes in information quality. We examine three partitions: low versus high *ex-ante* information quality; low versus high level of reconciling items between UK standards and IFRS using data from Horton and Serafeim (2010); and low versus high increases in comparability using an industry-level construct from DeFond et al. (2011).

### ***Partitioning firms on ex-ante information quality***

We examine firms partitioned into those having high versus low *ex ante* information quality. That is, even in a country setting such as the UK, in which firms' financial reports have high *average* information quality, there is likely firm-level variation. This variation can arise due to the nature of the firms' operations (i.e., how well the accounting system captures the related economic phenomena), or due to the implementation of the reporting system by the firm. Thus, we seek to identify a sub-sample of UK firms likely to have very high information quality. For this latter sample, we assume that observed changes in abnormal returns upon IFRS adoption are more likely attributable to changes in comparability (versus changes in information quality).

To proxy for *ex ante* information quality, we employ two measures: the existence of R&D, and the level of accruals. Insiders of firms engaging in R&D are more likely to have

private information, reflecting insights into the future outcomes of highly uncertain research efforts. Insiders of firms with high levels of accruals similarly are more likely to have private information regarding the economic sources of these accruals (Beneish and Vargus 2002). Accordingly, we designate as *ex ante* high information quality those firms having no R&D or having the lowest quartile of accruals, where accruals are measured as the absolute difference between cash flow from operations and net income, scaled by total assets. We designate as *ex ante* low information quality those firms having positive R&D or having the highest quartile accruals. If information quality is high for the subsample of firms having no R&D or low accruals, any observed change in abnormal returns to insider purchases is more likely due to changes in comparability versus information quality.<sup>11</sup>

Table 5 presents results to these sample partitions. The dependent variable is *BHRET*, the abnormal buy-and-hold return to insider purchases. We present results measuring abnormal returns for both 3-month and 6-month windows; (untabulated) inferences using 1-month windows are unchanged. Columns (1) through (4) present results using the R&D/non-R&D partition; columns (5) through (8) present those using the low/high accrual quartile partition. Columns are paired to estimate stacked regressions; e.g., columns (1) and (2) represent stacked regressions of the R&D and non-R&D observations using the 3-month window.

We first focus on column (1) for firms reporting R&D (i.e., firms expected to have *ex ante* low information quality). Among the control variables, abnormal returns to insider purchases are increasing in the size of the purchase (coefficient on *BUYSIZE* = 4.447, *t*-stat = 2.63) and volatility (coefficient on *VOLATILITY* = 1.797, *t*-stat = 1.74), and decreasing in lagged

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<sup>11</sup> We also partition our sample firm-years into those reporting losses (i.e., low quality information environments) versus those not reporting losses (i.e., high quality information environments). Untabulated inferences remain consistent: even for firms not reporting losses (i.e., the high quality information environment firms), we continue to observe significantly reduced abnormal returns to insider purchases.

returns (coefficient on *RETLAG* =  $-0.027$ ,  $t$ -stat =  $-3.20$ ). The coefficient on *IFRS* is also significantly negative ( $-0.038$ ,  $t$ -stat =  $-4.26$ ); this latter is consistent either with benefits arising from improved comparability, or with improvements in information quality (as this subsample of UK firms has *ex ante* low information quality).

However, our primary interest lies in column (2), which presents results for firms reporting no R&D (i.e., firms expected to have *ex ante* high information quality). Among the control variables, only the coefficient on *BUYSIZE* is significantly positive as predicted ( $2.293$ ,  $t$ -stat =  $2.70$ ). Of note, the coefficient on *IFRS* is again significantly negative ( $-0.021$ ,  $t$ -stat =  $-4.09$ ). This suggests that even for firms with very high information quality (i.e., those having no R&D), abnormal returns to insider purchases are reduced following mandatory IFRS adoption.

Columns (3) and (4) present the results to the R&D/non R&D partition using the 6-month window. Results are consistent with those reported above. Column (4), which presents results for the non-R&D (i.e., high information quality) firms, reveals that the coefficient on *IFRS* remains significantly negative ( $-0.033$ ,  $t$ -stat =  $-3.75$ ). Columns (5) and (6) present partitions based on high/low accrual quartiles using the 3-month return window. Column (6), which presents results for the low accrual (i.e., high information quality) firms, again shows the coefficient on *IFRS* to be significantly negative ( $-0.016$ ,  $t$ -stat =  $-2.21$ ). Finally, columns (7) and (8) partition firms by high/low accrual quartile using a 6-month return window. Column (8), which presents results for the low accrual firms, reveals the coefficient on *IFRS* is significantly negative ( $-0.029$ ,  $t$ -stat =  $-2.36$ ).

In addition, we also conduct the Table 5 analyses replacing the dependent variable of abnormal returns to insider purchases with the dependent variable of abnormal returns to analyst recommendation upgrades. Results are similar to those reported.



To the extent the non-R&D and low accrual UK subsamples better isolate firms unlikely to experience improvements in information quality from IFRS adoption, the results are again consistent with improvements in financial statement comparability.

***Partitioning firms on amount of reconciling items between UK standards and IFRS***

To further assess the robustness of our results, we conduct an alternative firm partition. Specifically, we use data from Horton and Serafeim (2010) to partition our sample of UK firms into those having low versus high amounts of reconciling items. The reconciliation data consists of the magnitude and major line items reported by UK firms in their reconciliations from UK domestic GAAP to IFRS, which were necessary to provide comparative amounts for prior year data on the first year of mandatory IFRS adoption. We designate firms as having low (high) reconciling items if the absolute magnitude of their total balance sheet reconciliation scaled by market capitalization is below (above) our sample median. A low level of reconciling items between UK standards and IFRS is further evidence of firms in which changes to the information environment upon mandatory IFRS adoption are unlikely to reflect changes in information quality. Rather, such changes are likely driven by changes in comparability.

Results examining abnormal returns to insider purchases for these two groups of firms are reported in Table 6. Following our above discussion, our focus is on the “low reconciling items” subsample in columns (1) and (3). The table reveals that even for firms reporting low levels of reconciling items, we continue to observe that abnormal returns to insider purchases are reduced following mandatory IFRS adoption. Specifically, the coefficient on IFRS is significantly negative in column (1) for the 3-month window ( $-0.041$ ,  $t$ -stat =  $-4.92$ ), as well as in column (3) for the 6-month window ( $-0.064$ ,  $t$ -stat =  $-4.49$ ).

### *Partitioning firms on change in financial statement comparability*

We now employ an industry-level measure of the change in financial statement comparability using a proxy developed by DeFond et al. (2011), calculated as follows. The proxy is a ratio, representing the increase in the pool of peer firms using the same set of standards, calculated for each 2-digit SIC industry group in our sample. The numerator of this ratio is the number of UK firms plus the number of firms in other E.U. countries, which report under IFRS by 2006. The denominator of this ratio is the number of UK firms. We designate firms as experiencing a low (high) increase in comparability if their industry is in the bottom (top) tercile of the percentage increase in comparable peers. We expect to see a larger reduction in insiders' and analysts' information advantage for UK firms in industries with the largest increase in comparability.

Results examining abnormal returns to insider purchases and analyst recommendation upgrades for these two groups of firms are reported in Table 7. The table indicates that the decrease in the profitability of insider purchases and analyst recommendation upgrades is greater among firms that experience a larger increase in financial statement comparability due to IFRS adoption. We focus first on columns (1) and (2), which present returns to insider purchases over 3-month return windows. The coefficient on *IFRS* for firms having a high increase in comparability is significantly negative ( $-0.035$ ,  $t\text{-stat} = -4.44$ ); of note, it is also significantly more negative than the coefficient on *IFRS* for firms having a low increase in comparability ( $F\text{-test} = 4.48$ ,  $p\text{-value} < 0.05$  for the difference). We observe a similar pattern for analyst recommendation upgrades: the coefficient on *IFRS* is significantly negative for firms having a high increase in comparability ( $-0.025$ ,  $t\text{-stat} = -2.64$ ), though insignificant for firms having a

low increase in comparability ( $-0.009$ ,  $t$ -stat =  $-0.80$ ). However, the difference is insignificant ( $F$ -test = 1.18). Untabulated results for 1- and 6-month return windows are qualitatively similar.

## 6. Sensitivity analyses

### *Insider sales and analyst recommendation downgrades*

We next examine insider sales and analyst recommendation downgrades to assess the full distribution of insider trading activity and analyst reports. However, *a priori* we expect weaker results in these settings, as discussed below.

Our primary analyses focus on insider purchases, as prior literature suggests insider purchases are more informative than sales; accordingly, we expect that insider purchases reflect more private information than insider sales. Nonetheless, we now investigate abnormal returns to insider sales: the dependent variable is *BHRET\_SALE*, the buy-and-hold return to insider sales, calculated similarly as the previous *BHRET*. The results, presented in Columns (1) and (2) of Table 8, fail to provide evidence that mandatory IFRS adoption reduces abnormal returns to insider sales. In fact, the coefficient on *IFRS* is positive in the 3-month ( $0.006$ ,  $t$ -stat = 1.78) and insignificant in the 6-month ( $0.006$ ,  $t$ -stat = 1.16) regressions. Untabulated univariate statistics reveal that abnormal returns to insider sales prior to IFRS are actually negative, suggesting that insiders (on average) lost money in such trades prior to IFRS. Thus, the marginally positive coefficient on *IFRS* in the 3-month window is not suggestive of positive profits; but rather, of insider sales moving from negative profits to near zero profits.

Our primary analyses also focus on analyst recommendation upgrades, as we expect that analyst recommendation upgrades have more information content than analyst recommendation downgrades. Nonetheless, we now examine abnormal returns to analyst recommendation

downgrades: the dependent variable is *BHRET\_ARD*, the buy-and-hold returns to analyst recommendation downgrades, calculated similarly as the previous *BHRET\_ARU*. The results, presented in Columns (3) and (4) of Table 8, reveal that the coefficient on *IFRS* is negative but insignificant in the 3-month window ( $-0.001$ ,  $t$ -stat =  $-0.31$ ), and significantly negative in the 6-month window ( $-0.016$ ,  $t$ -stat =  $-2.17$ ). Thus, results are consistent with our primary analyses in Table 4 using analyst recommendation upgrades, but of a lower magnitude.

### *Staggered adoption*

One potential concern regarding our inferences (as well as inferences from other papers that examine changes in the information environment pre- and post-IFRS adoption) is that contemporaneous events could affect our results. For instance, Christensen et al. (2011) provide evidence consistent with the implementation of the EU Market Abuse Directive (effective 2005) improving market liquidity and leading to a lower cost of capital.

To mitigate these concerns, we exploit the staggered adoption of IFRS among mandatory adopters in the UK that arises from differences in fiscal year ends. This staggered adoption naturally partitions firms into subsets that adopt IFRS at different points in calendar time.<sup>12</sup> Thus, staggered adoption mitigates concerns that observed results are confounded by other (non-IFRS) contemporaneous events.<sup>13</sup>

For non-December year end firms, we partition insider purchases into three calendar time periods: (i) pre-2005 (when the firm is reporting under UK standards); (ii) after January 1, 2005 through the firm's fiscal year end (when the firm still retains UK standards); and (iii) after the

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<sup>12</sup> To be specific, firms having a non-December fiscal year end would retain UK domestic standards for a portion of calendar year 2005. For example, a June fiscal year end company would retain UK GAAP through June 2005, and then switch to IFRS effective July 2005.

<sup>13</sup> See Christensen et al. (2011) for a detailed discussion.

firm's fiscal year end in 2005 (when the firm transitions to IFRS). We re-estimate our univariate analyses and observe that abnormal returns to insider purchases are reduced only subsequent to IFRS adoption. Specifically, there is no evidence that returns to purchases executed during period (i) versus (ii) are statistically different. In contrast, there is a significant decrease in returns from purchases executed during period (ii) versus period (iii), when IFRS is finally adopted.

To further assess whether our results relate specifically to IFRS adoption, we induce a pseudo-transition date of June 30, 2005 for December fiscal year end firms that had already adopted IFRS at the beginning of the calendar year. If our results relate to IFRS adoption, we should not observe changes in insider trading informativeness around this pseudo-transition date. For December year end firms, we partition insider purchases into those executed in three calendar time periods: (i) pre-2005 (under UK standards); (ii) between January 1 through June 30, 2005 (under IFRS standards); and (iii) after June 30, 2005 (still under IFRS standards). In contrast to results for non-December year end firms, we do not observe any (spurious) change in returns between periods (ii) and (iii). However, consistent with results in Tables 3 – 7, we do observe a decrease in returns following insider purchases around the time of actual IFRS adoption (i.e., period (ii) returns are lower than those in period (i)). Together, these results suggest that changes in returns to insider purchases appear to coincide with firms' specific adoption of IFRS. This mitigates concerns that other events may influence our inferences.

### *Changing the benchmark return*

All of our primary analyses use abnormal returns as the dependent variable, and include controls for risk such as book-to-market, size, and volatility. However, it is possible to alternatively compute the dependent variable to explicitly incorporate risk. Accordingly, we alternatively measure our dependent variable of abnormal returns by incorporating market capitalization, book-to-market, and industry as a benchmark for expected returns. Results are qualitatively similar to those reported.

## **7. Conclusion**

This paper examines the effect of mandatory IFRS adoption on financial statement comparability. To isolate the effects of comparability, we use firms domiciled in the UK as our setting. Prior academic and practitioner research argues that UK domestic standards are similar to those under IFRS. Thus, any effects of changing to IFRS for UK firms are more likely driven by changes in comparability of financial statements (such as between UK firms and non-UK firms) versus changes in information quality. To proxy for changes in the information environment, we use two measures: abnormal returns to insider purchases of stock, and abnormal returns to analyst recommendation upgrades. Both insiders and analysts represent sophisticated users likely to possess private information regarding the firm. If IFRS reduces private information by enhancing the comparability of financial statements, we predict that abnormal returns to insider purchases and analyst recommendation upgrades will be reduced following mandatory IFRS adoption in the UK. Empirical results are consistent with these expectations. We find that abnormal returns to both insider purchases as well as analyst recommendation

upgrades decrease following IFRS adoption. These findings occur in univariate and multivariate analyses, and across 1-month, 3-month, and 6-month return windows.

To provide further robustness, we examine alternative partitions of firms to better isolate firms most likely affected by changes in comparability versus changes in information quality upon mandatory IFRS adoption. We define three groups of firms most likely affected by changes in comparability as: (i) those having *ex ante* high quality information environments (i.e., no R&D or low accruals); (ii) those having low amounts of reconciling items between UK standards and IFRS using data from Horton and Serafeim (2010); and (iii) those having high increases in comparability based on the measure from DeFond et al. (2011). Across all three groups of firms, we continue to find lower abnormal returns to insider purchases/analyst purchase recommendations subsequent to mandatory IFRS adoption, again consistent with improvements to comparability.

We conclude that these results are consistent with mandatory IFRS adoption reflecting benefits attributable to improved comparability. These results build on the substantial literature investigating the effects of IFRS adoption, by documenting that improvements to the information environment extend beyond those relating to information quality. Restated, benefits to IFRS adoption are not limited to countries exhibiting large differences between domestic standards and IFRS, nor to firms exhibiting low information quality. Rather, improvements can also accrue in settings in which information quality is already high, and incumbent domestic standards are already similar to IFRS. These insights are likely of interest to continuing deliberations surrounding further IFRS adoption, including within the US and other countries.

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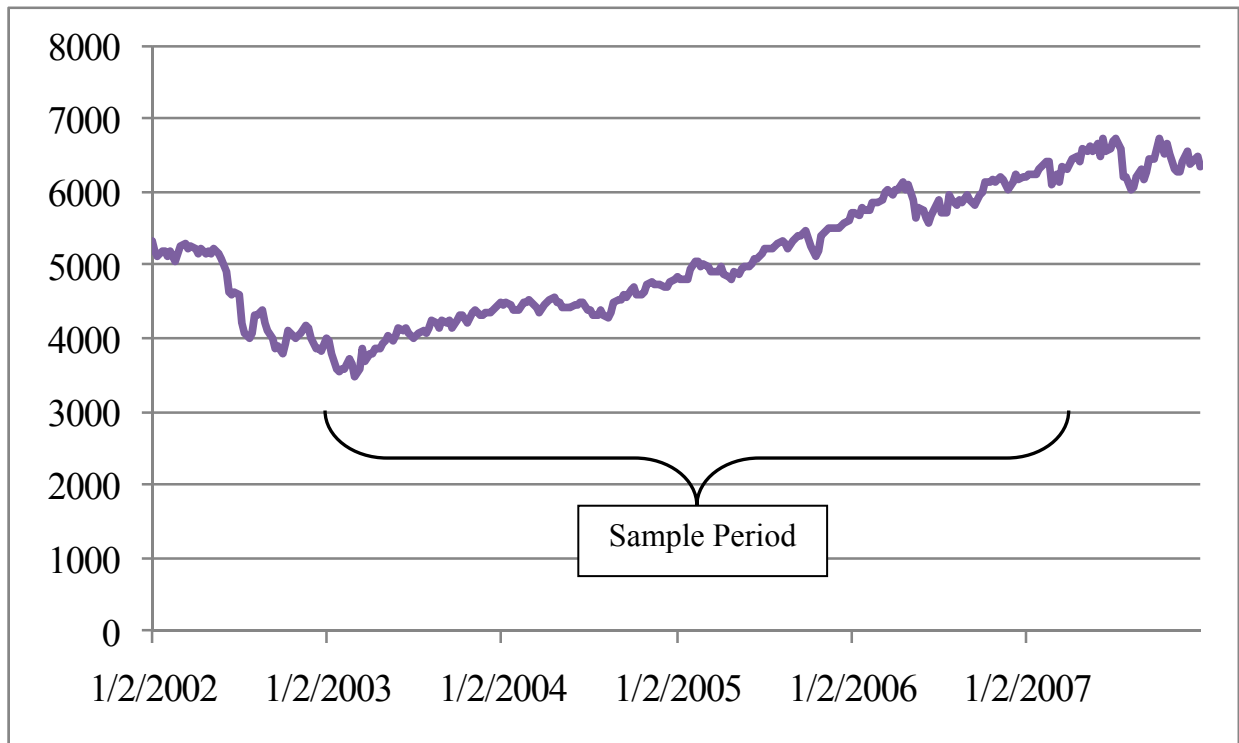
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FIGURE 1  
Performance of UK FTSE 100 Index, 2002–2007



**Notes:**

This figure presents the weekly UK FTSE index closing values over the period 2002 through 2007.

TABLE 1  
Sample selection

**Panel A.** Sample selection

	Unique Firms	Firm Years
All firms listed on UK stock exchanges	2,988	9,832
Less:		
firms that did not adopt IFRS by 2006	(1,796)	(5,647)
firms without insider purchases	(404)	(1,164)
firms lacking necessary financial or market data	(45)	(287)
firms without pre- and post-2005 data	(80)	(118)
<b>Final Sample</b>	<b>663</b>	<b>2,616</b>

**Panel B.** Comparison of sample firms to all UK firms

Variable	All UK Firms (N = 8,949)		Sample Firms (N = 2,616)		Difference	
	Mean	Median	Mean	Median	Mean	Median
Sales	1,068.380	18.705	2,744.870	249.046	< 0.001	< 0.001
Net Income	47.565	0.487	130.895	8.171	< 0.001	< 0.001
ROE	-1.644	0.012	-0.022	0.029	0.030	< 0.001
Total Assets	3,952.810	53.620	11,721.460	335.803	< 0.001	< 0.001
% firms with year-end of						
December	39.6 %		44.7		< 0.001	
non-December	60.4 %		55.3		< 0.001	

**Panel C: Industry composition of sample firms**

Fama-French 12-Industry Classification	Firms	Firm-Years	% of Sample
01 – Consumer non-durables	45	179	6.84
02 – Consumer durables	12	48	1.83
03 – Manufacturing	50	197	7.53
04 – Energy	18	70	2.68
05 – Chemicals and allied products	18	71	2.71
06 – Business equipment	77	303	11.58
07 – Telecommunications	14	54	2.06
08 – Utilities	10	40	1.53
09 – Wholesale, retail	79	311	11.89
10 – Healthcare	32	126	4.82
11 – Finance	152	602	23.01
12 – Others	156	615	23.51
Total	663	2,616	100.00

This table presents our sample selection and descriptive data. Panel A presents the sample selection. We begin with all firms listed on UK stock exchanges. We then exclude firms that did not adopt IFRS by 2006, with no insider purchases per the Directors Deal database, lacking necessary financial and market data, and not having data for both the pre-IFRS and post-IFRS periods. Panel B compares the sample firms to all firms listed on UK stock exchanges. Panel C presents the industry composition.

TABLE 2  
Descriptive statistics

**Panel A.** Insider trade descriptive statistics

<b>Variable</b>	<b>Mean</b>	<b>Std</b>	<b>1Q</b>	<b>Median</b>	<b>3Q</b>
# insiders purchasing	1.667	1.900	0.000	1.000	2.000
# insiders selling	1.404	2.245	0.000	0.000	2.000
£ purchases (000s)	198.835	1,628.353	0.000	19.603	81.743
£ sales (000s)	1,450.529	10,474.060	0.000	0.000	566.312
Shares purchased divided by shares outstanding (written as 100.000%)	0.100	0.800	0.000	0.005	0.051
Shares sold divided by shares outstanding (written as 100.000%)	0.340	1.416	0.000	0.000	0.131

**Panel B.** Analyst recommendation descriptive statistics

<b>Variable</b>	<b>Mean</b>	<b>Std</b>	<b>1Q</b>	<b>Median</b>	<b>3Q</b>
# recommendation upgrades	4.239	4.364	1.000	3.000	6.000
# recommendation downgrades	2.427	3.318	0.000	1.000	4.000
Average recommendation (1 = Strong Buy 5 = Strong Sell)	2.442	0.661	2.000	2.462	2.900

**Panel C.** Variables – insider trade sample ( $N = 2,616$ )

<b>Variable</b>	<b>Mean</b>	<b>Std</b>	<b>1Q</b>	<b>Median</b>	<b>3Q</b>
Dependent Variables:					
<i>BHRET</i> (1 month)	0.016	0.037	-0.001	0.000	0.013
<i>BHRET</i> (3 month)	0.030	0.068	-0.004	0.000	0.032
<i>BHRET</i> (6 month)	0.051	0.192	0.000	0.000	0.098
<i>BHRET_SELL</i> (1 month)	0.001	0.041	0.001	0.000	0.000
<i>BHRET_SELL</i> (3 month)	0.000	0.079	0.004	0.000	0.000
<i>BHRET_SELL</i> (6 month)	-0.007	0.123	-0.000	0.000	0.000
Independent Variables:					
<i>BUYSIZE</i>	0.026	0.220	0.005	0.011	0.019
<i>BM</i>	1.622	2.589	0.546	1.058	1.877
<i>SIZE</i>	16.596	2.080	15.167	16.472	17.935
<i>RD</i>	0.304	0.460	0.000	0.000	1.000
<i>CLOSEHELD</i>	25.200	21.457	7.431	21.289	38.694
<i>RETLAG</i>	0.136	0.515	-0.137	0.062	0.308
<i>VOLATILITY</i>	0.066	0.006	0.063	0.064	0.067
<i>IFRS</i>	0.357	0.479	0.000	0.000	1.000

**Panel D.** Variables – analyst sample ( $N = 1,757$ )

<b>Variable</b>	<b>Mean</b>	<b>Std</b>	<b>1Q</b>	<b>Median</b>	<b>3Q</b>
Dependent Variables:					
<i>BHRET_ARU</i> (1 month)	0.010	0.062	-0.014	0.001	0.035
<i>BHRET_ARU</i> (3 month)	0.021	0.123	-0.027	0.006	0.065
<i>BHRET_ARU</i> (6 month)	0.038	0.212	-0.043	0.005	0.116
<i>BHRET_ARD</i> (1 month)	-0.000	0.060	-0.009	0.000	0.012
<i>BHRET_ARD</i> (3 month)	0.000	0.108	-0.019	0.000	0.019
<i>BHRET_ARD</i> (6 month)	0.002	0.171	-0.026	0.000	0.031
Independent Variables:					
<i>IFRS</i>	0.402	0.479	0.000	0.000	1.000
<i>BM</i>	1.259	1.513	0.547	0.921	1.560
<i>SIZE</i>	16.845	1.855	15.517	16.599	18.037
<i>RD</i>	0.359	0.480	0.000	0.000	1.000
<i>CLOSEHELD</i>	24.082	20.415	7.424	20.191	36.409
<i>RETLAG</i>	0.141	0.505	-0.135	0.062	0.317
<i>VOLATILITY</i>	0.066	0.005	0.063	0.064	0.067

This table presents the descriptive statistics. Panel A (B) presents descriptive statistics for insider trades (analyst recommendations). Panel C (D) presents those for variables used in our insider trade (analyst recommendation) analyses. All variables defined in Tables 3, 4 and 8.

TABLE 3  
Abnormal returns to insider purchases

Buy-Hold Return:	1-Month		3-Month		6-Month	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A.</b> Univariate analysis (dependent variable is <i>BHRET</i> )						
	Mean	Median	Mean	Median	Mean	Median
Pre-IFRS ( $N = 1,681$ )	0.0208	0.0000	0.0401	0.0000	0.0675	0.0000
Post-IFRS ( $N = 935$ )	0.0068	0.0000	0.0123	0.0000	0.0209	0.0000
Diff ( $p$ -value)	< 0.001	0.012	< 0.001	< 0.001	< 0.001	< 0.001
<b>Panel B.</b> Multivariate analysis (dependent variable is <i>BHRET</i> )						
Intercept (?)	-0.053 (-1.79) *	-0.042 (-1.42)	-0.097 (-1.95) *	-0.074 (-1.48)	-0.190 (-2.39) **	-0.153 (-1.92) *
<i>BUYSIZE<sub>jt</sub></i> (+)	2.426 (5.53) ***	2.422 (5.52) ***	2.604 (3.41) ***	2.594 (3.39) ***	3.848 (2.75) ***	3.832 (2.74) ***
<i>BM<sub>jt</sub></i> (+)	-0.000 (-0.44)	-0.000 (-0.62)	0.001 (1.00)	0.001 (0.86)	0.004 (1.67) **	0.004 (1.60) *
<i>SIZE<sub>jt</sub></i> (-)	-0.002 (-1.80) **	-0.001 (-1.44) *	-0.003 (-1.60) *	-0.002 (-1.21)	-0.005 (-1.77) **	-0.003 (-1.39) *
<i>RD<sub>jt</sub></i> (+)	0.002 (0.44)	0.002 (0.45)	-0.003 (-0.32)	-0.003 (-0.30)	0.006 (0.45)	0.006 (0.47)
<i>CLOSEHELD<sub>jt</sub></i> (+)	0.001 (0.04)	0.001 (0.16)	-0.001 (-0.61)	-0.001 (-0.48)	-0.001 (-0.04)	0.001 (0.08)
<i>RETLAG<sub>jt</sub></i> (-)	-0.003 (-0.96)	-0.004 (-1.40)	-0.008 (-1.65) **	-0.011 (-2.20) **	-0.012 (-1.60) *	-0.016 (-2.20) **
<i>VOLATILITY<sub>jt</sub></i> (+)	0.723 (2.19) **	0.525 (1.58) *	1.200 (2.13) **	0.777 (1.37) *	2.406 (2.65) ***	1.728 (1.89) **
<i>IFRS<sub>jt</sub></i> (-)		-0.012 (-4.64) ***		-0.026 (-5.98) ***		-0.042 (-5.67) ***
Fixed Effects	Industry	Industry	Industry	Industry	Industry	Industry
$N$	2,616	2,616	2,616	2,616	2,616	2,616
$Adjusted-R^2$	0.079	0.086	0.054	0.064	0.063	0.074

**Notes:**

This table presents abnormal returns to insider purchases. The sample includes UK firms that adopted IFRS in accordance with the 2005 EU directive. The sample period includes 2003–2006, where 2003–2004 is the pre-IFRS period, and 2005–2006 is the post-IFRS period. Panel A presents univariate results comparing abnormal returns across the pre- versus post-IFRS periods. Panel B presents multivariate results.



Across both panels, the dependent variable is *BHRET*, the abnormal buy-and-hold returns to insider equity purchases. Returns are calculated for three measurement windows: 1-month; 3-month; and 6-month. We calculate abnormal buy-and-hold returns using three steps. First, we measure the stock return to each insider purchase starting from the day following the insider trade until the end of the indicated window (i.e., 1-month, 3-month, or 6-month). Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all firm *j* insider trades for fiscal year *t*, weighting the trades by the relative shares transacted, to derive a firm-year cumulative abnormal return to total insider purchases.

Standards errors are clustered by firm. Untabulated industry fixed-effects are by 2-digit SIC code. \*\*\*, \*\*, and \* indicate significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

The independent variables are:

<i>BUYSIZE<sub>jt</sub></i>	the total number of shares purchased by insiders of firm <i>j</i> during year <i>t</i> divided by the number of shares outstanding at the end of year <i>t</i> ;
<i>BM<sub>jt</sub></i>	firm <i>j</i> 's book-to-market ratio, measured at the end of fiscal year <i>t-1</i> preceding the insider trades;
<i>SIZE<sub>jt</sub></i>	the log of firm <i>j</i> 's market capitalization (in \$ thousands) at the end of fiscal year <i>t-1</i> preceding the insider trades;
<i>RD<sub>jt</sub></i>	indicator variable equaling 1 if firm <i>j</i> reports research and development expenses for fiscal year <i>t-1</i> preceding the insider trades, and 0 otherwise;
<i>CLOSEHELD<sub>jt</sub></i>	the percentage of firm <i>j</i> 's common shares that are closely held at the end of year <i>t-1</i> preceding the insider trades;
<i>RETLAG<sub>jt</sub></i>	the market-adjusted cumulative return for firm <i>j</i> for year <i>t-1</i> preceding the insider trades;
<i>VOLATILITY<sub>jt</sub></i>	the standard deviation of the residuals from a regression of firm <i>j</i> 's daily stock returns on the UK value-weighted market returns over year <i>t-1</i> preceding the insider trades; and
<i>IFRS<sub>jt</sub></i>	an indicator variable equaling 1 if firm <i>j</i> reports under IFRS in year <i>t</i> , and 0 otherwise.

TABLE 4  
Abnormal returns to analyst recommendation upgrades

Buy-Hold Return:	1-Month		3-Month		6-Month	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A.</b> Univariate analysis (dependent variable is <i>BHRET_ARU</i> )						
	Mean	Median	Mean	Median	Mean	Median
Pre-IFRS ( $N = 1,077$ )	0.0128	0.0014	0.0294	0.0109	0.0533	0.0168
Post-IFRS ( $N = 680$ )	0.0060	0.0005	0.0083	0.0001	0.0150	0.0000
Diff ( $p$ -value)	0.017	0.783	< 0.001	0.042	< 0.001	< 0.001
<b>Panel B.</b> Multivariate analysis (dependent variable is <i>BHRET_ARU</i> )						
Intercept (?)	-0.034 (-0.96)	-0.025 (-0.69)	-0.166 (-2.02) **	-0.141 (-1.70) *	-0.438 (-3.06) ***	-0.402 (-2.78) **
$BM_{jt}$ (+)	0.001 (0.89)	0.001 (0.74)	0.006 (1.81) **	0.005 (1.65) *	0.015 (2.58) ***	0.014 (2.46) ***
$SIZE_{jt}$ (-)	-0.001 (-0.39)	-0.001 (-0.19)	-0.004 (-1.81) **	-0.003 (-1.54) *	-0.003 (-0.83)	-0.002 (-0.60)
$RD_{jt}$ (+)	-0.010 (-1.77)	-0.010 (-1.79)	-0.012 (-1.03)	-0.013 (-1.05)	-0.011 (-0.57)	-0.011 (-0.59)
$CLOSEHELD_{jt}$ (+)	0.001 (0.41)	0.000 (0.49)	-0.001 (-0.44)	-0.001 (-0.35)	0.001 (0.80)	0.001 (0.89)
$RETLAG_{jt}$ (-)	-0.008 (-2.00) **	-0.009 (-2.23) **	-0.017 (-2.12) **	-0.019 (-2.42) ***	-0.037 (-2.49) ***	-0.041 (-2.69) ***
$VOLATILITY_{jt}$ (+)	0.660 (1.48) *	0.500 (1.11)	1.165 (1.10)	0.721 (0.68)	5.014 (2.70) ***	4.364 (2.32) **
$IFRS_{jt}$ (-)		-0.007 (-2.41) ***		-0.020 (-3.48) ***		-0.029 (-2.83) ***
Fixed Effects	Industry	Industry	Industry	Industry	Industry	Industry
$N$	1,757	1,757	1,757	1,757	1,757	1,757
$Adjusted-R^2$	0.044	0.047	0.049	0.054	0.069	0.073

**Notes:**

This table presents abnormal returns to analyst recommendation upgrades. The sample includes UK firms that adopted IFRS in accordance with the 2005 EU directive. The sample period includes 2003–2006, where 2003–2004 is the pre-IFRS period, and 2005–2006 is the post-IFRS period. Panel A presents univariate results comparing abnormal returns across the pre- versus post-IFRS periods. Panel B presents multivariate results.

Across both panels, the dependent variable is *BHRET\_ARU*, abnormal buy-and-hold returns to analyst recommendation upgrades. We define as upgrades those recommendations that either: (i) are both more favorable than the previously issued recommendation, and have at least a “Hold” recommendation; or (ii) first-time recommendations that are designated as a “Buy” or “Strong Buy.” Returns are calculated for three measurement windows: 1-month; 3-month; and 6-month. We calculate abnormal buy-and-hold returns using three steps. First, we measure the stock return to each analyst recommendation upgrade from the day following the recommendation’s disclosure until the end of the indicated window (i.e., 1-month, 3-month, or 6-month). Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all recommendation upgrades across analysts for firm  $j$  for year  $t$  to derive a firm-year cumulative abnormal return to analyst recommendation upgrades.

Standards errors are clustered by firm. Untabulated industry fixed-effects are by 2-digit SIC code. \*\*\*, \*\*, and \* indicate significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

All other variables are defined in Table 3.

TABLE 5

Analyses using firm partitions: abnormal returns to insider purchases for firms having low versus high information quality

Buy-Hold Return:	R&D versus No R&D				High Accrual versus Low Accrual			
	3-Month		6-Month		3-Month		6-Month	
	Low Quality: R&D	High Quality: No R&D	Low Quality: R&D	High Quality: No R&D	Low Quality: High Accrual	High Quality: Low Accrual	Low Quality: High Accrual	High Quality: Low Accrual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-0.136 (-1.57)	0.054 (0.78)	-0.209 (-1.27)	0.041 (0.41)	-0.053 (-0.41)	0.147 (1.69) *	-0.177 (-1.00)	0.181 (1.31)
<i>BUYSIZE<sub>jt</sub></i> (+)	4.447 (2.63) ***	2.293 (2.70) ***	5.778 (1.71) **	3.418 (2.24) **	2.238 (1.98) **	2.458 (1.71) **	3.303 (1.69) **	3.528 (1.83) **
<i>BM<sub>jt</sub></i> (+)	0.002 (0.98)	0.000 (0.26)	0.004 (0.82)	0.004 (1.51) *	0.009 (1.60) *	0.001 (0.72)	0.020 (2.50) ***	0.001 (0.79)
<i>SIZE<sub>jt</sub></i> (-)	-0.002 (-0.67)	-0.002 (-1.05)	-0.004 (-0.74)	-0.004 (-1.34) *	-0.001 (-0.16)	-0.004 (-1.26)	0.005 (0.86)	-0.011 (-2.43) ***
<i>R&amp;D<sub>jt</sub></i> (+)					0.020 (1.22)	-0.018 (-0.69)	0.034 (1.64) *	0.006 (0.19)
<i>CLOSEHELD<sub>jt</sub></i> (+)	-0.001 (-0.33)	-0.001 (-0.64)	0.001 (0.56)	-0.001 (-0.75)	-0.001 (-0.25)	-0.001 (-1.85)	0.001 (0.74)	-0.001 (-1.50)
<i>RETLAG<sub>jt</sub></i> (-)	-0.027 (-3.20) ***	-0.004 (-0.61)	-0.040 (-2.90) ***	-0.006 (-0.61)	-0.024 (-2.46) ***	-0.030 (-2.27) **	-0.028 (-2.05) **	-0.023 (-1.23)
<i>VOLATILITY<sub>jt</sub></i> (+)	1.797 (1.74) **	0.222 (0.31)	2.739 (1.50) *	1.252 (1.15)	0.656 (0.67)	-0.162 (-0.18)	1.238 (0.77)	1.266 (0.73)
<i>IFRS<sub>jt</sub></i> (-)	-0.038 (-4.26) ***	-0.021 (-4.09) ***	-0.064 (-4.33) ***	-0.033 (-3.75) ***	-0.048 (-3.87) ***	-0.016 (-2.21) **	-0.073 (-3.56) ***	-0.029 (-2.36) ***
Fixed Effects	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry
<i>N</i>	794	1,822	794	1,822	647	645	647	645
<i>Adjusted-R<sup>2</sup></i>	0.095	0.079	0.100	0.096	0.127	0.129	0.137	0.167

**Notes:**

This table presents abnormal returns to insider purchases across firms partitioned by low versus high information quality. We designate as low information quality those firms reporting positive R&D in columns (1) and (3), or having top-quartile accruals in columns (5) and (7). We designate as high information quality those firms reporting no R&D in columns (2) and (4), or bottom-quartile accruals in columns (6) and (8). Across all columns, the sample includes UK firms that adopted IFRS in accordance with the 2005 EU directive. The sample period includes 2003–2006, where 2003-2004 is the pre-IFRS period, and 2005-2006 is the post-IFRS period.

Across all columns, the dependent variable is *BHRET*, abnormal buy-and-hold returns to insider equity purchases. Returns are calculated for two measurement windows: 3-month and 6-month. We calculate abnormal buy-and-hold returns using three steps. First, we measure the stock return to each insider purchase starting from the day following the insider trade until the end of the indicated window (i.e., 3-month, or 6-month). Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all firm  $j$  insider trades for fiscal year  $t$ , weighting the trades by the relative shares transacted, to derive a firm-year cumulative abnormal return to total insider purchases.

Standards errors are clustered by firm. Untabulated industry fixed-effects are by 2-digit SIC code. \*\*\*, \*\*, and \* indicate significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

All variables are defined in Table 3.

TABLE 6

Analyses using firm partitions: abnormal returns to insider purchases for firms having low versus high magnitude of reconciling items from UK domestic standards to IFRS

Buy-Hold Return:	3-Month		6-Month	
	Low Reconciling Items	High Reconciling Items	Low Reconciling Items	High Reconciling Items
	(1)	(2)	(3)	(4)
Intercept	0.039 (0.43)	-0.096 (-0.71)	0.032 (0.20)	-0.126 (-0.61)
$BUYSIZE_{it}$ (+)	2.720 (1.91) **	1.002 (0.83)	3.788 (1.51) *	-0.151 (-0.06)
$BM_{jt}$ (+)	0.001 (0.63)	0.001 (0.51)	0.004 (1.06)	0.003 (0.79)
$SIZE_{jt}$ (-)	-0.002 (-0.76)	-0.005 (-1.50) *	-0.011 (-2.09) **	-0.009 (-1.65) **
$R\&D_{jt}$ (+)	-0.012 (-0.84)	-0.009 (-0.73)	0.015 (0.72)	-0.025 (-1.28)
$CLOSEHELD_{jt}$ (+)	-0.000 (-0.49)	-0.000 (-0.37)	0.000 (0.91)	0.000 (0.05)
$RETLAG_{jt}$ (-)	-0.027 (-3.00) ***	0.004 (0.43)	-0.043 (-3.68) ***	0.006 (0.42)
$VOLATILITY_{jt}$ (+)	0.989 (0.99)	3.001 (1.74) **	3.379 (1.94) **	4.744 (1.84) **
$IFRS_{jt}$ (-)	-0.041 (-4.92) ***	-0.014 (-2.10) **	-0.064 (-4.49) ***	-0.020 (-1.73) **
Fixed Effects	Industry	Industry	Industry	Industry
$N$	923	927	923	927
$Adjusted-R^2$	0.133	0.105	0.146	0.130

**Notes:**

This table presents abnormal returns to insider purchases for two groups of firms: those reporting low versus high reconciling items between UK domestic standards and IFRS. We obtain firm-level reconciling amounts from Horton and Serafeim (2010). We designate as low (high) reconciling items firms having below (above) median of the absolute value of reconciling items scaled by market value of equity. Across all columns, the sample includes UK firms that adopted IFRS in accordance with the 2005 EU directive, for which reconciling data between UK standards and IFRS are available. The sample period includes 2003–2006, where 2003-2004 is the pre-IFRS period, and 2005-2006 is the post-IFRS period.

The dependent variable is  $BHRET$ , abnormal buy-and-hold returns to insider purchases. Abnormal returns are calculated for two measurement windows (3-month and 6-month) in three steps as follows.

First, we measure the stock return to each insider purchase starting from the day following the insider trade until the end of the indicated window (i.e., 3-month, or 6-month). Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all firm  $j$  insider trades for fiscal year  $t$ , weighting the trades by the relative shares transacted, to derive a firm-year cumulative abnormal return to total insider purchases.

Standards errors are clustered by firm. Untabulated industry fixed-effects are by 2-digit SIC code. \*\*\*, \*\*, and \* indicate significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

All variables are defined in Table 3.

TABLE 7

Analyses using firm partitions: abnormal returns to insider purchases and analyst recommendation upgrades for firms having low versus high increase in comparability on IFRS adoption

Buy-Hold Return:	Insider Purchases		Analyst Recommendation Upgrades	
	3-Month		3-Month	
	Low Increase in Comparability	High Increase in Comparability	Low Increase in Comparability	High Increase in Comparability
	(1)	(2)	(3)	(4)
Intercept	-0.023 (-0.27)	-0.037 (-0.41)	-0.087 (-0.88)	-0.066 (-0.42)
$BUYSIZE_{jt}$ (+)	1.824 (2.02) **	4.319 (1.66) **		
$BM_{jt}$ (+)	0.002 (1.15)	-0.002 (-1.17)	0.013 (1.79) **	0.023 (2.36) ***
$SIZE_{jt}$ (-)	-0.003 (-0.83)	-0.005 (-1.75) **	-0.006 (-1.19)	0.003 (0.90)
$R\&D_{jt}$ (+)	0.010 (0.57)	0.003 (0.19)	-0.059 (-2.24)	0.013 (0.86)
$CLOSEHELD_{jt}$ (+)	0.000 (0.29)	-0.000 (-0.51)	-0.001 (-1.75)	0.001 (1.91) **
$RETLAG_{jt}$ (-)	-0.006 (-0.87)	-0.018 (-1.76) **	-0.009 (-0.62)	-0.030 (-2.46) ***
$VOLATILITY_{jt}$ (+)	-0.206 (-0.23)	3.001 (1.74) **	1.446 (1.20)	-0.035 (-0.02)
$IFRS_{jt}$ (-)	-0.011 (-1.52) *	-0.035 (-4.44) ***	-0.009 (-0.80)	-0.025 (-2.64) ***
Fixed Effects	Industry	Industry	Industry	Industry
<i>F</i> -test of coefficients:				
$IFRS_{LOW} < IFRS_{HIGH}$		4.48 **		1.18
<i>N</i>	872	848	494	628
<i>Adjusted-R</i> <sup>2</sup>	0.062	0.083	0.096	0.085

**Notes:**

This table presents abnormal returns to insider purchases in columns (1) and (2), and analyst recommendation upgrades in columns (3) and (4) for two groups of firms: those in industries experiencing low versus high increases in comparability. To operationalize this measure, we use the ratio proposed in DeFond et al. (2011), representing the increase in the pool of peer firms using the same set of standards, calculated for each 2-digit SIC industry group in our sample. The numerator of this



ratio is the number of UK firms plus the number of firms in other E.U. countries, which report under IFRS by 2006. The denominator of this ratio is the number of UK firms. We designate firms as experiencing a low (high) increase in comparability if their industry is in the bottom (top) tercile of the percentage increase in comparable peers. The sample includes UK firms that adopted IFRS in accordance with the 2005 EU directive. The sample period includes 2003–2006, where 2003-2004 is the pre-IFRS period, and 2005-2006 is the post-IFRS period.

In columns (1) and (2), the dependent variable is *BHRET*, abnormal buy-and-hold returns to insider purchases. Abnormal returns are calculated for a 3-month measurement window in three steps as follows. First, we measure the stock return to each insider purchase starting from the day following the insider trade until the end of the 3-month window. Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all firm *j* insider trades for fiscal year *t*, weighting the trades by the relative shares transacted, to derive a firm-year cumulative abnormal return to total insider purchases.

In columns (3) and (4), the dependent variable is *BHRET\_ARU*, abnormal buy-and-hold returns to analyst recommendation upgrades. We define as upgrades those recommendations that either: (i) are both more favorable than the previously issued recommendation, and have at least a “Hold” recommendation; or (ii) first-time recommendations that are designated as a “Buy” or “Strong Buy.” Returns are calculated for a 3-month window. We calculate abnormal buy-and-hold returns using three steps. First, we measure the stock return to each analyst recommendation upgrade from the day following the recommendation’s disclosure until the end of the 3-month window. Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all recommendation upgrades across analysts for firm *j* for year *t* to derive a firm-year cumulative abnormal return to analyst recommendation upgrades.

Standards errors are clustered by firm. Untabulated industry fixed-effects are by 2-digit SIC code. \*\*\*, \*\*, and \* indicate significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

All variables are defined in Table 3.

TABLE 8  
Sensitivity analyses: abnormal returns to insider sales and analyst recommendation downgrades

Buy-Hold Return	Insider Sales		Analyst Recommendation Downgrades	
	3-Month	6-Month	3-Month	6-Month
	(1)	(2)	(3)	(4)
Intercept	0.039 (1.22)	0.037 (0.69)	-0.184 (-2.78) ***	-0.182 (-1.33)
$BM_{jt}$ (+)	0.000 (0.44)	-0.000 (-0.36)	0.004 (1.57)	0.004 (1.16)
$SIZE_{jt}$ (-)	0.000 (0.41)	0.000 (0.30)	0.001 (0.07)	-0.001 (-0.05)
$RD_{jt}$ (+)	0.003 (0.18)	0.011 (1.40)	-0.002 (-0.15)	0.007 (0.38)
$CLOSE_{jt}$ (+)	-0.000 (-0.45)	-0.000 (-0.15)	-0.001 (-0.12)	0.001 (0.73)
$RETLAG_{jt}$ (-)	0.005 (1.31)	0.000 (0.08)	-0.001 (-0.22)	-0.001 (-0.11)
$VOLATILITY_{jt}$ (+)	-0.760 (-2.13) **	-0.862 (1.51)	-0.193 (-0.19)	-0.251 (-0.12)
$IFRS_{jt}$ (-)	0.006 (1.78)	0.006 (1.16)	-0.001 (-0.31)	-0.016 (-2.17) **
Fixed Effects	Industry	Industry	Industry	Industry
$N$	2,616	2,616	1,692	1,692
$Adjusted-R^2$	0.036	0.053	0.039	0.033

**Notes:**

This table presents results from two sensitivity analyses. Across all columns, the sample includes UK firms that adopted IFRS in accordance with the 2005 EU directive. The sample period includes 2003–2006, where 2003-2004 is the pre-IFRS period, and 2005-2006 is the post-IFRS period.

The first sensitivity test, presented in columns (1) and (2), examines the returns to insider sales. The dependent variable is  $BHRET\_SELL$ , the abnormal buy-and-hold returns to insider sales. Abnormal returns are calculated for two measurement windows (3-month and 6-month) in three steps as follows. First, we measure the stock return to each insider sale starting from the day preceding disclosure of the insider trade until the end of the indicated window (i.e., 3-month, or 6-month). Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all firm  $j$  insider trades for fiscal year  $t$ , weighting the trades by the relative shares transacted, to derive a firm-year cumulative abnormal return to total insider sales.

The second sensitivity test, presented in columns (3) and (4), examines the returns to analyst recommendation downgrades. The dependent variable is *BHRET\_ARD*, the abnormal buy-and-hold returns to analyst recommendation downgrades, where an analyst recommendation is considered as a downgrade if (i) an analyst issues a recommendation that is strictly less favorable on the I/B/E/S scale than his/her previous recommendation for the same stock (e.g., “Hold” instead of “Buy”) and (ii) the updated recommendation is less favorable than a “Buy”. “Sell” and “Strong sell” first-time recommendations are also considered as downgrades. Abnormal returns are calculated for two measurement windows (3-month and 6-month) in three steps as follows. First, we measure the stock return to each analyst recommendation downgrade from the day following the recommendation’s disclosure until the end of the indicated window (i.e., 3-month, or 6-month). Second, we subtract the stock return to the UK value-weighted index for the same window. Finally, we aggregate all recommendations across analysts for firm  $j$  for year  $t$  to derive a firm-year cumulative abnormal return to analyst recommendation downgrades.

Standards errors are clustered by firm. Untabulated industry fixed-effects are by 2-digit SIC code. \*\*\*, \*\*, and \* indicate significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

All variables are defined in Table 3.