

# Market Reaction to Events Surrounding the Adoption of IFRS in Europe

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# **Market Reaction to Events Surrounding the Adoption of IFRS in Europe**

## **Abstract**

This paper examines the European stock market reaction to key events affecting the adoption of International Financial Reporting Standards (IFRS) in Europe, including adoption of the controversial standard on financial instruments, IAS 39. Our tests enable us to assess equity investors' perceptions regarding the relative costs and benefits of adopting IFRS. Overall, we find significant positive (negative) market reactions to events that increased (decreased) the likelihood of IFRS adoption. We also provide some evidence that investors perceive greater net benefits for firms not presently cross-listed in the US. Overall, our findings are consistent with European equity investors perceiving net benefits to the adoption of IFRS in Europe.

# **Market Reaction to Events Surrounding the Adoption of IFRS in Europe**

## *1. Introduction*

This paper examines the European stock market reaction to key events surrounding the adoption of International Financial Reporting Standards (IFRS) in Europe.<sup>1</sup> In 2002, the European Union (EU) issued a regulation requiring all publicly listed firms in its member states to adopt IFRS in 2005. This represented one of the largest financial reporting changes in recent years, expected to affect some 7,000 listed firms in Europe – most of which had applied domestic accounting standards. The adoption of IFRS would result in application of a single set of accounting standards not only within Europe, but also between European firms and firms in the many other countries that require or permit application of IFRS. We predict and find significant positive market reactions to events that increased the likelihood of IFRS adoption, and significant negative market reactions to events that decreased it. These findings indicate that equity investors perceive net benefits associated with adoption of IFRS in Europe.

There was controversy surrounding the adoption of IFRS in Europe. Proponents believed that IFRS adoption would benefit investors for three primary reasons. First, some proponents believed application of IFRS results in higher quality financial reporting than does application of domestic European standards. Thus, improvements in financial reporting and disclosure resulting from application of IFRS would lower information asymmetry and information risk. Second, application of a single set of standards would result in lower costs of comparing performance of firms from different countries. Third, European capital markets would experience increased capital flows from outside of Europe and become more globally competitive, thereby increasing liquidity for European firms. Prior research reveals that these

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<sup>1</sup> We examine equity market responses across all stock markets for member states of the European Union. Throughout, we refer to these markets collectively as the European stock market.

effects are associated with lower costs of capital (e.g., Diamond and Verrecchia [1991], Baiman and Verrecchia [1996], Leuz and Verrecchia [2000], Easley and O'Hara [2004], and Barth, Konchitchki, and Landsman [2006]). Thus, we predict a positive (negative) market reaction to events increasing (decreasing) the likelihood of IFRS adoption.

Opponents to IFRS adoption countered that regional differences in economies were not adequately reflected in IFRS, and that a single set of standards might not accommodate the differing political and economic features of member states that caused divergent accounting systems to arise in the first place. Also, prior research (e.g., Ball [1995], Ball, Robin, and Wu [2003], and Ball [2006]) indicates it is unclear whether investors benefit simply from adoption of a single set of accounting standards, even those of high quality. Differential or lax implementation and enforcement of the standards could erase any potential benefits. Consistent with this, prior research fails to consistently find significant market reactions associated with previous financial reporting convergence efforts (e.g., Joos and Lang [1994] and Comprix, Muller, Stanford [2003]).

As the process for adoption of IFRS proceeded, the focus of controversy evolved to one standard: International Accounting Standard (IAS) 39, *Financial Instruments: Recognition and Measurement*. IAS 39 prescribes the recognition requirements for financial instruments. Two provisions of IAS 39 were controversial: the fair value option and some of the hedge accounting rules. These provisions led to resistance against the standard, particularly from banks, which were most affected by IAS 39 because their assets and liabilities are primarily financial. This controversy resulted in the European Commission (EC) adopting all IFRSs, but with these two provisions carved-out of IAS 39. Because the version of IAS 39 adopted for use in Europe

differs from IAS 39 as issued by the IASB, the carve-outs compromised the EU's goal of adopting global accounting standards.

We test our predictions on sixteen events that we assess as having a noticeable effect on the likelihood of IFRS adoption in Europe. We use an event-study methodology to examine the three-day market-adjusted returns on the sixteen event dates. Our sample comprises all publicly traded European firms because adoption of IFRS would apply to these firms. Because our sample includes all European firms, our market adjustment has two components. First, to control for general equity market factors unrelated to IFRS adoption events, we adjust the event date returns for observed world-wide equity returns over the same periods. Second, to control for any systematic difference in returns between European firms and firms in other world markets, we assess the significance of the event-day market-adjusted returns by comparing these returns to the distribution of similar market-adjusted returns for non-event dates during the same period.

Our empirical tests reveal market reactions generally consistent with our predictions. Specifically, we find significant positive responses to nine of the thirteen events that increased the likelihood of adoption, and a significant negative response to all three of the events that decreased the likelihood of adoption. Alternative specifications, including analyses pooling our event dates and analyses utilizing alternative expected return benchmarks, reveal that these inferences are robust. Overall, our findings are consistent with investors in European firms perceiving the benefits of adoption of IFRS – associated with convergence, improved financial reporting under IFRS, or both – exceed any expected costs associated with implementation or lost diversity arising from replacing domestic financial reporting standards with global standards.

We then examine whether the market response differs across the type of firm. Specifically, we examine whether the firm is cross-listed in the U.S. We predict that the market

reaction on our event dates is less pronounced for cross-listed firms than for non-cross-listed firms. This is because in addition to reporting under their domestic Generally Accepted Accounting Principles (GAAP), cross-listed firms must report under U.S. GAAP, which is closer to IFRS than most European domestic GAAP (e.g., Barth, Landsman, and Lang [2006]). Thus, the effects of Europe adopting IFRS are smaller for these firms. Consistent with predictions for this sub-group analysis, we find some evidence that the market response for non-American Depository Receipts (ADR) firms is significantly stronger than that for ADR firms. This finding suggests that investors perceived that non-ADR firms would obtain greater benefits from IFRS adoption than ADR firms.

The remainder of this paper is organized as follows. Section 2 discusses the background and related research. Section 3 presents our hypothesis development and research design. Section 4 discusses our empirical results. Section 5 reviews our sensitivity analyses, and section 6 concludes.

## *2. Background and Related Research*

### 2.1 BACKGROUND

In March 2002, the European Parliament passed a resolution requiring all firms listed on European exchanges to follow IFRS when preparing their financial statements. This requirement applied to fiscal years beginning on or after January 1, 2005, and affected approximately 7,000 firms listed on European stock exchanges.<sup>2</sup> The prospects of adopting IFRS represented a substantial shift in financial reporting for European firms because many requirements in IFRS differ from those in domestic standards of European countries. Also the adoption of IFRS in

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<sup>2</sup> The required adoption date is January 1, 2007 for firms trading securities in the US and basing their financial statements on US GAAP, and trading debt securities but not equity securities.

Europe reflects an EU goal of achieving capital market integration; it is a necessary step towards convergence of financial reporting not only across Europe, but also between Europe and the rest of the world. Although the resolution requires firms to follow IFRS, which are issued by the IASB, a private-sector standard setter, the EC must endorse the standards before they are required in the EU. Thus, the EC retains the power to reject any standard, or part of a standard, it believes does not meet its criteria for endorsement. The three primary criteria are: the standard is not contrary to the EU's true and fair principle; the standard meets the criteria of understandability, relevance, reliability, and comparability; and adopting the standard is in the European public interest.

Figure 1 summarizes the EC endorsement process, which played a key role in the adoption of IFRS in Europe. The IASB develops IFRS in accordance with due process procedures outlined in its governing constitution (IASB [2006]). This process involves public meetings and extensive input from interested parties around the world. Among these is the European Financial Reporting Advisory Group (EFRAG), a private-sector organization comprised of accounting experts from the EU, which provides advice to the EC regarding technical accounting matters. After the IASB issues a standard, EFRAG reviews it and, after public consultation, decides whether to recommend to the EC that it endorse the standard for use in Europe. Taking EFRAG's advice into account, the EC drafts proposed regulation. The EC then must seek input from the Accounting Regulatory Committee (ARC). ARC, which is comprised of representatives from each member state in the EU, reviews the regulation and then provides its recommendation about adoption in the EC. The ARC considers the technical merits of the standard as expressed in EFRAG's recommendation letter, as well as the implications of

the standard for European public interests.<sup>3</sup> If the ARC recommends endorsement, the EC then decides whether to endorse the standard – as written by the IASB or as amended, or rejects it. If endorsed, the standard becomes regulation applicable to firms within the European Union. If the ARC recommends rejection of the standard, the EC can send it back to EFRAG for further consideration, or send it to the European Parliament for a decision.<sup>4</sup>

The debate surrounding the adoption of IFRS for use in Europe initially focused on the merits of adopting IFRS, such as whether the benefits of the expected increased capital flows would outweigh the costs of implementation and lost diversity in domestic accounting standards. Later, as explained in section 3.2, the debate centered on IAS 39 and, to a lesser extent, IAS 32. IAS 39 (*Financial Instruments: Recognition and Measurement*) specifies requirements for recognizing and measuring assets, liabilities, and equity associated with financial instruments. IAS 32 (*Financial Instruments: Disclosure and Presentation*) specifies requirements for presenting and disclosing financial instruments. Not surprisingly, these two standards, particularly IAS 39, have a notable effect on reported results for financial service firms in general, and banks in particular.<sup>5</sup>

Regarding IAS 39, the controversy focused on two types of requirements. The first relates to use of fair value as the measurement attribute. IAS 39 requires some financial instruments – notably derivatives – to be recognized at fair value, with changes in fair value recognized in profit or loss.<sup>6</sup> Also, IAS 39 includes a fair value option, which permits firms to

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<sup>3</sup> Note that EFRAG is not a governmental agency; rather, professional accounting and preparer organizations provide both EFRAG's funding and members. In contrast, ARC is a governmental agency.

<sup>4</sup> The process can apply to a single standard or to a group of standards. As explained in section 3.2, for the initial endorsement of IFRS, the extant set of standards was considered as a group. Specifically, the EC considered all standards effective at March 1, 2002, which spanned IAS 1 through IAS 41, as well as the related Standing Interpretations Committee (SIC) interpretations, i.e., spanning SIC 1 through SIC 33.

<sup>5</sup> We use the term banks to refer to commercial banks, not investment banks.

<sup>6</sup> IAS 39 classifies financial assets into (1) loans and receivables not held for trading; (2) held-to-maturity investments; (3) financial instruments held for trading, including derivatives; and (4) available-for-sale financial

designate financial instruments irrevocably on initial recognition as ones to be measured at fair value with changes in fair value recognized in profit or loss. The second relates to qualifications for hedge accounting – IAS 39's qualifying criteria are strict. Hedge accounting results in gains (losses) from financial instruments being recognized in profit or loss at the same time, to the extent a designated hedging instrument incurs corresponding losses (gains). Thus, hedge accounting reduces volatility in profit or loss resulting, e.g., from measuring derivatives entered into for hedging purposes at fair value and measuring the hedged item at amortized cost. However, IAS 39 does not permit hedge accounting for many financial instruments ostensibly entered into for hedging purposes. For example, IAS 39 does not permit hedge accounting for interest rate risk associated with a portfolio of demand deposits; European banks commonly state that they hedge this risk. For many European firms, the fair value and hedging requirements in IAS 39 substantially differ from their domestic GAAP requirements. In fact, most European domestic standards do not include standards specifying the financial reporting for most financial instruments.

The process of adopting IFRS in Europe began with the initial European Parliament resolution in 2002 and is ongoing. The adoption process was characterized by a desire of the EU to implement global standards in Europe, but was not without controversy. This controversy led to the modification of IAS 39 for adoption in Europe, which undermines the EU's goal. Section 3.2 describes the process in detail and identifies the sixteen key events during the process that are the focus of our study.

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assets. Financial assets in (1) and (2) are recognized at amortized cost subject to impairment. Financial assets in (3) are recognized at fair value, with changes in fair value recognized in profit or loss. Financial assets in (4) are recognized at fair value, with changes in fair value recognized directly in equity. Most financial liabilities are recognized at cost, except derivatives and liabilities held for trading, which are recognized at fair value with changes in fair value recognized in profit or loss.

## 2.2 RELATED RESEARCH

Our study primarily relates to the literature examining the implications of convergence of accounting standards across countries. The implications depend not only on convergence *per se*, but also on the quality of the converged standards. Relating to increased quality of financial reporting, Diamond and Verrecchia [1991] and Baiman and Verrecchia [1996] show analytically that a commitment to higher quality reporting results in a lower cost of capital. Such a commitment arises from, for example, adopting higher quality accounting standards. Related, Easley and O'Hara [2004] show analytically that information risk is priced. This, too, suggests that higher quality financial reporting is associated with lower cost of capital. Consistent with Easley and O'Hara [2004], Barth, Konchitchki, and Landsman [2006] empirically finds that financial statement transparency is associated with lower cost of capital – as reflected both in expected cost of capital and in realized subsequent returns.<sup>7</sup>

Consistent with a commitment to higher quality reporting resulting in lower cost of capital, Leuz and Verrecchia [LV, 2000] empirically finds that voluntary adoption of IAS or US GAAP by German firms previously applying German standards, which LV interprets as a commitment to higher quality reporting, is associated with lower cost of capital. Barth, Landsman, and Lang [2006] finds that accounting amounts based on IAS are of higher quality than those based on domestic standards from a large number of countries, using a variety of quality metrics. This finding provides support for the assumption that application of IAS leads to higher quality accounting amounts. Consistent with this, Karamanou and Nishiotis [2005], using an event-study design, finds positive abnormal returns for a small set of firms announcing voluntary adoption of IAS during 1989-1999.

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<sup>7</sup> Also consistent with increased financial statement transparency being priced, Aboody, Barth, and Kasznik [2004] finds that firms motivated by increased financial statement transparency experienced positive market reactions to their decisions to recognize stock-based compensation expense.

Relating to convergence within Europe, Pae, Thornton, and Welker [2005] finds that regulations expected to converge financial reporting within the EU increase firm value as measured by Tobin's Q, particularly for firms with higher agency costs. Joos and Lang [1994] examines the effect of the European Directives on accounting ratios and the stock market valuation of accounting amounts of French, German, and UK firms in the 1980s. The directives were intended to create more integrated reporting standards for companies across Europe. In contrast to the inferences from Pae, Thornton, and Welker [2005], Joos and Lang [1994] finds the enactment of the directives did little to reduce reporting differences. In particular, Joos and Lang [2004] finds significant financial reporting differences across these three countries both before and after enactment of the directives. More directly related to our study, Comprix, Muller, and Stanford [CMS, 2003] uses an event-study research design focused on dates early in the EU's IFRS adoption process, i.e., those occurring between 2000 and 2002. CMS finds mixed evidence about the decision to mandate adoption of IFRS in Europe. In contrast, we focus on event dates subsequent to those in CMS, which likely reflect a stronger commitment to IFRS adoption.<sup>8</sup>

Relating to the interaction between convergence and accounting quality, Barth, Clinch, and Shibano [1999] models convergence and finds that the market effects of convergence result from the interaction of two forces. The first is the direct informational effect, which depends on whether convergence increases or decreases accounting quality. The second is the expertise acquisition effect, which depends on the benefits and costs of convergence *per se*, i.e., how costly it is for investors to become experts in the converged accounting. The interaction of these forces reveals convergence *per se* may not be a desirable singular goal – quality also matters.

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<sup>8</sup> Other studies examine the effects on convergence of particular IAS before the adoption of IFRS in Europe, or convergence efforts within particular (more limited) sets of countries. Most of these studies rely on survey data and conclude that substantial reporting differences remain. See Tay and Parker [1990] for a review.

Ball [1995] and [2006] observes that adoption of accounting standards is not sufficient for achieving convergence of financial reports. Implementation and enforcement of the standards affect the quality of the resulting financial information. Consistent with this, Ball, Robin, and Wu [2003] finds that accounting quality for firms in four East Asian countries with accounting systems based on common law sources is not higher than that for firms based on code law sources. Because common law-based accounting systems are generally regarded as higher quality than code law-based systems, this finding suggests that firms' and auditors' incentives affect the quality of reported accounting amounts.

Our study also builds on prior work examining events leading to the issuance of accounting standards. Beatty, Chamberlain, and Magliolo [1996] and Cornett, Rezaee and Tehranian [1996] examine short-window returns for banks and insurance firms surrounding events predicted to change the likelihood the FASB would issue SFAS 115, the US accounting standard that increased the extent to which debt securities are recognized at fair value. Both studies find negative returns surrounding events that increased the likelihood of adoption of SFAS 115, and infer the market response reflects problems with SFAS 115's fair value accounting approach. Dechow, Hutton, and Sloan [DHS, 1996] examines the market reaction to events leading to the issuance of SFAS 123, the US accounting standard that specifies the financial reporting for stock-based compensation. DHS finds no evidence that changes in the probability of mandatory expensing of stock-based compensation are associated with negative market reactions.

### *3. Hypothesis Development, Key Events, and Research Design*

#### 3.1 HYPOTHESIS DEVELOPMENT

##### *3.1.1. European Market Response to IFRS Adoption*

The 2002 proposal to adopt IFRS across Europe was intended, among other things, to integrate the European capital markets, thereby increasing their competitiveness with other major world capital markets, such as those in the US. Prior to adopting IFRS, firms in each EU member state applied domestic accounting standards. Proponents of IFRS adoption in Europe argued that using a single set of accounting standards across the EU would facilitate flows of capital by reducing costs to investors of comparing firms across countries and by improving the quality of financial reporting. The European Parliament's decision to adopt IFRS indicates it believed the benefits to adoption outweighed the costs. Coupled with findings from prior research (e.g., Leuz and Verrecchia [2000], Karamanou and Nishiotis [2005], and Barth, Landsman, and Lang [2006]), this leads us to predict that adoption of IFRS is consistent with improvement in financial reporting quality. This, in turn, leads to the following hypothesis, stated in alternative form (Diamond and Verrecchia [1991], Baiman and Verrecchia [1996], Leuz and Verrecchia [2000], Easley and O'Hara [2004]):

H1: The European stock market will respond positively (negatively) to events increasing (decreasing) the likelihood of adoption of IFRS in Europe.

Two issues regarding our hypothesis warrant comment. First, any market reactions consistent with H1 could be attributable to the market's assessment that applying IFRS results in higher quality financial reporting or to the benefits of convergence. We cannot distinguish these competing explanations. However, both are consistent with adoption of IFRS improving financial reporting in Europe.

Second, there is basis for expecting the opposite of what we predict – that is, negative (positive) market reactions to events increasing (decreasing) IFRS adoption likelihood. In particular, opponents to adoption argued that domestic GAAP arose endogenously in response to differences in the corporate, legal, and political environments of each country, which would mean that domestic standards, not IFRS, would be of higher quality for firms of those countries. There also is basis for expecting no market reaction. In particular, anticipated differential or lax implementation or enforcement of the standards could erase any expected benefit from their adoption (Ball [1995], Ball, Robin, and Wu [2003], and Ball [2006]). Opponents also argued that the costs of adopting IFRS to firms and investors, such as the start-up costs to adopt, report, and analyze amounts and disclosures under the new standards, might exceed any benefits of higher quality or increased comparability across firms. Finally, prior research fails to consistently find significant market reactions in related situations (Joos and Lang [1994], and Comprix, Muller, and Stanford [2003]). Both of these issues bias against our finding evidence consistent with H1.

### *3.1.2. Does the European Market Response to IFRS Adoption Differ Across Firm Types?*

We also consider whether the market reaction to our IFRS-related events varies with the quality of the firm's financial reporting prior to the adoption of IFRS. In particular, not all European firms' financial reporting was dictated by domestic European accounting standards. Some European firms cross-list securities in the US using American Depository Receipts (ADR). These firms are required to reconcile net income and equity book value determined by applying domestic GAAP to those determined by applying US GAAP. Prior research finds that the qualities of accounting amounts based on IFRS and reconciled US GAAP are indistinguishable (Barth, Landsman, Lang, and Williams [2006]) and the quality of accounting amounts based on

IFRS is higher than those based on domestic GAAP (Barth, Landsman, and Lang [2006]).

Combined, these findings suggest that accounting amounts based on IFRS are more similar to reconciled US GAAP than they are to amounts based on domestic GAAP. Thus, we expect the net benefits of IFRS adoption to be lower for ADR firms. This leads us to predict that the market reaction to events affecting the likelihood of IFRS adoption will be attenuated for ADR firms.

H2: The European market response to events affecting the likelihood of European adoption of IFRS will be stronger for non-ADR firms than for ADR firms.

### 3.2 KEY EVENTS

We examine sixteen key events that we predict affected the likelihood of the adoption of IFRS in Europe, a process that took place between 2002 and 2005. Table 1 lists the events and our predictions for whether the events increased or decreased adoption likelihood. As explained in section 3.1, we predict a positive (negative) market reaction to events that increased (decreased) adoption likelihood. To identify the events, we searched *Dow Jones News Retrievable* using the terms “IFRS,” “international financial reporting standards,” “harmonization,” and “IAS 39.”<sup>9</sup> This search provided an initial listing of approximately forty event dates. Each author independently verified each event’s timing, content, and directional effect on IFRS adoption likelihood. Each author then independently identified the dates expected to have the greatest effect on IFRS adoption. This process resulted in the sixteen events that are the focus of our tests.

The first event we test is March 12, 2002, because it is when the European Parliament passed the resolution that would require all firms listed on stock exchanges in the European Union to apply IFRS by 2005. The resolution passed by a vote of 429 for, 5 against, and 29

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<sup>9</sup> Several events were alternatively identified through reference from our initial search.

abstentions, indicating broad support for adoption of IFRS. On May 14, 2002, and June 19, 2002, EFRAG issued its draft and final recommendations that extant IFRS be endorsed *en bloc*. The endorsement recommendation letters state EFRAG's view that the regulation requiring European firms to adopt IFRS by 2005 is a major achievement in that the common basis for financial reporting based on high quality global standards provides a platform for efficient cross border investment both within and beyond the EU. EFRAG further noted that the IASB is reviewing several standards with the objective of making some improvements to them; EFRAG will consider those changes and make its recommendation on them after the IASB promulgates them. EFRAG's final endorsement recommendation letter also observed that IAS 39 is the most problematic standard – particularly relating to its hedge accounting requirements – but EFRAG welcomes the IASB's efforts to improve the standard. These three events reflect clear support for the broad adoption of IFRS. Thus, we expect each increased the likelihood of adoption of IFRS in Europe.

During the remainder of 2002 and into 2003, while the IASB deliberated the improvements to IAS 39 mentioned in the EFRAG letter, the EC considered whether to accept EFRAG's recommendation to endorse extant IFRSs. The next key event we test is July 4, 2003, when Jacques Chirac, President of France, wrote a letter to Romano Prodi, President of the EC, to express his concerns that adopting IFRS, particularly IAS 39, would not be in the best interest of Europe. Chirac's interest in the debate arose at least in part because French banks were the most critical of IAS 39. We expect this opposition by the President of a major European country decreased the likelihood of adoption of IFRS.

A few days later, on July 9, 2003, Frits Bolkestein, the EC commissioner responsible for internal markets, expressed to Sir David Tweedie, Chairman of the IASB, similar concerns about

IAS 39, but also expressed support for the broader goal of convergence using IFRS. On July 16, 2003, the ARC and the EU's Economic and Financial Affairs Council (ECOFIN), which is comprised of the Economics and Finance ministers of the EU member states, echoed Bolkestein's support for adoption of IFRS, as well as his concerns about IAS 39. On September 29, 2003, the EC endorsed all extant IFRSs, except IAS 32 and IAS 39. Even though all of these events reflect concerns about IAS 39, they all express clear support for IFRS adoption and the desire to work to resolve the remaining issues relating to IAS 39 in the near term. Thus, we expect that each of these events increased the likelihood of adoption of IFRS.

After the EC's endorsement of most extant IFRSs the debate became focused on the two unendorsed standards of IAS 32 and IAS 39, particularly the two controversial aspects of IAS 39 – the fair value option and some hedge accounting requirements. In December 2003, the IASB issued a revised IAS 39. However, the revisions did not resolve the controversial issues. Thus, the adoption of IAS 32 and IAS 39 remained uncertain.

On February 3, 2004, Bolkestein indicated his intention to continue postponing endorsement of IAS 32 and IAS 39 until the issues could be resolved. To facilitate resolution, he announced that a high level consultative group would be established. On March 30, 2004, HSBC, the largest European bank, expressed its support for adoption by announcing its plans to implement IAS 39 in full, regardless of whether the EC adopted it. On June 4, 2004, EFRAG issued draft recommendations to endorse IAS 32 and IAS 39. The IAS 32 recommendation was unanimous. However, 6 of 11 EFRAG members voted against the IAS 39 recommendation, including EFRAG members from France and Germany. A majority negative vote is insufficient for EFRAG to recommend non-endorsement of a standard – the EFRAG constitution requires a two-thirds negative vote. Thus, despite the recommendation to endorse the standard, the

negative majority vote revealed EFRAG did not support IAS 39. On July 8, 2004, EFRAG issued its final recommendations to endorse IAS 32 and IAS 39, both based on the same votes as the draft recommendations. Each of these dates continues to reflect elements of concern regarding IAS 39. However, the actions taken by Bolkestein to resolve the conflicts, the support of IAS 39 by a major European bank, and recommended endorsement of IAS 39 by the EFRAG (albeit weakly supported) all reflect movement towards adopting IFRS; thus, we predict each of these event dates increased the likelihood of IFRS adoption.

On October 1, 2004, the ARC added its endorsement recommendation to that of EFRAG. However, the ARC did not recommend endorsement of IAS 39 as issued by the IASB. Rather, the ARC recommended that the EC “carve out” of IAS 39 the two parts of the standard that had been the focus of the controversy – the fair value option and some hedge accounting requirements. Endorsing IAS 39 with this carve-out would mean that IFRS as applied in Europe would differ from IFRS applied elsewhere in the world, thereby thwarting the goal of global convergence described in the 2002 EFRAG endorsement recommendation letters. On November 19, 2004, the EC followed the ARC recommendation and endorsed a carve-out version of IAS 39. Because these two events indicate that the EC is willing to alter IFRSs, we expect that these two events each decreased the likelihood of adoption of IFRS.

However, the EC indicated its intent for the carve-outs to be temporary, only leaving them in place until the technical controversies were resolved. On June 16, 2005, the IASB revised IAS 39 to include a revised fair value option, and on July 8, 2005, the ARC recommended endorsement of it. The EC endorsed the revised IAS 39 on November 15, 2005, thereby eliminating one of the two carve-outs relating to IAS 39. Because these three events

support the EC's intention of eliminating the carve-outs, we expect that each increased the likelihood of adoption of IFRS.

### 3.3 RESEARCH DESIGN

#### 3.3.1. *European Market Response to IFRS Adoption*

We test our hypothesis H1 using an event-study research design to examine the three-day market-adjusted returns to our sixteen event dates identified in Table 1. Because our reference sample includes all European firms, our market-adjustment has two components. First, we compute  $MACR_e$ , the market-adjusted cumulative return for event  $e$ , as the value-weighted three-day cumulative raw return to the portfolio of European firms less the three-day cumulative return for the Dow Jones STOXX Global 1800 Index, both centered on event date  $e$ .<sup>10</sup> The European firm portfolio is weighted by the most recent calendar quarter ending market value of equity.<sup>11</sup> Adjusting for changes in the global market index controls for general event date factors, not associated with IFRS adoption, that may be correlated with movement in the European equity markets. Second, we assess the statistical significance of  $MACR_e$  by comparing it to a bootstrap distribution of market-adjusted cumulative returns for non-event days during the same period. We delineate the full bootstrap procedure in Appendix A. This second comparison against non-event date returns controls for general co-movements that naturally occur between European and world-wide markets.

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<sup>10</sup> The Dow Jones STOXX GLOBAL 1800 Index represents the largest 600 firms, based on free float market capitalization, from each of Europe, North and South America, and the Asia/Pacific-region. The index's stated objective is to "provide a broad yet investable representation of the world's developed markets." [[http://www.stoxx.com/incoming\\_data/factsheets/global1800\\_fs.pdf](http://www.stoxx.com/incoming_data/factsheets/global1800_fs.pdf), cited April 2, 2006].

<sup>11</sup> We aggregate our European firms to a value-weighted portfolio to construct a single  $MACR_e$  observation per event date. This mitigates standard error bias resulting from cross-correlation in returns across individual firms.

To examine H1, we conduct our analyses in three ways: (i) aggregating all event dates; (ii) pooling event dates based on the predicted directional impact on IFRS adoption; and (iii) examining individual event dates. For (i) and (ii), we group the thirteen event dates predicted to increase the likelihood of IFRS adoption, and also group the three event dates predicted to decrease the likelihood of IFRS adoption. For (i), we also multiply observed market responses for event dates predicted to decrease the likelihood of IFRS adoption by  $-1$  to enable us to pool both types of events. Finally, for (iii) we examine each event date separately. As stated before, H1 predicts that the European market will respond positively (negatively) to events increasing the likelihood of IFRS adoption.

### *3.3.2. Does the European Market Response to IFRS Adoption Differ Across Firm Types?*

To examine whether the European market response to IFRS related events varies across firm types (i.e., H2), we employ the following analysis. We calculate  $CAR_{e,i}$  by calculating, for each available European firm  $i$ , the three-day cumulative raw return less the three-day cumulative return for the Dow Jones STOXX Global 1800 Index, both measured over the three days centered on event date  $e$ . Note, this differs slightly with our previous analysis, which calculates the return using the value-weighted European portfolio versus at the firm level. However, using a relative measure (i.e., adjusting for changes in the global market index) again controls for general event date factors, not associated with IFRS adoption, that may be correlated with movement in the European equity markets. We then obtain the average (i.e., equal-weighted) return for all ADR firms, and compare this to the average (i.e., also equal-weighted) return for all non-ADR firms. Under H2, we predict that the market response is stronger for non-ADR firms relative to ADR firms, as the net benefits to adopting IFRS should be lower for the latter group since these firms already provide financial reports under US GAAP in addition to

domestic GAAP. Similar to our primary analyses, we apply these tests across three groupings: (i) aggregating all event dates; (ii) aggregating event dates according to their predicted directional effect on IFRS adoption; and (iii) examining individual event dates.

## 4. *Sample and Results*

### 4.1 SAMPLE

To construct our sample, we identify all European firms with price and other financial data for the period 2002 to 2005 available from Datastream International through Thomson One Banker Analytic. Table 2 provides a breakdown of this sample by member state, with the corresponding split across ADR versus non-ADR observations. Not surprisingly, the U.K. (970 firms), France (424 firms), and Germany (518 firms) have the largest sample representation. Approximately 8.6% of our sample firms having available data indicate ADR cross-listing status.

### 4.2 RESULTS

#### 4.2.1. *European Market Response to IFRS Adoption*

Table 3 presents our primary results examining the European equity market response to events affecting IFRS adoption. Panel A presents results for all aggregated dates; Panel B presents results for event dates aggregated according to the predicted directional impact on adoption of IFRS; and Panel C presents results for our individual event dates. All *CAR* are calculated using the bootstrap method described in section 3.3.1.

In Panel A, the *CAR* for our aggregated dates is positive and significant as predicted (0.0025, *Z*-statistic = 6.847). In this analysis, we multiply the observed market reactions for those dates expected to decrease the likelihood of adopting IFRS by negative one, thus enabling us to aggregate all sixteen event dates. In Panel B, the *CAR* for our aggregated dates predicted to

increase the likelihood of IFRS adoption is positive and significant as predicted (0.0021, Z-statistic = 5.770); the *CAR* for our aggregated dates predicted to decrease the likelihood of IFRS adoption is negative and significant, also as predicted ( $-0.0046$ , Z-statistic =  $-12.647$ ). Thus, under both aggregation specifications, we find a European stock market response consistent with investors perceiving the expected benefits of IFRS adoption outweigh the expected costs of implementation and lost diversity from eliminating domestic accounting standards.

In Panel C, we present our results for the sixteen individual event dates, presented sequentially. We find significant positive market responses to 9 of 13 event dates we predict increase the likelihood of IFRS adoption; we also find significant negative market responses to 3 of 3 event dates we predict decrease this likelihood. Specifically, we find a marginally significant positive response for March 12, 2002, when the European Parliament passed the resolution requiring IFRS ( $CAR = 0.0015$ , Z-statistic = 1.615). For May 14, 2002, when EFRAG issued their draft recommendation for endorsement of IFRS *en bloc*, we find an unexpected negative market reaction ( $CAR = -0.0073$ ). We find a significant positive response as predicted for June 19, 2002, when EFRAG issued their final recommendation to endorse IFRS ( $CAR = 0.0026$ , Z-statistic = 2.754). We find a significant negative market response as predicted for July 4, 2003, when Chirac issued a letter expressing discontent regarding the standard setting process in general, and IAS 39 in particular ( $CAR = -0.0078$ , Z-statistic =  $-11.484$ ). We find a significant positive response as predicted for July 9, 2003, when Bolkestein sent a letter to Tweedie expressing support for the goal of convergence ( $CAR = 0.0044$ , Z-statistic = 6.423). We find insignificant responses to the ensuing two event dates: July 16, 2003, when ECOFIN and ARC indicated support for IFRS ( $CAR = -0.0001$ , Z-statistic = 0.203); and September 29, 2003, when the EC endorsed all IFRS except IAS 32 and IAS 39 ( $CAR = 0.0000$ , Z-statistic = 0.010).

Subsequently, when the debate began to focus primarily on IAS 39, we find a significant positive market response as predicted for February 3, 2004, when Bolkestein pushed for differences regarding IAS 39 to be resolved ( $CAR = 0.0067$ ,  $Z\text{-statistic} = 12.307$ ). We also find a significant positive market response as predicted for March 30, 2004, when HSBC announced its intention to adopt IAS 39 in full ( $CAR = 0.0040$ ,  $Z\text{-statistic} = 7.270$ ). We find a positive response as predicted to the following two event dates: June 4, 2004, when EFRAG issued their draft recommendation to endorse IAS 39 ( $CAR = 0.0047$ ,  $Z\text{-statistic} = 8.583$ ); and July 8, 2004, when EFRAG issued their final recommendation to endorse IAS 39 ( $CAR = 0.0059$ ,  $Z\text{-statistic} = 10.925$ ). We then find a significant negative response as predicted for October 1, 2004, when ARC recommended endorsement of IAS 39 with the two carve-out provisions ( $CAR = -0.0041$ ,  $Z\text{-statistic} = -7.600$ ). We similarly find a negative market response to November 19, 2004, when the EC endorsed IAS 39 with the carve-outs ( $CAR = -0.0028$ ,  $Z\text{-statistic} = -5.071$ ).

Finally, for the three events that resolved the IAS 39 carve-out provision relating to the fair value option, we find significant positive market responses as predicted for the first two events: June 16, 2005, when the IASB issued a revised IAS 39 addressing the fair value option ( $CAR = 0.0044$ ,  $Z\text{-statistic} = 9.416$ ); and July 8, 2005, when ARC recommended endorsement of this revised IAS 39 ( $CAR = 0.0034$ ,  $Z\text{-statistic} = 7.250$ ). We find an unexpected negative market response to the third event date, November 15, 2005, when the EC endorsed the revised IAS 39, thereby eliminating one of the carve-outs ( $CAR = -0.0024$ ,  $Z\text{-statistic} = -5.240$ ).

Overall, the results from Table 3 are consistent with the European equity market perceiving net benefits to the adoption of IFRS in Europe. As noted earlier, there are, however, a few events for which we do not observe results consistent with our predictions. Among the

possible explanations for the inconsistent results is that confounding events may have occurred during the same period. We explore this possibility directly in section 5.2.

#### *4.2.2. Does the European Market Response to IFRS Adoption Differ Across Firm Types*

Table 4 presents our results examining whether the market response to IFRS adoption differs across ADR versus non-ADR firms. Paralleling our previous results, Panel A presents results for all aggregated dates; Panel B presents results for event dates aggregated according to the predicted directional impact on adoption of IFRS; and Panel C presents results for our individual event dates. All *CAR* are calculated using the method described in section 3.3.2.

In Panel A, when we aggregate all sixteen event dates, while the difference across non-ADR versus ADR *CAR* is positive as predicted, the difference is insignificant (difference in *CAR* = 0.0006; *t*-statistic = 0.240). As done previously, in this panel we multiply the observed market reactions for those dates expected to decrease the likelihood of adopting IFRS by negative one, thus enabling us to aggregate all sixteen event dates. In Panel B, we find an unexpected negative difference in *CAR* for our aggregated dates predicted to increase the likelihood of IFRS adoption, though this is insignificant ( $-0.0007$ , *t*-statistic = 0.240). However, the difference in *CAR* for our aggregated dates predicted to decrease the likelihood of IFRS adoption is negative and significant, as predicted ( $-0.0062$ , *t*-statistic =  $-4.660$ ). Thus, we find only limited support using our aggregated event dates of a stronger response to IFRS adoption event dates for non-ADR versus ADR firms. This provides limited support that the equity market expected the net benefits to IFRS adoption would be greater for non-ADR relative to ADR firms.

In Panel C, we present results for our individual event dates, again presented sequentially. Of the thirteen dates expected to increase the likelihood of IFRS adoption, we find the following.

Five dates have significant positive differences as predicted: March 12, 2002 ( $t$ -statistic = 3.310); June 19, 2002 ( $t$ -statistic = 5.000); July 9, 2003 ( $t$ -statistic = 3.560); July 16, 2003 ( $t$ -statistic = 4.810); and September 29, 2003 ( $t$ -statistic = 5.040). We also find three dates having positive differences as predicted, but these differences are insignificant: February 3, 2004 ( $t$ -statistic = 1.370); July 8, 2004 ( $t$ -statistic = 0.630); and June 16, 2005 ( $t$ -statistic = 0.670). We find three dates having negative but insignificant differences: March 30, 2004 ( $t$ -statistic = -1.190); July 8, 2005 ( $t$ -statistic = -1.160); and November 15, 2005 ( $t$ -statistic = -0.230). Finally, we find two dates having unexpected negative differences in market responses: May 14, 2002 ( $t$ -statistic = -3.840) and June 4, 2004 ( $t$ -statistic = -6.330).

Of the three dates expected to decrease the likelihood of IFRS adoption, we find two with negative differences in market responses as predicted: July 4, 2003 ( $t$ -statistic = -4.900) and October 1, 2004 ( $t$ -statistic = -5.690). The third date, November 19, 2004, has an unexpected positive difference ( $t$ -statistic = 3.940).

Overall, the results from Table 4 provide limited support that non-ADR firms responded more strongly to event dates affecting adoption of IFRS than ADR firms.

## 5. *Sensitivity*

Our sensitivity analyses focus on two areas. First, we validate our primary findings using alternative specifications. Second, we investigate unexpected observed market reactions, including whether non-IFRS related news systematically was released on our event dates of interest.

### 5.1 ALTERNATIVE SPECIFICATIONS

*Alternative Benchmark to Calculate CAR.* Because the adoption of IFRS affects all publicly traded European firms, it is difficult to assess the correct benchmark for calculating our market-adjusted cumulative return. Our primary analyses use the DJ STOXX Global 1800 Index to remove all non-IFRS economic effects reflected in market returns on our event dates. However, this may remove the effect that we seek to test; recall that this index includes the 600 largest firms from Asia, the Americas, *as well as* Europe. Thus, we alternatively run our analyses removing the 600 European firms from this index; this redefined benchmark alternatively assumes that any non-IFRS related market response will be captured in the market returns for firms domiciled in the Americas and Asia. Results are unchanged from those reported using aggregated event dates. Results are also unchanged using individual event dates, with the following exception: September 29, 2003 now has an unexpected negative sign.

*Equally-Weighted European Return* Our primary analyses in Table 3 uses a three-day return for the value-weighted portfolio of European firms. This will lead the return calculation to primarily reflect the larger European firms. Because we seek to document the European response across all firms, we alternatively perform these analyses calculating the three-day return using the equal-weighted portfolio of European firms. Results are unchanged under either aggregation of event dates (i.e., either Panel A or Panel B of Table 3). Results for individual event dates are similar to those reported in Panel C of Table 3, with the following exceptions. July 16, 2003 ( $t$ -statistic = 14.312) and November 15, 2005 ( $t$ -statistic = 1.644) are now positive and significant as predicted. In addition, two dates now report unexpected signs: June 4, 2004 is now negative, and November 19, 2004 is now positive.

*Alternative Bootstrap.* Our observed market responses for each European firm are aligned in calendar time, owing to the nature of our events. Our primary results are presented

using a bootstrap technique intended to accommodate, among other things, potential cross-correlations that could arise as a result. However, alternative bootstrap specifications exist to address this concern. Accordingly, we employ an alternative bootstrap calculation as follows. We obtain  $MACR_e$ , the market-adjusted cumulative return to event  $e$ , as described in Section 3.3.1. We also obtain  $MACR_x$ , the market-adjusted cumulative return to a randomly selected non-event date, as described in Appendix A. We then take the difference between these two measures. To implement the bootstrap estimation, we repeat this procedure 5,000 times for each event date, thus providing a distribution of differences. We then test for whether the equally-weighted average difference is statistically different from zero. Results under this alternative bootstrap technique are unchanged from those reported.

## 5.2 CONFOUNDING NEWS ON EVENT DATES AND UNEXPECTED MARKET REACTIONS

*Confounding News on Event Dates.* We examine the possibility of confounding news that could systematically affect inferences surrounding our event dates. First, we note that our analyses examine multiple event dates, with predicted effects that both increase and decrease the likelihood of IFRS adoption. This makes it less likely that confounding news will systematically affect our inferences, as the non-IFRS news events must be systematic across our event dates, and also systematic across our sub-sets of events that increase/decrease the likelihood of IFRS adoption. Second, we note that our analyses adjust for observed non-Europe market reactions, as well as general co-movements between European equity markets and the world markets. These adjustments provide additional controls, again making it less likely that contemporaneous news events could confound our inferences.

Nonetheless, we investigate the possibility of confounding news events in the following way. We obtain copies of the *Wall Street Journal* (both the U.S. and European editions) front pages and “World Markets” articles; we also obtain copies of the *Financial Times* (European edition) front page. We do this for each of the three days centered on our event dates, thus covering the full three-day returns we examine. We review the related news articles for each date, looking for events unrelated to IFRS adoption that could cause market movements and, in turn, affect our inferences. Not surprisingly, we note any number of news events on our dates of interest. However, we do not find evidence of systematic (directional) news corresponding with our predicted signs or with our observed returns, except as noted below.

*Unexpected Market Reactions on Event Dates.* Recall from our primary analyses in Table 3 that for two of our event dates (May 14, 2002; November 15, 2005), we document market returns having unexpected signs. We now investigate potential causes for these unexpected returns.

Our first event date with an unexpected market response is May 14, 2002, when EFRAG issued its draft recommendation that the EC endorse all extant IFRS. We predict a positive market response, as this represents a movement towards adoption of IFRS. However, we observe a negative market response of  $-0.0073$ . We review contemporaneous news on this event date, revealing two possible explanations. The first is a growing threat of war between India and Pakistan. However, the calculation of our market-adjusted cumulative returns, which includes a global index, likely accommodates this more macro type event that could negatively affect equity markets. The second is the increased likelihood that the European Central Bank (ECB) would increase interest rates due to inflationary pressures. This latter, owing to its primary effect on Europe, could cause the negative market response we observe.

Our second event date with an unexpected market response is November 15, 2005, when the EC endorsed the revised IAS 39, thereby eliminating one of the carve-out provisions. We predict a positive market response, as this further aligns the IAS 39 adopted in the EU with the IAS 39 used globally. However, we observe a negative market response of  $-0.0024$ . Similar to May 14, 2002, we examine contemporaneous news on this event date. Similar to the May 14 event, there is some evidence of increased likelihood of ECB raising interest rates. However, this is due to countervailing positive news that the EC grew at a greater than expected rate. Thus, it is less clear what is driving our observed market response for this event date.

## *6. Conclusion*

This study investigates the equity market reaction to events surrounding the adoption of IFRS in Europe. The debate regarding this financial reporting change involved both the general adoption of IFRS as well as specific disagreement relating to adopting IAS 39, the accounting standard for financial instruments. The adoption of IFRS in Europe represents a unique setting in which a substantial number of accounting standards would be changed for a broad cross-section of firms domiciled across countries having varied domestic accounting systems. Thus, this provides a unique empirical setting in which to examine equity investors' perception about convergence of accounting standards under IFRS.

We find that investors generally responded positively to events that increased the likelihood of adoption of IFRS, and negatively to events that decreased this likelihood. This suggests that equity investors perceived the expected benefits of more comparable financial reports and the prospects of increased capital flows outweighed the expected costs of implementation and any economic distortions arising from reduced local accounting diversity.

We also find limited evidence that these responses are attenuated for firms cross-listed in the U.S., consistent with investors perceiving the net benefits would be greatest for firms not already reporting under U.S. GAAP, which is closer to IFRS than most European domestic GAAP. Overall, our paper adds to the prior literature on diversity of accounting standards by providing evidence that European equity investors perceived net benefits from moves towards convergence under IFRS.

Two caveats apply to our analyses. First, we cannot disentangle whether the observed market response reflects investors' perceptions regarding convergence under IFRS or any expected change in reporting quality under IFRS. However, either interpretation is consistent with investors perceiving the benefits to adopting IFRS would exceed the costs. Second, our analyses focus on a particular set of financial statement users: equity holders. Accordingly, we are unable to provide insights regarding perceptions other user groups, such as debt holders, may have on the adoption of IFRS. We leave this area of inquiry to future research.

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## APPENDIX A

### Bootstrap Procedure

We employ the following bootstrap procedure (Li [2004]) to assess the statistical significance of  $MACR_e$ , the market-adjusted cumulative return for event  $e$ .

1. For each non-event day,  $x$ , we compute  $MACR_x$ , as the value-weighted three-day cumulative raw return to the portfolio of European firms less the three-day cumulative return for the Dow Jones STOXX Global 1800 Index, both centered on non-event date  $x$ .<sup>12</sup>
2. For each calendar year, we compile the distribution of non-event date returns,  $\mathbf{MACR} = [MACR_1, MACR_2, \dots, MACR_X]$ .<sup>13</sup>
3. For each calendar year, we randomly select, with replacement, 220 non-event  $MACR$  observations from the  $\mathbf{MACR}$  distribution to create a bootstrap distribution,  $\mathbf{MACR}_{BS} = [MACR_{BS1}, MACR_{BS2}, \dots, MACR_{BS220}]$ .<sup>14</sup>
4. From the bootstrap distribution, we compute the mean,  $\mu_{\mathbf{MACR}} = \frac{\sum_{i=1}^{220} MACR_{BSi}}{220}$  and the standard error of the mean,  $s.e._{\mathbf{MACR}} = \sqrt{\frac{\sum_{i=1}^{220} (MACR_{BSi} - \mu_{\mathbf{MACR}})^2}{220}} * \frac{1}{\sqrt{220}}$ .<sup>15</sup>
5. For each calendar year, we run 5,000 iterations of steps 3 and 4, to create a bootstrap distribution of means,  $[\mu_{\mathbf{MACR}1}, \mu_{\mathbf{MACR}2}, \dots, \mu_{\mathbf{MACR}5000}]$  and a bootstrap distribution of standard error of means,  $[s.e._{\mathbf{MACR}1}, s.e._{\mathbf{MACR}2}, \dots, s.e._{\mathbf{MACR}5000}]$ . We then compute the mean of each bootstrap distribution to represent the average non-event. Specifically, we compute  $MACR_{ne} = \frac{\sum_{x=1}^{5000} \mu_{MACRx}}{5000}$ . We also compute  $s.e._{ne} = \frac{\sum_{x=1}^{5000} s.e._{MACRx}}{5000}$ .
6. To assess the significance of each event in a given calendar year, we compute a  $z$ -statistic for  $MACR_e$  as  $z = \frac{(MACR_e - MACR_{ne})}{s.e._{ne}}$

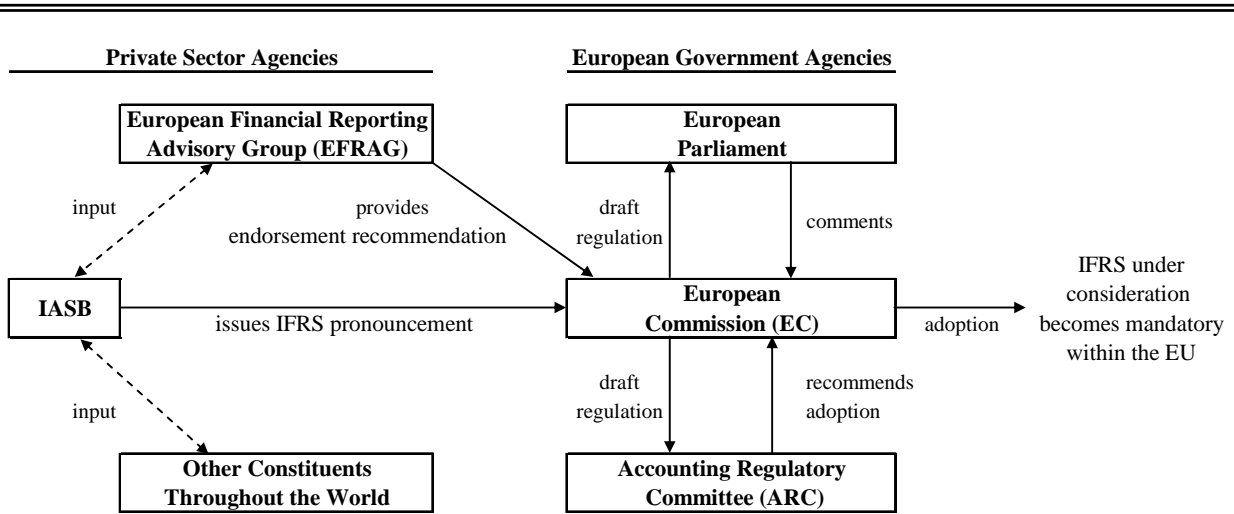
<sup>12</sup> Our non-event dates are selected so that there is no overlap with any day used to compute event date returns.

<sup>13</sup> Available price data allows us to compute  $X = 234, 232, 227$ , and  $236$  non-event date  $MACR$  estimates for calendar years 2002, 2003, 2004, and 2005, respectively.

<sup>14</sup> For pooled events, we randomly draw, with replacement, 750 non-event  $MACR$  observations from the 929 available non-event dates across all years.

<sup>15</sup> For pooled events, we replace 220 with 750, to reflect the number of observations randomly drawn from the multiple year pool of nonevent returns.

**FIGURE 1**  
*The Process of Adopting IFRS in the European Union*



Source: Brackney and Witmer [2005] and KPMG IFRG Limited.

**TABLE 1**  
*Key Events and Predicted Market Response Relating to Adoption of IFRS*

<i>Event Date</i>	<i>Description</i>	<i>Effect on likelihood of convergence under IFRS?</i>	<i>Predicted market response</i>
March 12, 2002	European Parliament passes resolution requiring all EU listed companies to use IFRS by 2005	Increase	+
May 14, 2002	EFRAG issues draft recommendation to endorse all extant IFRS	Increase	+
June 19, 2002	EFRAG issues final recommendation to endorse all extant IFRS, and supporting improvements to IAS 39	Increase	+
July 4, 2003	Chirac sends letter to Prodi expressing concerns about IAS 39 and its potential negative effect on Europe	Decrease	-
July 9, 2003	Bolkestein sends letter to Tweedie supporting goal of convergence, but expressing concern about IAS 39	Increase	+
July 16, 2003	ECOFIN and ARC support adoption of IFRS, but echo concerns about IAS 39	Increase	+
Sep 29, 2003	EC endorses all extant IFRS, except IAS 32 and IAS 39	Increase	+
Feb 3, 2004	Bolkestein pledges to postpone endorsement of IAS 32 and IAS 39 until issues are resolved; sets up consultative group to facilitate resolution	Increase	+
March 30, 2004	HSBC announces intentions to implement IAS 39 in full	Increase	+
June 4, 2004	EFRAG issues draft recommendation to endorse IAS 32 and IAS 39, with 6 of 11 members dissenting to the IAS 39 recommendation	Increase	+
July 8, 2004	EFRAG issues final recommendation to endorse IAS 32 and IAS 39, with same vote as for the draft recommendation	Increase	+
Oct 1, 2004	ARC recommends endorsement of IAS 39, but recommends provisions relating to the fair value option and portfolio hedging of demand deposits be carved out	Decrease	-
Nov 19, 2004	EC endorses IAS 39 with both carve-out provisions	Decrease	-
June 16, 2005	IASB issues revised IAS 39 with new fair value option	Increase	+
July 8, 2005	ARC recommends endorsement of revised fair value option, thereby eliminating one of the carve-outs	Increase	+
Nov 15, 2005	EC endorses revised fair value option, thereby eliminating one of the carve-outs	Increase	+

The above table summarizes our key events and predicted market responses to each event.

Key persons/organizations referred to in the events are defined as follows. The Accounting Regulatory Committee (ARC) is a public-sector body that opines on EC proposals regarding international accounting standards, and is comprised of representatives from each member state within the European Union and chaired by the EC. Frits Bolkestein (Bolkestein), a commissioner of the EC, is responsible for internal markets, taxation, and customs union. Jacques Chirac (Chirac) is the President of France. The European Commission (EC) was created to represent the European interest common to all Member States of the European Union, and has the right of initiative in the legislative process (i.e., it proposes the legislation on which the European Parliament and the Council decide to enact). The European and Financial Affairs Council (ECOFIN) is composed of the Economics and Finance ministers of the member states, and covers EU policy in a number of areas, including financial markets. The European Financial Reporting Advisory Group (EFRAG) is a private-sector body created by the accounting profession within Europe, and advises the EC on the technical assessment of IASB-issued accounting standards. The International Accounting Standards Board (IASB) is an independent, privately-funded accounting standard setter based in London and charged with creating International Financial Reporting Standards. Romano Prodi (Prodi) is the President of the EC. David Tweedie (Tweedie) is the Chairman of the IASB.

**TABLE 2**  
*Sample Composition by Country*

This table provides the sample composition by country. We include all available observations for listed firms within the twenty-five European member states during our sample period of 2002 – 2005. Note, several countries do not appear due lack of data. We present the total number of observations, American Depository Receipts (ADR) observations, and non-ADR observations. For each, we present the number of available firm-years, averaged across our sixteen event dates.

<i>Country</i>	<i>N</i>	<i>ADR</i>	<i>Non-ADR</i>
Austria	39	7	32
Belgium	65	2	63
Czechoslovakia	5	2	3
Germany	518	40	478
Denmark	80	6	74
Spain	94	8	86
Finland	84	5	79
France	424	36	388
Great Britain	970	83	887
Greece	150	8	142
Ireland	32	12	20
Italy	203	15	188
Netherlands	109	15	94
Norway	74	8	66
Poland	45	5	40
Portugal	38	5	33
Sweden	187	8	179
Switzerland	149	15	134
<b>Total</b>	<b>3,266</b>	<b>280</b>	<b>2,986</b>

**TABLE 3***Market Response to Events Affecting Adoption of IFRS in Europe*

This table provides univariate market responses to our sample event dates, testing the prediction that the European equity market will respond positively (negatively) to events increasing (decreasing) the likelihood of IFRS adoption. Panel A presents results aggregating all sixteen event dates. Panel B presents results aggregating event dates according to their predicted directional effect on adoption of IFRS: that is, aggregated by whether the date increases (thirteen event dates) or decreases (three event dates) the likelihood of IFRS adoption. Panel C presents results for the individual event dates.

In all three panels, we present the *CAR* and associated *z*-statistic as follows. For Panel A, *CAR* is the average market-adjusted cumulative return ( $MACR_e$ ) across all events minus the mean bootstrap market-adjusted cumulative return for non-events ( $MACR_{ne}$ ). If an event is predicted to reduce the likelihood of IFRS adoption in Europe,  $MACR_e$  is multiplied by  $-1$  before computing the across-event average. For Panel B, *CAR* is the average ( $MACR_e - MACR_{ne}$ ) across events pooled by predicted effect on IFRS adoption in Europe. For Panel C, *CAR* is each individual event's ( $MACR_e - MACR_{ne}$ ).  $MACR_{ne}$  and *Z*-statistics are computed in accordance with the bootstrap procedure outlined in Appendix A.

\*\*\*, \*\*, \* represents significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

**Panel A: All event dates aggregated**

<i>Description</i>	<i>Predicted market response (H<sub>1</sub>)</i>	<i>CAR (Z-stat)</i>
All sixteen event dates aggregated (i.e., for events expected to decrease the likelihood of IFRS adoption, we multiply our observed market response by negative one)	+	0.0025 *** (6.847)

**Panel B: Event dates aggregated according to their predicted directional effect on IFRS adoption**

<i>Description</i>	<i>Predicted market response (H<sub>1</sub>)</i>	<i>CAR (Z-stat)</i>
Thirteen event dates, predicted to increase the likelihood of convergence under IFRS	+	0.0021 *** (5.770)
Three event dates, predicted to decrease the likelihood of convergence under IFRS	-	-0.0046 *** (-12.647)

**Panel C: Individual event dates predicted to affect the likelihood of IFRS adoption in Europe**

<i>Event Date</i>	<i>Description</i>	<i>Predicted market response (H<sub>1</sub>)</i>	<i>CAR (Z-stat)</i>
March 12, 2002	European Parliament passes resolution requiring all EU listed companies to use IFRS by 2005	+	0.0015 * (1.651)
May 14, 2002	EFRAG issues draft recommendation to endorse all extant IFRS	+	-0.0073 (-7.825)
June 19, 2002	EFRAG issues final recommendation to endorse all extant IFRS, and supporting improvements to IAS 39	+	0.0026 ** (2.754)
July 4, 2003	Chirac sends letter to Prodi expressing concerns about IAS 39 and its potential negative effect on Europe	-	-0.0078 *** (-11.484)
July 9, 2003	Bolkestein sends letter to Tweedie supporting goal of convergence, but expressing concern about IAS 39	+	0.0044 *** (6.423)
July 16, 2003	ECOFIN and ARC support adoption of IFRS, but echo concerns about IAS 39	+	-0.0001 (0.203)
Sep 29, 2003	EC endorses all extant IFRS, except IAS 32 and IAS 39	+	0.0000 (0.010)
Feb 3, 2004	Bolkestein pledges to postpone endorsement of IAS 32 and IAS 39 until issues are resolved; sets up consultative group to facilitate resolution	+	0.0067 *** (12.307)
March 30, 2004	HSBC announces intentions to implement IAS 39 in full	+	0.0040 *** (7.270)
June 4, 2004	EFRAG issues draft recommendation to endorse IAS 32 and IAS 39, with 6 of 11 members dissenting to the IAS 39 recommendation	+	0.0047 *** (8.583)
July 8, 2004	EFRAG issues final recommendation to endorse IAS 32 and IAS 39, with same vote as for the draft recommendation	+	0.0059 *** (10.925)
Oct 1, 2004	ARC recommends endorsement of IAS 39, but recommends provisions relating to the fair value option and portfolio hedging of demand deposits be carved out	-	-0.0041 *** (-7.600)
Nov 19, 2004	EC endorses IAS 39 with both carve-out provisions	-	-0.0028 *** (5.071)
June 16, 2005	IASB issues revised IAS 39 with new fair value option	+	0.0044 *** (9.416)
July 8, 2005	ARC recommends endorsement of revised fair value option, thereby eliminating one of the carve-outs	+	0.0034 *** (7.250)
Nov 15, 2005	EC endorses revised fair value option, thereby eliminating one of the carve-outs	+	-0.0024 (-5.240)

**TABLE 4**

*Does the European Market Response to IFRS Adoption Differ Across Firm Types?  
ADR versus Non-ADR Firms*

This table provides univariate comparisons examining the differential market response to our IFRS adoption event dates across ADR versus non-ADR status, where ADR represents firms having American Depository Receipts.

Panel A presents results aggregating all sixteen event dates. If an event is predicted to reduce the likelihood of IFRS adoption in Europe, we multiply CAR by  $-1$  before computing the across-event average. Panel B presents event dates aggregated according to their predicted directional effect on adoption of IFRS: that is, aggregated by whether the date increases (thirteen event dates) or decreases (three event dates) the likelihood of IFRS adoption. Panel C presents results for the individual event dates.

\*\*\*, \*\*, \* represents significance for one-tailed tests at the 1%, 5%, and 10% levels, respectively.

**Panel A: All event dates aggregated**

<i>Description</i>	<i>Non-ADR CAR N = 47,776</i>	<i>ADR CAR N = 4,480</i>	<i>Predicted Sign (H<sub>2</sub>)</i>	<i>Difference (t-statistic)</i>
All sixteen event dates aggregated (i.e., for events expected to decrease the likelihood of IFRS adoption, we multiply our observed market response by negative one)	0.0068 (25.735)	0.0062 (2.626)	+	0.0006 (0.240)

**Panel B: Event dates aggregated according to their predicted directional effect on IFRS adoption**

<i>Description</i>	<i>Non-ADR CAR N = 38,818 N = 8,958</i>	<i>ADR CAR N = 3,640, N = 840</i>	<i>Predicted Sign (H<sub>2</sub>)</i>	<i>Difference (t-statistic)</i>
Thirteen event dates, predicted to increase the likelihood of convergence under IFRS	0.0068 (25.735)	0.0075 (2.570)	+	-0.0007 (0.240)
Three event dates, predicted to decrease the likelihood of convergence under IFRS	-0.0071 (-13.251)	-0.0009 (-0.709)	-	-0.0062 *** (-4.660)

**Panel C: Individual event dates predicted to affect the likelihood of IFRS adoption in Europe**

<i>Date</i>	<i>Description</i>	<i>Non-ADR CAR N = 2,986</i>	<i>ADR CAR N = 280</i>	<i>Predicted Sign (H<sub>2</sub>)</i>	<i>Difference (t-stat)</i>
March 12, 2002	European Parliament passes resolution requiring all EU listed companies to use IFRS by 2005	0.0091 (8.894)	0.0019 (0.981)	+	0.0072** (3.310)
May 14, 2002	EFRAG issues draft recommendation to endorse all extant IFRS	-0.0213 (-21.105)	-0.0098 (-3.503)	+	-0.0115 (-3.840)
June 19, 2002	EFRAG issues final recommendation to endorse all extant IFRS, and supporting improvements to IAS 39	0.0227 (22.428)	0.0082 (3.040)	+	0.0145*** (5.000)
July 4, 2003	Chirac sends letter to Prodi expressing concerns about IAS 39 and its potential negative effect on Europe	-0.0150 (-13.568)	-0.0022 (-0.916)	-	-0.0129*** (-4.900)
July 9, 2003	Bolkestein sends letter to Tweedie supporting goal of convergence, but expressing concern about IAS 39	0.0246 (22.332)	0.0118 (5.668)	+	0.0129*** (3.560)
July 16, 2003	ECOFIN and ARC support adoption of IFRS, but echo concerns about IAS 39	0.0191 (17.440)	0.0078 (3.755)	+	0.0113*** (4.810)
Sep 29, 2003	EC endorses all extant IFRS, except IAS 32 and IAS 39	0.0113 (11.690)	0.0007 (0.364)	+	0.0106*** (5.040)
Feb 3, 2004	Bolkestein pledges to postpone endorsement of IAS 32 and IAS 39 until issues are resolved; sets up consultative group to facilitate resolution	0.0126 (13.566)	0.0088 (3.362)	+	0.0038 (1.370)
March 30, 2004	HSBC announces intentions to implement IAS 39 in full	0.0008 (0.939)	0.0448 (1.208)	+	-0.0044 (-1.190)
June 4, 2004	EFRAG issues draft recommendation to endorse IAS 32 and IAS 39, with 6 of 11 members dissenting to the IAS 39 recommendation	-0.0061 (-8.171)	0.0053 (3.221)	+	-0.0114 (-6.330)
July 8, 2004	EFRAG issues final recommendation to endorse IAS 32 and IAS 39, with same vote as for the draft recommendation	0.0034 (4.647)	0.0022 (1.175)	+	0.0013 (0.630)
Oct 1, 2004	ARC recommends endorsement of IAS 39, but recommends provisions relating to the fair value option and portfolio hedging of demand deposits be carved out	-0.0141 (-16.796)	-0.0009 (-0.417)	-	-0.0132*** (-5.690)
Nov 19, 2004	EC endorses IAS 39 with both carve-out provisions	0.0079 (11.097)	0.0005 (0.280)	-	0.0074 (3.940)
June 16, 2005	IASB issues revised IAS 39 with new fair value option	0.0070 (7.815)	0.0058 (3.917)	+	0.0012 (0.670)
July 8, 2005	ARC recommends endorsement of revised fair value option, thereby eliminating one of the carve-outs	0.0037 (4.671)	0.0056 (3.967)	+	-0.0019 (-1.160)
Nov 15, 2005	EC endorses revised fair value option, thereby eliminating one of the carve-outs	0.0008 (1.158)	0.0012 (0.827)	+	-0.0004 (-0.230)