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Abstract: We investigate the effects of mandatory IFRS adoption in the EU on accounting conservatism, an essential feature of earnings quality, and the way large audit firms (Big 4) interact with it. We use an extensive database of more than 5,000 IFRS adopters from 22 EU countries, observed over 2001-2008. The main findings are that: 1) conditional conservatism, as proxied by the asymmetric timeliness of bad vs. good news, has *decreased* under IFRS, notably among Big 4 audits; 2) the country-level magnitude of this IFRS effect is positively associated with the distance between IFRS and pre-existing local GAAP; 3) Big 4 auditors are associated with more aggressive earnings under IFRS, with simultaneous increase (decrease) in good (bad) news timeliness; 4) the cross-country variability in timeliness metrics is significantly lower among Big 4 vs. non-Big 4 audits, whatever the reporting regime (local GAAP or IFRS); and 5) unconditional conservatism is higher under IFRS in the presence of a Big 4 auditor. Taken together, these findings suggest that the EU-wide mandatory IFRS adoption has hampered accounting quality, and then strongly challenge the *one size fits all* principle.

1. Introduction

The mandatory adoption of IFRS in the European Union, as from financial year 2005, has been depicted as the biggest revolution in the history of accounting harmonization (e.g., Daske et al. 2008). Some five years after this "big bang", one may ask a simple and legitimate question: what about the consequences of the change to IFRS in terms of accounting quality? Such a question is of great interest for practitioners, regulators and academics within Europe; but it is also strongly relevant to other, non-European countries being on the move to adopt IFRS sooner or latter (e.g., Canada in 2011; the US in their convergence strategy).

In this paper, we investigate the effects of IFRS reporting on accounting conservatism for European listed companies. We focus of conservatism for several reasons. First, conservatism is an essential property of accounting quality, recognized worldwide in accounting standards as a significant attribute of the reliability accounting numbers. Second, and following, conservatism is conjectured to be an important device for efficient contracting (Watts 2003). It is empirically found to mitigate shareholder-bondholder conflicts and to reduce firms' debt costs (Ahmed et al. 2002; Zhang 2008; Li 2009), and marginally the *ex ante* cost of equity (Li 2009). Third, however, the concept of conservatism has been viewed and operated differently across countries, depending mostly on their culture, legal regime, financing system, and related reporting incentives. Hence, we posit that the effects of IFRS on conservatism differ in magnitude according to the nature of the pre-existing local GAAP in each country. Specifically, because many Continental European countries are rather insiders, debt-oriented financing systems (Nobes 1998), one may expect that the use of conservatism before IFRS was mainly unconditional (i.e., persistent and news independent) in these countries. Conversely, Anglo-Saxon European countries, rather turned to outside equity financing and capital markets, are likely to favor conditional conservatism (i.e., transitory and news

dependent) in their financial reporting incentives, in order to provide more informative accounting numbers to investors.

Hence, the consequences of IFRS adoption on accounting conservatism are likely to be asymmetric and country-specific. That is, being investor-oriented accounting standards, IFRS might have globally increased conditional conservatism, and decreased unconditional conservatism. However, this effect is likely to be much weaker in countries with already investor-oriented GAAP before the IFRS adoption. We empirically investigate this issue among the EU countries that mandated IFRS adoption as from financial year 2005.

Using an extensive database of more than 5,000 IFRS adopters from 22 (of the 27) EU countries concerned by EC Regulation 2002/1606, and observed across 2001-2008, our main findings resume as follows. First, we find that conditional conservatism, as proxied by the asymmetric timeliness of good vs. bad news, has *decreased* under IFRS. Segmented analyses reveal that this effect concerns industrial or commercial entities (i.e., non-financial, -real estate, or -utilities companies), timely mandatory IFRS adopters, and Big 4 audits. Second, cross-country analyses show that the magnitude of the IFRS effect is positively associated with the distance between IFRS and the pre-existing local GAAP. Third, more specifically, Big 4 auditors are associated with more aggressive earnings under IFRS, with simultaneous increase (decrease) in good (bad) news timeliness. Fourth, the cross-country variability in timeliness metrics is significantly lower among Big 4 vs. non-Big 4 audits, whatever the reporting regime (local GAAP or IFRS). Fifth, we find higher levels of UC for Big 4 audits, also amplified by IFRS adoption. This last point is consistent with findings about CC regarding the preemptive (substitutive) role of UC over CC modeled in the literature.

To the extent that conditional conservatism is economically relevant in reducing contracting costs or information asymmetries, and is thus associated with earnings quality, these findings suggest that the EU-wide mandatory IFRS adoption has hampered accounting quality. In other

words, generalizing the use of IFRS under the *one size fits all* principle appears to be counterproductive for listed entities, notwithstanding the costs of such an "accounting revolution".

We contribute to the financial accounting and IFRS literature in four ways. First of all, we extend the empirical literature on the accounting effects of IFRS adoption from a *voluntary* to a *mandatory* setting, which alleviates the selection bias induced by firm reporting incentives in prior research. Second, we provide an extensive analysis of the IFRS effects on conservatism over a four-year window, thus allowing for transitory effects. Third, we extend the law and finance literature to the context of IFRS and large auditors (Big 4) incentives, testing for associations between the conservative properties of accounting numbers and country-specific attributes related to investor protection or auditor litigation (Bushman and Piotroski 2006; Brown et al. 2006; Gassen et al. 2006; Ball et al. 2008). Fourth, finally, we provide empirical support for an emerging research stream in international accounting, which tends to explain and demonstrate that the IFRS cannot lead to a perfect harmonization of accounting reports *per se*, because of the survival of national differences in their implementation (Nobes 2006).

The remainder of the paper is organized as follows. Section 2 defines the concept of conservatism and its components. Section 3 develops testable hypotheses about the IFRS consequences on conservatism, and about the way large audit firms (Big 4) may interact with these. Section 4 deals with methodological issues and Section 5 reports empirical findings. Finally, Section 6 summarizes our findings and their implications.

2. The concept of accounting conservatism and its interpretation

2.1 Conservatism according to accounting standards

According to accounting standards in general, the definition of conservatism remains

conceptual, with no explicit authoritative guidance. The FASB position (Statement of

Concepts No. 2) refers to "a prudent reaction to uncertainty to try to ensure that uncertainty

and risks inherent in business situations are adequately considered." (Givoly et al. 2007: 67).

The IFRS Framework (1989) also refers to prudence, with more nuances however:

> Reliability is affected by the use of estimates and by uncertainties associated with items recognised and measured in financial statements. These uncertainties are dealt with, in part, by disclosure and, in part, by exercising prudence in preparing financial statements. Prudence is the inclusion of a degree of caution in the exercise of the judgements needed in making the estimates required under conditions of uncertainty, such that assets or income are not overstated and liabilities or expenses are not understated. However, prudence can only be exercised within the context of the other qualitative characteristics in the Framework, particularly relevance and the faithful representation of transactions in financial statements. Prudence does not justify deliberate overstatement of liabilities or expenses or deliberate understatement of assets or income, because the financial statements would not be neutral and, therefore, not have the quality of reliability. [F.36-37]

Whatever the vision of prudence, one general and most visible consequence of conservative

accounting is the undervaluation of the firm's net assets (Watts 2003; Givoly et al. 2007).

Notwithstanding this, analyzing and interpreting conservatism has resulted in the specification

of two distinctive notions, namely conditional and unconditional conservatism (Ball and

Shivakumar 2005).

2.2 Conditional or unconditional: two different forms of conservatism

Conditional conservatism (hereafter CC) refers to a higher degree of verifiability for the book

recognition of gains vs. losses: losses are recognized as soon as they are likely, whereas gains

can be stated as revenues only when they are [virtually] certain. This verifiability condition is

met if the gain is materialized by a cash inflow, or guaranteed by a contractual arrangement

(e.g., an invoiced sale). CC is also referred to as "news dependent" conservatism; it leads to

the book recognition of reversible accruals in anticipation of future transactional losses made

by the firm. Accounting treatments that result in CC include, for instance, the lower-of-cost-

or-market rule used to evaluate assets such as inventories; in these cases, the depreciation of an asset just anticipates a bad news about that asset. Basu (1997) proposes a seminal model to capture CC, based on the asymmetric earning-return timeliness of bad vs. good news.

In parallel of this apparently "good" conservatism, a more pronounced form of conservatism refers to unconditional conservatism (hereafter UC). This later dimension denotes a persistent, systematic (news independent) understatement of net assets. It is widely depicted as an excessively pessimistic vision of the economic realty by accountants ("bad conservatism"), e.g., the non-recognition of some intangible assets or systematic expensing of R&D costs, the accelerated amortization of fixed assets, and the systematic overstatement of provisions. Several, rather noisy proxies have been used in the literature to capture UC, e.g., persistently negative accruals (Givoly and Hayn 2000; Ahmed et al. 2002), or more commonly the overstatement bias component of the market-to-book ratio (Beaver and Ryan 2000).

2.3 The relation between conditional and unconditional conservatism

Gassen et al. (2006) examine the theoretical and empirical linkage between measures of CC and UC. They conjecture that, given an optimal level of *overall* conservatism, CC and UC are substitutes, i.e., negatively correlated. More specifically, they explain that UC – the larger in magnitude – is likely to pre-empt CC because it generates an accounting slack to managers, offering more possibilities for transitory aggressive (risky and less conservative) accounting choices. Using data from 23 countries during 1990-2003, and controlling the Basu (1997) model with UC proxies, they empirically confirm that partial substitution effect. Considering US data during 1970-2001, Pae et al. (2005) confirm the negative relation between CC and the price-to-book ratio: they find that the asymmetric timeliness in the book recognition of bad vs. good news is significantly greater in portfolios of firms with low price-to-book ratios, as compared to portfolios of firms with high price-to-book ratios. To the extent that the price-to-book ratio captures (with noise) the level of UC, their findings are supportive of the pre-

emptive action of UC on CC. Practically, adopting an *ex ante* conservative accounting policy by, for instance, systematically refusing to recognize intangible assets (UC) obviously makes the occurrence of *ex post* depreciations of these assets (CC) impossible.

More generally, the negative relation between CC and other proxies of *ex ante* (news independent) conservatism has been modeled by Beaver and Ryan (2005) and Roychowdhury and Watts (2007), and documented empirically by many previous studies.[1] Specifically, Givoly et al. (2007) report negative intra-industry correlations – although non-significant most of the time – between CC and several measures of *ex ante* conservatism, including the market-to-book ratio, or the estimated amount of "hidden reserves". Overall, this suggests that CC, defined as the asymmetric timeliness of losses and gains recognition, is a somewhat singular component of the overall conservatism.

3. Effects of IFRS adoption on conservatism in the European setting: hypotheses

3.1 Global approach

Theory and historical perspectives

In spirit, for Continental European countries, IFRS implies a drastically change from a rules-based accounting system to a principles-based one. Overall, this change is associated with accounting treatments that require more estimates, that are more forward looking, and that give a larger place to the professional judgment of accountants and auditors (Hoogendoorn 2006). The exercise of this professional judgment then requires a thorough understanding and consideration of the firm's economic environment; hence, by nature, IFRS accounting is more news-dependent that Continental rules-based GAAP. The relation with CC and UC is not straightforward, however.

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[1] As developed by Givoly et al. (2007: 97): Ball et al. (2000), Basu (2001), Francis et al. (2004), Giner and Rees (2001), Hanna (2003), Pae et al. (2005), Pope and Walker (2002).

As pointed out by Basu (2005: 314), historical evidence shows that news-dependent accounting treatments (e.g., lower-of-cost-or-market rule for inventory, assets write-downs) have been required in France, Prussia or Italy since de 17th century, or even before. It is then untrue to argue that CC does not exist in Continental accounting systems. Besides, the asymmetric timeliness of gains and losses recognition is not obvious in IFRS; the contrary is even stated, i.e., the principle of a symmetry in the recognition of assets and liabilities. Hence, from normative and theoretical views, the *direct* effects of IFRS transition on CC are difficult to anticipate.

In contrast, accounting historians note that most forms of UC were created more recently, in the 19th century, by tax and other regulatory incentives (e.g., product market regulation). In that perspective, given that Continental accounting systems are strongly aligned with tax rules, it is likely that they have permitted a higher degree of UC as compared to Anglo-Saxon GAAP or IFRS. Due to the pre-emptive role of UC on CC, this higher level of UC under Continental GAAP might have had *indirect* decreasing effects on the level of CC. Under this view, the move to IFRS implies -- whether in its Framework and in many specific standards -- the abandonment of UC accounting practices, and thus the return to more CC accounting practices. In brief, the effects of IFRS adoption in Europe would resume to (1) a decrease in the level of UC, and (2) a marginal *indirect* increase in the level of CC.

Empirical evidence on the conservatism effects of IFRS adoption is emerging. Barth et al. (2008) investigate the consequences of IAS adoption on earnings quality, using a sample of 327 firms (from 21 countries) that adopted IAS [mostly] voluntarily between 1994 and 2003. During the post-adoption period, they provide evidence that the incidence of a large negative net income -- which they advocate to be a proxy for timely loss recognition -- is significantly more frequent among IAS firms as compared with a matched sample of non-IAS firms. They also document that such occurrence increased in the post- vs. pre-adoption period for IAS

firms, then acting as their own control. Finally, they find that earnings sensitivity to bad news is stronger for IAS firms (vs. non-IAS firms), and during the post- vs. pre-adoption period for IAS firms, but two-by-two differences remain globally insignificant.

Although quite strong, these preliminary findings address a voluntary adoption setting, and are not conclusive in terms of CC or UC. They suffer a potentially significant measurement bias, as it is not straightforward to assimilate an arbitrarily important loss[2] to the manifestation of more conditionally conservative accounting policies.

Normative perspectives

Several accounting standards lead us to argue that accounting practices under IFRS should result in less UC in the companies' balance sheet, and then to a higher degree of CC, as compared to the pre-existing national GAAP:

- The drop of goodwill amortization, replaced by impairment tests and depreciations when required by the economic circumstances (IFRS 3). The later method is by nature more news-dependent than the former, which was systematic and news-independent;

- The *obligation* to recognize in-house intangible assets (e.g., development costs) that meet the activation criteria of IAS 38. In most Continental national GAAP, the recognition of in-house intangibles remains *optional*, which gives more latitude to UC accounting choices. In contrast, the activation of intangibles gives place to more future CC depreciations;

- The abandonment of any accelerated or "fiscal" amortization of fixed assets – replaced by economically consistent, generally straight-line amortization methods – and the IAS 16 option for fair value accounting of fixed assets, should both result in more economically

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[2] Barth et al. (2008) characterize as a "large negative net income" the situation when the ratio of net income to total assets is inferior to –20 %.

relevant valuation of the firm's assets, which means less UC and potentially more CC in the future;

- Regarding the definition of liabilities, IAS 37 tends to restrict the excessive use of provisions, notably by precluding the provisions for future losses;[3]

- Finally, IFRS standards completely ban the constitution of "hidden" reserves, as it is the case in the German accounting system.

Hence, as a whole, we state the following first hypothesis:

H1a: The levels of accounting CC (UC) have globally increased (decreased) with the adoption of IFRS in Europe.

3.2 Approach moderated by accounting diversity

The pre-existing large diversity across national European accounting systems (Joos and Lang 1994) may result in varying consequences of the IFRS revolution at the country levels, depending on the nature of the pre-existing local accounting and financing traditions.

Overview of differing accounting traditions in Europe

Overall, the Anglo-Saxon European countries (UK and Ireland),[4] already submitted to a principles-based accounting regime and economic "true and fair view" approach, should have experienced fewer changes, if not at all, than the other Continental or Scandinavian countries, strongly influenced by creditor protection, tax conformity and regulatory principles. The most pronounced opposition to the Anglo-Saxon accounting system is widely acknowledged to be the German *legalist* system (Nobes 2006), which offers many ways of understating assets and overstating liabilities, and thus provides the strongest propensity to UC. Examples of such UC

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[3] Note that the French GAAP had catch up with IFRS on that point since financial years 2002, thus before their mandatory adoption.

[4] Nobes (1998) argues that Irish and UK GAAP are very similar. Benston et al. (2006: 180) explain that the UK Financial Reporting Council considers national accounting requirements as substantively similar to IFRS provisions.

rules are: the generalization of the historical cost principle with no revaluation possibilities for fixed assets, the compulsory expensing of any R&D costs, the authorization of LIFO inventory accounting, the possibility to create "hidden" reserves, and the requirement that tax deduction is contingent to accounting expense (Giner and Rees 2001: 1298). The French accounting system also has a strong legalist influence, but has slightly evolved toward the "true and fair view" approach, e.g., by allowing fixed assets revaluation or the capitalization of some R&D costs.

Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden) hold an intermediate position between the so-called Anglo-Saxon and Germanic continuum. Traits of political economics traditionally refer to a large public sector with strong State involvement in social welfare and education. Legal and financing traditions are mostly rooted in code-law principles and insider bank-oriented systems, although nuances are required. Denmark and Norway are closer to the Anglo-Saxon model, with more developed equity markets, whereas Sweden and Finland remain more strongly influenced by the German legalist tradition (Elling 1993; Nobes 2008). With regard to accounting standards, the Nordic countries have had a tradition of combined tax and accounting rules until the 1990s, which disappeared progressively in the move towards international harmonization. Local accounting rules are only broadly defined by the Companies Acts, with the accounting profession now playing a substantial part in the specification of local GAAP; on this issue, the Danish auditing profession has been acting as a precursor for the implementation of IAS and for cooperation with the IASB (Elling 1993).

On the distance between local GAAP and IFRS

The degree of divergence between national GAAP and IAS/IFRS has received much attention from academics since the early 2000s. Ashbaugh and Pincus (2001) use the number of differences between national GAAP from 13 countries and IAS relating to disclosure requirements and valuation methods (in 1993). They find that analyst forecast errors are a)

positively associated with these *distance* metrics, and b) decrease after IAS-adoption by companies in these countries. This suggests that analysts efficacy in treating accounting information depends on the use of internationally harmonized accounting standards.

Ding et al. (2005) investigate 52 countries and report that cultural traits (e.g., individualism, autonomy, hierarchy) are associated with the degree of divergence between domestic GAAP and IAS (according to the GAAP 2001 report, see Nobes 2001), whereas the legal origin dichotomy is not. In a subsequent study, Ding et al. (2007) observe that the more developed the equity financing tradition, the closer are domestic GAAP to IAS in terms of overall coverage and valuation methods. Another noticeable finding is that the lack of coverage by domestic accounting rules (vs. IAS) seems to induce more earnings management.

More recent investigations have focused on economic benefits of IFRS adoption, and notably its capital market effects (stock liquidity, cost of equity, Tobin's Q). Overall, they tend to support the existence of benefits associated with IFRS adoption, although the evidence is mixed as to whether those benefits rather pertain to voluntary (Daske et al. 2008) or mandatory (Li 2010) IFRS adopters. Whatever the adoption timing, both studies converge in the idea that the strength of legal enforcement rules, and the discrepancies between domestic GAAP and IFRS, significantly condition the market effects of IFRS adoption. More specifically, the benefits in terms of stock market liquidity (Daske et al. 2008) and cost of equity (Li 2010) are larger when the differences between local GAAP and IFRS are important. Li (2010) further concludes that increased disclosure requirements, and enhanced information comparability appear as two levies behind the cost of equity reduction.[5]

Overall, this international accounting literature supports the view that the effects of IFRS switch on earnings quality, and specifically accounting conservatism, are likely to depend on

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[5] Li (2010) uses two indices from the GAAP 2001 study reported in Nobes (2001): the additional disclosure required by IFRS relative to local standards, and the number of inconsistencies between local standards and IFRS. It is worth noting that Ireland and the UK are the only two countries for which IFRS adoption implies "0" additional disclosures.

the "size" of the switch, i.e., the distance between local GAAP used before the switch and IFRS. If the magnitude of the IFRS effects on CC and UC remains mostly an empirical question in Continental and Scandinavian countries, we hypothesize that these effects are not discernable for Anglo-Saxon accounting settings. Therefore, we propose the following complement hypothesis to H1a:

H1b: The magnitude of the change in accounting CC (UC) following IFRS adoption is positively associated with the distance between local accounting standards and IFRS. This change is insignificant for Anglo-Saxon European countries.

3.3 The remaining intra-EU diversity under IFRS

One final concern with the effects of IFRS adoption in Europe is the idea that the IFRS referential per se is unlikely to lead to an effective accounting harmonization because of the diversity of Member States accounting traditions and legal systems, and the likely continuation of national accounting practices under IFRS. Nobes (2006) hammers in that question and explains that IFRS offer numerous opportunities to allow diverging accounting treatments, depending on the differing reporting incentives that characterize the European financing/legal systems. He proposes eight sources of divergences in the implementation of IFRS: (1) the existence of different versions for some of the standards (e.g., the amendment of IAS 39 in 2005), (2) the translation of IFRS into European languages, which may have caused a loss of substance as compared to the original English words, (3) the reference to the principles-based Framework when a point is not dealt with, leaving considerable room for interpretation and for the continuation of national practices, (4) the remaining of overt, *explicit* options in IFRS in terms of accounting treatments or valuation methods, (5) the existence of covert, *implicit* options because of many vague criteria (e.g., the recognition of a provision based on the probability of an outflow of resources, IAS 37), (6) the extensive use of estimations (e.g., discounted cash-flows or net realizable values for impairments, IAS 36),

(7) the transitional options left for first-time adoption by IFRS 1, and (8) the fact that enforcement rules (e.g., securities laws, auditor responsibility regime) remain country-specific and thus of differing effectiveness (La Porta et al. 2006). In a more recent paper, Nobes (2008) argues that the question of *accounting classification* is still of relevance under the IFRS era. He notably demonstrates that a significant contingency exists across EU member states between maintaining the requirement of national accounting rules for the purpose of unconsolidated reporting, and being classified as a weak equity, government-driven and tax-oriented accounting system.

In practice, European-wide investigations by accounting practitioners tend to confirm that most of the IFRS options reflect the pre-IFRS national accounting culture and practices. For instance, Ernst & Young (2006: 11) stress that most companies implemented the IFRS referential in a way to minimize its effects, as compared to the pre-existing national GAAP format of financial reporting; and that many of the overt options made under IFRS illustrate the local GAAP practice. In France, more specifically, Benabdellah (2008) documents that virtually all the large groups maintained an historical cost valuation of fixed assets, and that a majority continued to expense interests on fixed assets acquisition. Investigating the IFRS transition period, Cazavan-Jeny and Jeanjean (2009) find that the options offered by IFRS 1 were most of the time used to offset the consequences of mandatory adjustments, in a way to *smooth* as much as possible the effects of the IFRS transition on financial aggregates.

Overall, this suggests that the properties of accounting earnings are likely to remain heterogeneous after the adoption of IFRS in Europe, and that "perfect" accounting harmonization per se cannot be reached. Transposed to our conservatism issue, this leads to a third alternative hypothesis to H1a:

H1c: The levels of accounting CC (UC) remain different across European countries after the adoption of IFRS.

3.4 How should auditor quality interact with conservatism pre- and post-IFRS?

The actions of auditor, especially large auditors (the Big N), on reporting conservatism has been widely hypothesized to depend on their litigation risk. The empirical literature on earnings management tends to demonstrate that the Big N constraint on [income-increasing] accounting policies is mostly observed in the US environment. In non-Anglo-Saxon countries, the Big N generally do not differentiate from other, less brand-named auditors.[6]

Ewert (1999) proposes an equilibrium model for standard setting and shows that (vague) principles-based standards result in a higher financial reporting quality because they place more pressure on the part of auditors. In the US, Basu et al.'s (2001, 2002) findings are consistent with the hypothesis that CC varies over time with changes in auditor legal liability regime: the asymmetric timeliness of gains and losses recognition is larger in periods of intensive shareholder litigation. In addition, Basu et al. (2001) provide evidence that annual earnings from Big 8 auditees are more (less) timely in reporting bad (good) news than annual earnings from non-Big 8 auditees. They interpret this finding by the fact that the Big 8 have to cope with a greater legal liability exposure than smaller US auditors, because of their *deep pockets*. This interpretation is also supported by Krishnan (2007) in the wake of the Enron scandal: ex-Andersen clients who switched to another Big 4 auditor strongly increased their level of CC in year 2002 vs. year 2001. In brief, large audit firms have market-based incentives to reduce their litigation risk exposure by producing more CC accounting reports (Krishnan 2007).[7]

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[6] As surveyed by He et al. (2007), seven US studies out of ten support the mitigating effect of the Big N on discretionary accruals. In contrast, none of the eight non-Anglo-Saxon studies spanned by He et al. support a significant effect of Big N auditor on absolute or signed discretionary accruals.

[7] In the context of the financial downturn experienced by the Hong Kong market place (1996-1997), Gul et al. (2002) observe that auditors responded to a general decrease in CC by higher audit fees, suggesting more substantive audit testing to reduce their litigation risk. This relation is, however, not interacted with auditor type (Big N vs. non-Big N).

However, the European litigation environment remains far less threatening for auditors, even in the UK, although the latter country symbolizes the origins of common law regimes (Ball et al. 2000; Huijgen and Lubberink 2005).[8] However, the UK litigation risk remains the highest of all EU countries, as denoted by the litigiousness indices used by Wingate (1997).[9] With the exception of Anglo-Saxon EU countries, it is unlikely that large auditors fear for deep pockets and differentiate from smaller auditors by adopting more conservative accounting practices in the pre-IFRS period. In the post-IFRS period, this non-differentiation argument could be challenged. The main reason is not the litigation risk itself, which remains country-specific, but the idea that IFRS standards provide an opportunity for the Big N to influence accounting choices in the direction of a more conditionally conservative attitude. Indeed, several practitioners defend the view that the large audit firms have developed comparable guidelines and consulting services regarding the implementation of IFRS (Hoogendoorn 2006). Others contend that the Big N are largely involved in the choices of options by listed companies at the time of the IFRS transition (Véron 2007; Alexander et al. 2008). Hence, the adoption of IFRS, implying greater accounting estimations and professional judgment, is likely to provide the large audit firms with more opportunities to import the Anglo-Saxon accounting practices in Europe (Basu 2001). Given that CC is depicted as a typical North-American trait of accounting properties (Ball et al. 2000), we state the following hypothesis:

H2a: The increase (decrease) in accounting CC (UC) following the adoption of IFRS is larger for Big N-audited companies than for non-Big N-audited ones. This Big N effect is weak in magnitude for Anglo-Saxon European countries.

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[8] Huijgen and Lubberink (2005: 1281) provide four reasons for the more intensive litigation environment in the US vs. the UK: (1) the legal principle of 'fraud on the market', which gives US investors the right to sue a company even if they have not read its financial reports, whereas a contractual obligation must be proved in the UK setting, (2) the UK rule that the loser of a lawsuit has to pay the total legal costs, (3) the fact that UK lawyers generally do not charge contingent fees on the damages awarded to their clients, and (4) the lower use of class actions suits, which are more difficult to organize in the UK.

[9] Wingate (1997) uses privately developed litigation indices used by an insurance company to set the premium of one of the Big Four audit firms. Auditor litigation risk is measured on a one to ten scale, except for the US which are set at 15. UK and other common law countries generally rank at 10.

Finally, the Big N are often cited for their internationally recognized quality standards and auditing methods. Thus, they represent a vector of harmonization, i.e., they are likely to reduce the discrepancies among the properties of accounting earnings reported by companies from different countries (Alexander et al. 2008). Following the mandated harmonization of accounting standards according to IFRS, Europe then offers a relevant setting to examine the contribution of the large audit firms in terms of homogeneity in accounting treatments. Hence, we posit that intra-European cross-country differences in accounting conservatism are smaller among Big N-audited companies as compared to non-Big N-audited ones:

H2b: Following the adoption of IFRS in Europe, the cross-country variability of CC measurements is smaller for Big-N audited companies than for non-Big N-audited ones.

4. Methodology

4.1 Measures and models of conditional conservatism

Despite several critics and limitations, the Basu (1997) earning-return stepwise regression is still the most relevant way to capture the asymmetric timeliness in the incorporation of bad vs. good news in accounting earnings (Ryan 2006; Ball et al. 2009). Hence, our conditional, news-dependent form of conservatism is estimated using the Basu asymmetric timeliness approach. Formally, the Basu asymmetric timeliness model is defined as follows:

$$EPS_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} R_{it} + \varepsilon \qquad (1.1)$$

Where (all non-dummy variables scaled by the beginning of the period market price):

- EPS_{it} = earning per share after extraordinary items[10] for firm i in financial year t;

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[10] Following Pope and Walker (1999), and more recently Raonic et al. (2004), we consider EPS *after extraordinary items* to appraise more extensively the extent of economic transactions and their effects on CC. The notion of "extraordinary item" has been banned from IFRS, and remains marginal or even absent in most European local GAAP. As explained by Worldscope, EPS generally include extraordinary items (even for the UK since 1993). Some accounting standards (e.g., France) defined a kind of "exceptional" items, which is closer to the notion of unusual or non-recurring items in IFRS. These items are systematically included in the "EPS" item proposed by Worldscope; robustness checks test the stability of our finding when using the classic "EPS" item instead of the EPS after extraordinary items.

- D_{it} = dummy variable coded one for a "bad news" position (i.e., negative R_{it}), and zero otherwise;

- R_{it} = contemporaneous buy-and-hold fiscal year return[11] (including dividend paid during the period), adjusted for stock dividends and capital contributions.

We examine the effect of IFRS adoption on CC by interacting the Basu seminal model with an IFRS reporting dummy. Model (1.1) is then refined as follows:

$$EPS_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} R_{it}$$

$$+ \beta_4 IFRS_{it} + \beta_5 IFRS_{it} D_{it} + \beta_6 IFRS_{it} R_{it} + \beta_7 IFRS_{it} D_{it} R_{it} + \varepsilon \quad (1.2)$$

Where EPS_{it}, D_{it} and R_{it} as previously defined, and $IFRS_{it}$ is a dummy variable coded one if firm i reports under IFRS for financial year t, and zero otherwise. Under this specification, coefficient β_2 measures the timeliness of accounting earnings to incorporate the economic performance for non-IFRS reporting firms, and β_6 the incremental IFRS effect to this timeliness. Coefficient β_3 (expected positive) captures the asymmetric timeliness in the incorporation of bad vs. good economic performance, and β_7 (also expected positive under H1a) the incremental effect of IFRS on that asymmetric timeliness. Thus, the sum ($\beta_2 + \beta_6 + \beta_3 + \beta_7$) indicates the incorporation of negative economic performance ("bad news") under IFRS reporting.

Model (1.2) is first estimated using a pooled methodology over the sample period (2001-2008). This allows for a global testing of the IFRS effect within European listed companies (H1a). It is then estimated after several sample breakdowns based on institutional traits, i.e., country of registration and legal origin, allowing a test for H1b and H1c. The CC proxies derived from model (1.2) will also be correlated with metrics of the distance between local GAAP and IFRS developed in the international accounting literature (Bae et al. 2008), to test

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[11] One criticism is that the contemporaneous market does not capture all the information contained in annual accounting earnings. We thus consider, alternatively, annual stock returns with a three-month forward delay with reference to the firm's fiscal year end.

more specifically for H1b. A comparison test on the CC metrics will also offer some insight on the persistence of cross-country differences of CC under IFRS (H1c).

In addition, we control for potential differing effects due to the IFRS adoption timing, by running model (1.2) across different segments according to the type of IFRS adoption, i.e., early (voluntary), on time, or late (mandatory) adoption. Our sample period, which covers financial reports until year 2008, allows for a deeper outlook of IFRS consequences in the post-adoption period. Tests for H2, regarding the role of the Big 4 audit firms in promoting and homogenizing CC in the post-IFRS period (H2a, H2b), are operated by enriching model (1.2) with an auditor dummy (one for Big 4, zero otherwise) that will capture the differential effect associated with the presence of a Big 4 auditor on timeliness metrics:

$$EPS_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} R_{it}$$

$$+ \beta_4 IFRS_{it} + \beta_5 IFRS_{it} D_{it} + \beta_6 IFRS_{it} R_{it} + \beta_7 IFRS_{it} D_{it} R_{it}$$

$$+ \beta_8 B4_{it} + \beta_9 B4_{it} D_{it} + \beta_{10} B4_{it} R_{it} + \beta_{11} B4_{it} D_{it} R_{it}$$

$$+ \beta_{12} B4_{it} IFRS_{it} + \beta_{13} B4_{it} IFRS_{it} D_{it} + \beta_{14} B4_{it} IFRS_{it} R_{it} + \beta_{15} B4_{it} IFRS_{it} D_{it} R_{it} + \varepsilon \quad (1.3)$$

The interpretation of model (1.3) is in spirit similar to that of model (1.2). Coefficients β_{10} and β_{11} capture the marginal effect of Big 4 auditors on good and bad news timeliness when firms report under local GAAP, while coefficients β_{14} and β_{15} indicate this marginal effect under IFRS reporting. If the increase in CC under IFRS is expected to be larger for Big 4-audited companies (H2a), then β_{15} should be positive. According to H2b, which posits that Big 4 auditors act as homogeneity factors in the implementation and enforcement of IFRS, we should observe less variability in the cross-country timeliness metrics derived from model (1.3) among Big 4-audited vs. non-Big 4-audited companies.

4.2 Measures and models of unconditional conservatism

Roychowdhury and Watts (2007) explain that market-to-book ratio (MTB hereafter) ratios are noisy measures of the *overall* level of conservatism, to the extent that MTBs have two distinctive components: (1) the unverifiable (unbooked) increases in value of separable net assets, and (2) the present value of unbooked net assets (rents, growth options, etc.). Following Watts (2003), "true" conservatism" pertains to the first component, only.

In line with Beaver and Ryan (2000), we use the bias component of the firm's MTB as a proxy for UC. Indeed, the *bias* component of the MTB denotes the persistent, news-independent understatement of net assets in accounting, whereas the *lag* component is due to the fact that accounting treatments incorporate economic performance (notably good news) with delay. However, provided Roychowdhury and Watts' analysis, we refine Beaver and Ryan's approach to account for the fact that MTB ratios are also influenced by the firm's growth opportunities (Smith and Watts 1992), and more generally future economic assets which do not relate to conservatism. Therefore, to estimate precisely the bias component of the MTB ratio being attributable to accounting conservatism, one must control for the extent of growth opportunities, a factor ignored in Beaver and Ryan's modeling.

We refer to the literature on the Investment Opportunity Set (IOS) to identify the main, and usable, determinants of the MTB ratio. Previous empirical research has shown that the magnitude of the firm IOS depends on (1) the intangible nature of assets (Kallapur and Trombley 1999; Cazavan-Jeny 2004), (2) past firm growth (Cazavan-Jeny 2004), (3) current and past performance (Beaver and Ryan 2000; Cazavan-Jeny 2004), (4) specific risk and volatility (Chung and Charoenwong 1991; Gaver and Gaver 1993; Cazavan-Jeny 2004), and (5) investment activity (Kallapur and Trombley 1999, 2001).

We thus specify the following model (2) to test our hypotheses regarding IFRS adoption, auditor type and UC:

$$MTB_{it} = \alpha_0 + \alpha_1 IFRS_{it} + \alpha_2 B4_{it} + \alpha_3 IFRS*B4_{it} + \Sigma \delta_k RET_{it-k} + \beta_1 GW_{it} + \beta_2 INTANG_{it} +$$

$$\beta_3 PPE_{it} + \beta_4 \Delta REV_{it} + \beta_5 ROE_{it} + \beta_6 VOL_{it} + \beta_7 CAPEX_{it} + \gamma_j FirmControls +$$

$$\Phi_j InstitutionalControls + \eta \qquad (2)$$

Where (firm and year subscripts omitted) IFRS and B4 as previously defined, and:

- MTB = market-to-book value of common equity at financial year end;
- RET = lagged annual stock returns, with k = 0 to 3;[12]
- GW = goodwill scaled by total assets at year end;
- INTANG = other intangible assets scaled by total assets at year end;
- PPE = net property, plant and equipment scaled by total assets at year end;
- ΔREV = annual change in sales and other revenues;
- ROE = return on common equity;
- VOL = one-year stock price volatility (Worldscope);
- CAPEX = capital expenditures scaled by lagged total assets;
- FirmControls = a set of firm-specific control variables recognized in the literature to be associated with the level of UC, i.e., firm size, leverage, US cross-listing;
- InstitutionalControls = a set of country-specific control variables, i.e., legal origin (French, German, Scandinavian),[13] legal enforcement (anti-director rights, creditor rights), audit litigation risk;
- η = error term.

The interpretation of model (2) is then quite straightforward regarding our hypotheses. H1a will be supported if coefficient α_1 is significantly negative, meaning lower MTB ratios under IFRS after having controlled for other factors affecting the MTB. H1b and H1c will be corroborated depending on the significance of the Φ_j coefficients, associated with institutional country-specific factors. H2a will be corroborated if coefficient α_3 is negative, suggesting a Big 4 enhancing effect in the reduction of UC under IFRS.

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[12] Beaver and Ryan (2000) consider the six lagged annual stock return (k = 0 to 6) to account for the lag (temporary) component of the MTB ratio, i.e., the unexpected economic gains and losses that are recognized in book value over time rather than immediately. We restrain our lag component to the contemporaneous and three lagged stock returns, so as to reduce survivorship bias.

[13] Under this specification, the category of reference is the *common law* environment, represented in this study by the UK and Ireland.

4.3 Sampling procedure and data collection

We request active and inactive listed companies with geographic location in one of the European community countries in the Thomson Worldscope database. This initial query yielded 11,734 firms. We delete companies which are not required to adopt IFRS according to the EC regulation (for varying motives, see the Appendix), as well as the remaining ones which did not switch to IFRS at the end of the period studied (2001-2008), to provide more powerful tests of the mandatory adoption effects. The complete sampling procedure is detailed in the Appendix. The final sample includes 5,464 firms from 22 countries, among which 674 operate in the financial,[14] 237 in the real estate, and 138 in the utilities industry.

Our tests span across eight years, offering a comprehensive equilibrium between the pre-IFRS period (2001-2004 for "regular" mandatory adopters) and the post-IFRS period (2005-2008 for "regular" mandatory adopters). The notion of "regular" mandatory adopter refers to a company being required by EC IAS Regulation 2002/1606 to publish IFRS compliant financial statements as from financial years opened on 1st January 2005. Our sample includes three types of "non-regular" IFRS adopters:[15] 1) 1,038 UK firms listed of the AIM, which are required to adopt IFRS for financial years opened as from 1st January 2007, 2) 43 German firms from the S-DAX index, required to adopt IFRS as from 1st January 2002, and 3) 9 German firms from the NEMAX 2001 or Tec-DAX 2003 indices, required to adopt IFRS no later than in 2001. In each of these cases, the IFRS adoption timing accounts for the fact that the mandated IFRS requirement differs from the "regular" 2005 financial year (or 2006 if financial year does not fit with the civil year).

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[14] Contrary to the vast majority of empirical studies, we do not exclude financial firms *per se*, given that they are also concerned with the question of conservatism. We will, however, control for these "specific" industries in the IFRS switch context, because of the presumed stronger role of fair value valuation associated with financial assets and liabilities.

[15] Country-specific regulations may anticipate or delay the IFRS requirement. For instance, some German companies were required to switch to IFRS quite before 2005, i.e., in 2001 for New Market and high-tech innovative segment of the Deutsche Boërse (Van Tendeloo and Vanstraelen 2005), or in 2002 for small caps S-DAX firms (Maghraoui 2007). Conversely, the AIM-listed UK companies had a two-year delay to adopt IFRS, with a mandated first year of IFRS in 2007.

Due to general concerns of data error in the coding of accounting standards (e.g., Li 2010),[16] we manually check the first year of IAS-IFRS reporting according to the auditor report or to financial statements for all "abnormal" cases. These cases include early IFRS adopters, notably numerous in Germany (Daske et al. 2008; Barth et al. 2008), as well as post-mandatory adopters. This procedure, although costly, is necessary to the reliability of our tests on the one hand, and to appreciate the incremental effects of early IFRS adoption on the other hand.[17] This manual check resulted in the requalification of the first year of IFRS adoption for 185 firms (3.4% of the firms). Table 1 reports a sample breakdown of firms according to their country and IFRS adoption timing.

[Insert Table 1]

Table 1 reveals markedly different patterns in terms of IFRS adoption timing across the EC Member States. As evidenced by prior studies (e.g., Daske et al. 2008), a dominant trend (more than 50% of the firms) in early adoption is observed for Germany[18] and Austria. A propensity to anticipate the use of IFRS also concerns countries that joined the EC more recently, and wished to open their economy to international investors (Hungary and the Czech Republic for Eastern Europe; Estonia and Lithuania for the Baltic area). Conversely, France and the other Mediterranean jurisdictions (Spain, Portugal, Italy, Greece), with 85% of on-time adopters or more, merely seem to "follow the rule", while such an attitude is less marked in the Northern Europe area (Benelux, Denmark, Sweden). Finally, a significant (> 20%) rate of late adoption (post-mandatory) is observed in Ireland, Poland, and Slovakia, suggesting some kind of "IFRS resistance".

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[16] As in Barth et al. (2008), we consider as a source of raw data the item "Accounting Standards Followed" (WS.AcctgStandardsFollowed) in Worldscope: a firm-year is considered as an IAS/IFRS reporting if the item is coded "02 – International standards" or "23 – IFRS".

[17] Daske et al. (2008) report that the capital market benefits (liquidity, firm valuation, cost of equity) of IFRS reporting are substantially greater for voluntary vs. mandatory adopters.

[18] The figures for Germany account for the early mandatory adoption phenomena caused by securities regulations in this country, i.e., the specific case of S-DAX or Tec-Dax companies.

Table 2 reports descriptive statistics at the firm-year level for the main variables considered in the study. It appears that two thirds of the observations involve Big 4 auditors, and about 17% involve other (less brand-named) international auditing networks. The proportion of Big 4 audits is consistent with prior research on audit concentration in Europe.[19] Also, 53.4% of the observations are accounting figures reported under IFRS, in line with the time-balanced period of the study regarding the 2005 "regular" adoption deadline in the EU. Finally, it comes out that 47% of the observations are classified as "bad news", i.e., negative annual stock returns.

[Insert Table 2]

5. Empirical findings

5.1 The consequence of IFRS adoption on conditional conservatism

Main findings

Table 3 reports the estimation results for Model (1.2), either globally (Panel A), and over several sample breakdowns: Financial, Real estate or Utilities (FRU) firms – considered as more exposed to fair value requirements – vs. Non-FRU ones (Panel B), IFRS adoption timing (Panel C), legal origin (Panel D), and auditor type (Panel E).

[Insert Table 3]

β_6 and β_7 are the coefficients of interest to appreciate the contribution of IFRS reporting on earnings timeliness: β_6 captures the incremental effect of IFRS of the timeliness of good news, while β_7 captures the incremental asymmetric timeliness of bad vs. good news under IFRS. Findings are only tabulated with EPS after extraordinary (EPS_AF) as dependent

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[19] According to Ballas and Fafaliou (2008: 491), the Big 4 market share for the 15 EC Members (before the 2004 accession) over the period 2002-2004 reached 70.6% of audit mandates.

variable for clarity. They are qualitatively similar if the commonly used "EPS" (WS item #05201) proxy is considered.[20]

The main outcome from Panel A is that, contrary to expectations (H1a), the asymmetric timeliness of bad vs. good news is lower under IFRS reporting (β_7 negative, $p < 0.01$). In relative magnitude, the IFRS effect is a decrease in bad news timeliness of -19%, accompanied by an increase in good news recognition of +118%; although the later is only marginally significant ($p < 0.10$). Overall, IFRS adoption thus seems to result in more aggressive accounting earnings, possibly through timelier asset recognition and a larger use of fair value valuation methods.

Panel B isolates industries that are strongly exposed to fair value requirements given the nature of their assets and liabilities. The sample is then partitioned between financial, real estate or utilities (FRU hereafter) on the one hand, and non-FRU firms on the other hand. The IFRS effect comes out significant only for the non-FRU subsample, suggesting that the stronger fair value requirement associated with financial assets/liabilities and investment properties[21] is not an explanation *per se* for the more aggressive earnings observed under IFRS. For the other, commonly investigated industrial and services industries (non-FRU), the IFRS effects result in an increase (decrease) in good (bad) news timeliness by 90% (-25%): the change in good news timeliness is, however, not statistically significant.

Panel C segments the analysis according to the timing of IFRS adoption, i.e., early (voluntary) adopters, on-time adopters (for which the first year of IFRS reporting is 31 Dec. 2005 in the "normal" case of EC Regulation 2002/1606), and late (or post-mandatory) adopters. The opponents to regulation claim that imposed accounting standards are likely to have little effects if they do not meet a need or demand expressed by economic entities. Empirical

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[20] With one noticeable difference observed for Panel D: the reduction in bad news timeliness gets significant (at $p < 0.05$) for countries of German legal origin.
[21] Note that IAS 40 does not formally require fair value measurement for investment properties (Raffournier 2007); the revaluation practice remains however common in that industry.

research provides mixed evidence on the benefits of mandatory IFRS adoption. Daske et al. (2008) find that market liquidity and cost of capital benefits mostly pertain to voluntary adopters, but their outlook over mandatory adoption is limited to year 2005. Li (2010) extends the analysis to 2006 and finds that mandatory adopters – who had experienced higher cost of equity capital vs. voluntary adopters before 2005 – could catch up and reduce their cost of capital in the post-mandatory adoption period (2005-2006), suggesting that the effects of regulation are not null *per se*, but not more beneficial than if IFRS had remained adopted on a voluntary basis. In terms of earnings quality (CC), Panel C documents that the effects of IFRS are limited to on-time adopters, i.e., companies that strictly comply and who have switched to IFRS on the year they were mandated. These effects are highly significant for both aspects of earnings timeliness, and are high in magnitude with an increase (a decrease) in good (bad) news timeliness by 247% (-34%). This confirms the negative consequence of the EC regulation of earnings quality.

Panel D offers a geographical and institutional segmentation based on countries' legal origin (La Porta et al. 1998). The English legal origin gathers U.K. and Ireland, and also coincides with the Common Law judicial traits, while French, German and Scandinavian legal origins all pertain to the Civil Law tradition. The law and finance literature argues that investor protection, enforcement mechanisms, and information environment are more developed in Common vs. Code Law countries. Li (2010) finds that these institutional traits condition the benefits of IFRS in terms of cost of capital. In terms of accounting quality, our argumentation is not in line with this; we propose that, because of the strong resemblance between local UK or Irish GAAP and IFRS, the adoption of IFRS produces no significant effects for English legal origin countries (H1b): the evidence presented in Panel D is supportive of that. Furthermore, the larger consequences in terms of earnings aggressiveness relate to Scandinavian countries, followed by French origin ones. Both groups are characterized by

lower earnings timeless to bad news under IFRS, again contrary to H1a. Note that German legal origin countries is the only group which seems to gain in prudence after the IFRS adoption; but this gain is due to a lower good news sensitivity (β_6 negative, p < 0.01) vs. preexisting local GAAP, which is not necessarily an earnings quality trait.

Panel E provides an overview of auditor size (quality) interaction with IFRS adoption. Contrary to expectations (H2a), Big 4 audits seem to favor more aggressive earnings under IFRS, with a simultaneous significant increase (decrease) in good (bad) news timeliness by 1030% (-42%). Interestingly, the less brand-named auditors (non-Big 4) subsample exhibits opposite IFRS effects, i.e., an increase in CC as measured by asymmetric timeliness, but these effects are not significant at conventional levels. Overall, the evidence in Panel E runs contrary to the view that Big 4 auditors exert more conservative professional judgment in an IFRS setting.

By country analysis

To further refine the tests for H1b and H1c, Model 1.2 is replicated for each individual country, for non-FRU firms only. Table 4 reports regression coefficients along with the relative magnitude of IFRS effects on good and bad news timeliness. As well, Graph 1 plots each individual country according to the change in good news and bad news timeliness (ΔGN, ΔBN) on the horizontal and vertical axes, respectively.[22]

[Insert Table 4]

Results for 19 countries provide mixed, unstable evidence about how IFRS affect good news timeliness, with an equivalent number of countries affected positively and negatively as denoted by the sign of coefficient β_6 (although three of the nine positive β_6 are statistically significant, whereas negative β_6 are generally not). Results are much more consensual with

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[22] Czech Republic (CZ) and Spain (ES) are not reported on the graph because of their extreme values for ΔGN.

respect to the change in bad news timeliness, with negative β_7 coefficients for 17 out of 19 countries, including seven statistically significant. IFRS adoption is thus accompanied by lower earnings sensitivity to bad news in most of the EU jurisdictions. Overall, IFRS adoption also characterizes a decrease in asymmetric timeliness metrics (e.g., ΔAT) in the same 17 countries, with Germany standing as a noticeable exception given its lower good news sensitivity post-IFRS.

The IFRS effects differ in magnitude, as illustrated by Graph 1 for the bi-dimensional analysis of good and bad news. Also, the distributions of timeliness metrics reveal important cross-country variability, notably for the change in asymmetric timeliness (ΔAT).[23] As documented by Spearman rank correlations (bottom of Table 4), the magnitude of IFRS effects on bad news timeliness (β_7 or ΔBN) and change in asymmetric timeliness (ΔAT) is negatively associated with the Bae et al. (2008) divergence metric between local GAAP and IFRS (GaapDiff1). Said more directly, the larger the divergence between pre-existing GAAP and IFRS, the stronger the reduction in CC (bad news sensitivity and asymmetric timeliness) associated with IFRS adoption. This finding, although in the opposite direction, is consistent with H1b in terms of magnitude. Furthermore, the weak IFRS effects for U.K. and Ireland (the two "Anglo-Saxon" European countries) is confirmed by statistically insignificant coefficients (β_6 and β_7) in both jurisdictions, where domestic GAAP exhibit the lowest divergence with IFRS (GaapDiff1 = 1).

In a final stage of the country segmented analysis, we try to appraise the harmonization role of IFRS at the level of earnings timeliness properties. Intuitively, if IFRS effectively participate in the accounting harmonization process, we should observe a decrease in the cross-country variability of timeliness metrics following IFRS adoption. Further, if IFRS are insufficient or ineffective *per se* to reach accounting harmonization – due to their flexibility and vagueness,

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[23] Excluding the atypical German case (ΔAT = 1704%), the mean / median effect is -70% / -86%, with a range of [-180%; +99%].

favoring the continuation of local accounting practices (Nobes 2006) –, then the post-IFRS variance in earnings properties should remain non null (H1c). Table 5 reports descriptive statistics and pair-wise comparison tests (local GAAP vs. IFRS) for the good and bad news timeliness metrics.

[Insert Table 5]

Both parametric and non-parametric comparison tests confirm a significant decrease in bad news timeliness under IFRS ($p = 0.038$ and 0.002 for Student and Wilcoxon tests, respectively); the change remains insignificant for good news timeliness. Also, Fisher tests reveal significantly lower variances under IFRS, as compared to the previous local GAAP situation ($p = 0.039$ for good news, and $p < 0.001$ for bad news). Overall, IFRS adoption seems to procure more *homogenous* accounting earnings in terms of timeliness, which resumes being positive for the purpose of international accounting harmonization. Also consistent with this, Kolmogorov-Smirnov tests confirm the view that IFRS lead to uniform distribution of timeliness metrics across countries. Indeed, the null hypothesis of uniformity is no longer rejected under IFRS ($p = 0.148$ or 0.208 for good and bad news, respectively), contrary to what can be observed under local GAAP. But beyond uniformity, chi-square tests for constant (mean invariant) timeliness distributions strongly reject the null hypothesis of strict homogeneity.

The interaction of auditor type and IFRS regarding conditional conservatism

Table 6 reports the estimation results for Model (1.3) which interacts auditor type (Big 4 vs. non-Big 4) with earnings timeliness metrics. As in Table 3, the layout is either global (Panel A), and specific to sample breakdowns: FRU vs. non-FRU firms (Panel B), IFRS adoption timing (Panel C), and legal origin (Panel D).

[Insert Table 6]

β_{10}, β_{11}, β_{14} and β_{15} capture the differential effects of Big 4 auditors, as benchmarked with non-Big 4, on earnings timeliness: β_{10} (β_{11}) captures the incremental effect of Big 4 audits on the timeliness of good (bad) news under local GAAP regimes, while β_{14} (β_{15}) captures the same asymmetric timeliness after IFRS adoption.

Sample-wide main findings (Panel A) are that Big 4 auditors were effective promoters of CC under local GAAP, due to lower earnings sensitivity to good news (β_{10} = -0.024, p < 0.10) and higher earnings sensitivity to bad news (β_{11} = 0.098, p < 0.001). However, this effect more than reverses under IFRS (β_{14} = 0.048, p < 0.05; β_{15} = -0.161, p < 0.001). The Big 4 effect in the pre-IFRS period is consistent with the US literature, which documents a more conservative behavior of the large audit firms to prevent litigation risk (Nelson et al. 2002; Basu et al. 2001, 2002), or to preserve their reputation capital by enhancing earnings quality (Francis and Wang 2008). The Big 4 effect in the post-IFRS period is more surprising, and suggests that Big 4 auditors use the IFRS regime to promote more aggressive reporting practices by simultaneously increasing / reducing earnings sensitivity to good / bad news, and thus CC. The magnitude of the Big 4 effect on "prudence" — defined as bad news minus good news timeliness — can be estimated at 0.121 / -0.087 under local GAAP / IFRS. Overall, this outcome is in strict contradiction with arguments developed for H2a.

Panel B shows that these main findings concern non-FRU firms and Panel C that they are restricted to timely IFRS adopters. Panel D documents varying Big 4 effects according to legal origin, but inconsistent with the litigation costs hypothesis at first sight. Indeed, only the French code law countries posts a significant differentiation of Big 4 audits in terms of prudence, i.e., both a lower (higher) earnings timeliness to good (bad) news under local GAAP. This differentiation is then neutralized under IFRS, with a global Big 4 effect on prudence passing from 0.279 under local GAAP to -0.017 under international standards. We observe no significant Big 4 differentiation under local GAAP for common law countries

(Ireland and UK), and a significant move to more aggressive earnings under IFRS ($\beta_{14} =$ 0.084, p < 0.10; $\beta_{15} = -0.186$, p < 0.01). Big 4 effects remain stable and insignificant in the Scandinavian context, and the only significant differentiation in the German one is higher good news timeliness, before IFRS only.

To shed more light on the relation between Big 4 behavior in terms of CC and institutional characteristics, Table 7 reports the parameters of interest drawn from Model (1.3) estimated at the country level. Statistical significance is indicated in red bold for coefficients capturing the marginal Big 4 effect.

[Insert Table 7]

The last two columns of Table 7 indicate the Big 4 effect on the overall "prudence" in earnings, as defined by bad news minus good news timeliness, under local GAAP and under IFRS. In terms of direction, the Big 4 effect under local standards is somewhat mixed: of the 16 countries for which Model (1.3) could be estimated, we count five decreases and 11 increases in prudence. The Big 4 effect is more marked toward a decrease in prudence under IFRS, for 12 out of 16 countries. This effect is mostly attributable to the fact that Big 4 auditors are associated with a decrease in earnings sensitivity to bad news, as evidenced by the 12 negative β_{15} coefficients, of which seven are statistically significant at p < 0.10 or better.

To provide further insight into the validity of the litigation cost hypothesis driving auditor behavior (Francis and Wang 2008), we correlate the timeliness metrics with three country-specific judicial traits used in the law and finance literature: 1) the revised anti-director rights (Djankov et al. 2008), viewed as an improved version of the La Porta et al. (1998) AD right index and proxying for investor protection, 2) the creditor rights index used in Djankov et al. (2007), which is virtually similar to the one developed by La Porta et al. (1998), and 3) the auditor litigation index used in Wingate (1997). Spearman rank correlations document

significant negative associations between anti-director rights and good news timeliness metrics at two levels: a) under local GAAP when a Big 4 auditor is in charge (i.e., for β_{10} and Loc_GN_B4), and b) under IFRS when a non-Big 4 is in charge (i.e., for β_6 and IFR_GN_NB4). However, good and bad news timeliness are no longer related to investor protection since the switch to IFRS when Big 4 auditors are present. In brief, it seems that IFRS adoption has swept away audit differentiation incentives found in the law and finance literature regarding the protection of minority shareholders; possibly that the Big 4 would then feel less exposed to litigation threats considering IFRS as a safe harbor for more aggressive reporting. Regarding creditor protection, timeliness metrics come out uncorrelated, whatever the accounting regime and the presence, or not, of a Big 4 auditor. Our findings here do not support the cross-country findings from Ball et al. (2008), in relation to the development of debt markets as a determinant of conditional conservatism.

Finally, audit litigation risk is negatively associated with good news timeliness under local GAAP – although this association is marginally significant only for non-Big 4 audits – and under IFRS for both auditor types. This relation, if consistent with the one about investor protection under local GAAP, is also in line with the *deep pocket* perspective under IFRS, which posits that Big 4 auditors are more conservative in order to mitigate their litigation exposure. Overall, however, our observations are only partial on that point, to the extent that bad news asymmetric timeliness is unrelated to investor or creditor protection, as well as to auditor litigation risk, whatever the auditor size and the accounting regime.

In Table 8, we test for the hypothesis that the Big 4, because of their international approach, contribute to the accounting harmonization effort since IFRS are in use (H2b). In that purpose, we run non-Big 4 vs. Big 4 comparisons for the cross-country timeliness metrics, under local GAAP regime and IFRS separately.

[Insert Table 8]

First, mean and median comparisons highlight the drastic change in pattern between local GAAP and IFRS reporting regarding bad news timeliness. Indeed, bad news timeliness is higher under local GAAP for Big 4 vs. non-Big 4 audits (although not statistically speaking, p = 0.12), and gets significantly lower under IFRS (p = 0.004). Second, the cross-country variability of timeliness metrics is systematically inferior among Big 4 audits, whatever the reporting regime, but that difference is significant only for good news timeliness. For that property, one can conclude that Big 4 auditors contribute to accounting homogeneity and that this contribution has slightly increased in magnitude since the IFRS adoption, although one cannot draw the same conclusion for bad news timeliness. Hypothesis H2b is thus not fully supported.

5.2 The consequence of IFRS adoption on unconditional conservatism

Empirical findings regarding IFRS, Big 4, and unconditional conservatism (UC) (Model 2) are tabulated in Tables 9 and 10. Table 9 reports the main findings obtained from full sample regressions based on two declinations: Model 2.1 considers institutional traits through country dummies, Model 2.2 replaces country dummies by legal origin dummies, as well as investor protection and auditor litigation indices. All regressions are controlled for time and industry fixed effects,[24] and standard errors are adjusted for clustering effects on firms.

[Insert Table 9]

Regressions from Table 9 provide evidence of a negative association between IFRS reporting and MTB ratios, although that association is not statistically significant at conventional levels (p < 0.10 one-tailed). It suggests lower MTB ratios under IFRS when a non-Big 4 auditor is in charge, after having controlled for firm-specific incentives (lag MTB component, growth

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[24] Time period fixed effects (2001-2008) are captured with seven year dummies; industry fixed effects are controlled with 18 industry membership dummies according to the DJ EuroStoxx classification.

opportunities, and other contracting characteristics)[25] and for macro-economic traits. In our

setting, this can be read as evidence of less UC, which is consistent with higher marginally

significant levels of CC observed at similar levels (see coefficient β_7 from Model 1.3,

Table 6).

However, despite of this weak effect being in line with H1a, Model 2 provide statistical

evidence of higher levels of UC for Big 4 audits, also amplified by IFRS adoption (e.g., the

positive and significant coefficients for variables B4 and IFRS*B4). The Big 4 effect under

local GAAP is slightly attenuated by the inclusion of institutional traits (Model 2.2) and

specifically minority shareholders protection (AD_rights), suggesting a substitutive

relationship between both enforcement mechanisms. Overall, these findings are in

contradiction with expectations (H1a), but consistent, however, with observations made

previously that CC has decreased under IFRS for Big 4 audits. They reflect the preemptive

role of UC on CC modeled in the literature, i.e., the view that more UC reduces possibilities

for accountants to use conditional, news-dependant conservatism.

[Insert Table 10]

Table 10 provides estimates of Model 2 after several sample breakdowns, i.e., financial vs.

non-financial firms, IFRS adoption timing, and legal origin. It provides evidence that the main

findings previously described are contingent to non-FRU firms and to timely IFRS adopters,

which is similar to what has been observed for CC models. Strong variation also exists across

legal origins: while the results generally prove insignificant for German and Scandinavian

legal origin clusters, they post differing profiles in the English and French legal environments.

In the English common law setting, the Big 4 effect in favor of more UC comes out after the

IFRS adoption, whereas it is not contingent to the use of IFRS in the French code law setting.

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[25] Note that the contemporaneous and past stock returns seem to play a significant role in capturing the *lag* component of the MTB ratio, i.e., its ability to integrate the firm's economic performance with a lag. Also, Model 2 shows that the importance of goodwill (GW) is not supportive of growth opportunities, whereas the weight of other intangible assets (INTANG), and the investment effort (CAPEX) are.

The English pattern could be interpreted by an excessively conservative attitude of the large audit firms in prevention of their higher legal exposure surrounding the accounting change. The French findings contend that the Big 4 drive higher levels of UC under local GAAP, and that the IFRS adoption did not change that differentiation pattern. Here, the legal exposure explanation is less likely to hold, due to the lower effectiveness of enforcement mechanisms and to the lower audit litigation risk that prevail in these countries. Such a Big 4 differentiation in French legal origin countries in hardly interpretable, and in contradiction with the earnings management literature (e.g., Piot and Janin 2007 in France).

6. Synthesis and implications

This research examines the consequences of IFRS adoption on accounting conservatism, a fundamental component of accounting quality, within the European Union. Prior studies have mostly addressed the effects of IFRS in voluntary adoption settings; they tend to conclude that IFRS adoption has improved earnings quality (e.g., Barth et al. 2008). However, these studies suffer from a potential selection bias due to the difficulty to control for differing reporting incentives of companying switching voluntarily to IFRS. Investigating the EU context of mandated IFRS adoption as from 2005 offers an unprecedented opportunity to appraise IFRS consequences at a large level, while limiting the selection bias induced by reporting incentives.

In contrast with voluntary adoption settings, empirical research on the economic consequences of mandatory IFRS adoption, although still in its infancy, generally fails to document improvements in accounting quality (see Brüggemann et al. 2010 for a review). That research stream also provides weak and inconclusive evidence of direct economic benefits such as a reduction in the cost of equity capital (Daske et al. 2008; Brüggemann et al. 2010). Relying on the view that IFRS are likely to result in more economically relevant pictures of companies, as compared to the pre-existing local GAAP in most EU "continental"

countries, we anticipate a decrease in unconditional (excessive or news-independent) conservatism and a correlative increase in conditional (news-dependent) conservatism following IFRS adoption. We also contend that Big 4 auditors are likely a) to enhance this trend due to their "Anglo-Saxon" view of accounting quality; and b) to homogenize the cross-country variability in accounting earnings properties under the principles-based IFRS setting.

We use an extensive database including more than 5,000 IFRS adopters from 22 EU countries over the period 2001-2008, i.e., four year preceding and following the 2005 IAS Regulation deadline. Using the Basu (1997) earnings timeliness approach to measure conditional conservatism (CC), and the bias component of the market-to-book ratio to proxy for unconditional conservatism (UC), our findings run counter to these expectations. First, we find that CC has *decreased* under IFRS as proxied by the asymmetric timeliness of good vs. bad news. Segmented analyses reveal that this effect concerns industrial or commercial entities (i.e., non-financial, -real estate, or -utilities companies), timely IFRS adopters (i.e., neither early voluntary nor late mandatory), and Big 4 audits. Second, cross-country analyses show that the magnitude of the IFRS effect is positively associated with the distance between IFRS and the pre-existing local GAAP; and that the IFRS era made the distribution of timeliness metrics more uniform, although homogeneity is not achieved. Third, more specifically, Big 4 auditors are associated with more aggressive earnings under IFRS, with simultaneous increase (decrease) in good (bad) news timeliness. Curiously, the Big 4 attitude regarding good news timeliness was associated with country-specific institutional traits (e.g., anti-director rights, auditor litigation risk) under local GAAP, but is no longer related to such factors under IFRS reporting. Fourth, the cross-country variability in timeliness metrics is significantly lower among Big 4 vs. non-Big 4 audits, whatever the reporting regime (local GAAP or IFRS). Fifth, finally, we find higher levels of UC for Big 4 audits, also amplified by IFRS adoption. This ultimate point is again in contradiction with expectations, but consistent,

however, with findings about CC regarding the preemptive (substitutive) role of UC over CC modeled in the literature.

To the extent that conditional conservatism is economically relevant in reducing contracting costs or information asymmetries, and thus associated with earnings quality, our findings tend to demonstrate that the EU-wide mandatory IFRS adoption has hampered accounting quality. In other words, generalizing the use of IFRS under the *one size fits all* principle appears to be counterproductive for listed entities, notwithstanding the costs of such an "accounting revolution".

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Table 1: Sample firm breakdown according to country and IFRS adoption timing

Country	IFRS adoption timing in years						Early	On-time	Late	Fina-ncial	Real Esta.	Utili-ties
	N	Mean	Med.	S. D.	Min	Max	%	%	%	N	N	N
AT: Austria	88	-2.6	-3	1.8	-5	2	77.3	19.3	3.4	18	7	3
BE: Belgium	132	-0.4	0	1.1	-4	3	31.1	62.1	6.8	24	9	7
CZ: Czech R.	31	-1.2	0	1.8	-4	3	48.4	48.4	3.2	4		13
DE: Germany	616	-1.5	-1	2.2	-7	3	51.1	37.3	11.5	91	28	16
DK: Denmark	158	-0.1	0	1.2	-4	3	13.3	75.3	11.4	38	8	1
EE: Estonia	9	-3.1	-4	1.2	-4	-1	100.0					1
ES: Spain	151	0.0	0	0.5	-1	2	5.3	87.4	7.3	23	17	11
FI: Finland	141	-0.2	0	0.6	-4	2	11.3	87.2	1.4	12	4	2
FR: France	583	0.0	0	0.5	-3	3	3.8	91.4	4.8	63	37	9
GB: United K.	1 847	-0.3	0	1.0	-6	3	21.5	71.4	7.1	190	69	30
GR: Greece	305	-0.1	0	0.5	-4	2	5.2	92.8	2.0	32	2	6
HU: Hungary	33	-1.8	-1	2.2	-4	1	51.5	33.3	15.2	4	2	3
IE: Ireland	72	0.2	0	1.2	-3	2	16.7	59.7	23.6	8	1	1
IT: Italy	314	0.0	0	0.6	-4	3	6.7	85.4	8.0	55	14	22
LT: Lithuania	5	-1.4	-1	2.6	-4	2	60.0	20.0	20.0	1		
LU: Luxemburg	40	-0.6	0	1.8	-4	2	32.5	50.0	17.5	16	3	2
NL: Netherland	152	-0.5	0	1.3	-5	3	21.1	73.7	5.3	16	15	
PL: Poland	299	0.3	0	1.3	-4	3	15.4	55.9	28.8	35	4	7
PT: Portugal	53	-0.2	0	0.7	-4	1	13.2	84.9	1.9	6	1	2
SE: Sweden	406	0.1	0	0.9	-4	3	7.6	78.3	14.0	35	16	2
SI: Slovenia	11	-0.7	0	1.4	-4	0	27.3	72.7				
SK: Slovakia	18	-0.3	0	2.0	-4	3	33.3	27.8	38.9	3		
Total	**5 464**	**-0.3**	**0**	**1.3**	**-7**	**3**	**20.5**	**70.5**	**9.0**	**674**	**237**	**138**

The full sample comprises N = 5 464 IFRS adopters, across 22 EU countries.

IFRS adoption timing in years = first year of effective IFRS reporting, minus the year of mandated IFRS adoption (i.e., financial year 2005 in the "regular" situation, for companies with fiscal year end on 31st December).

IFRS adoption timing (by categories, in %): *early (voluntary) adopters* if IFRS adoption timing in years is strictly inferior to zero, *late (post-mandatory) adopters* if IFRS adoption timing in years is strictly superior to zero, *on-time adopters* if the IFRS adoption timing in years is zero.

Industry membership for three specific industries: banking, insurance and other financial services (Financial), Real Estate, and Utilities.

Table 2: Descriptive statistics at the firm-year level

	N	Mean	Median	Std. Dev.	Min	Max
Test variables						
IFRS	27 600	0.534	1	0.499	0	1
B4	27 600	0.660	1	0.474	0	1
MAJOR	27 600	0.167	0	0.373	0	1
Variables used in Conditional Conservatism models						
EPS	27 600	0.020	0.051	0.168	-1.227	0.643
EPS_AF	27 600	0.021	0.051	0.171	-1.284	1.505
R	27 600	0.062	0.032	0.501	-0.873	2.551
R_3M	27 600	0.070	0.006	0.614	-0.983	26.452
D1	27 600	0.471	0	0.499	0	1
D1_3M	27 600	0.493	0	0.500	0	1
Variables used in the Unconditional Conservatism model						
MTB	27 600	2.301	1.613	2.311	0.246	22.163
GW	23 308	0.113	0.040	0.158	0.000	0.993
INTANG	27 415	0.142	0.055	0.188	0.000	0.995
PPE	27 401	0.252	0.176	0.248	0.000	0.999
ΔREV (a)	26 970	0.234	0.076	0.910	-0.912	7.984
ROE (a)	27 583	-0.019	0.082	0.531	-5.040	2.804
VOL	21 644	31.802	29.600	12.697	0.000	83.811
CAPEX (a)	26 406	0.057	0.032	0.087	0.000	0.701
LT_DEBT	27 492	0.131	0.083	0.148	0.000	0.936
TOT_DEBT	27 518	0.217	0.194	0.185	0.000	0.984
US_LIST	27 600	0.002	0	0.046	0	1
ASSETS (M€)	27 597	8 534.797	164.871	68 891.88	0.008	2 641 050

(a) Variable distribution as been winsorized at the 1st – 99th percentiles to avoid the problem of outliers.

Tests variables: IFRS = 1 if the firm reports under IFRS, and 0 otherwise; B4 = 1 if the firm is audited by one of the Big 4 auditors (Ernst & Young, KPMG, PricewaterhouseCoopers, or Deloitte & Touche), and 0 otherwise; MAJOR = 1 if the firm is audited by one of the Major (non-big 4) international audit networks (Mazars, Grant Thornton, BDO Binder / BDO International, Baker Tilly International, Pannell Kerr Forster / PKF International, Horwath International, HLB International, BKR International, Moore Stephens International, Nexia International, Moores Rowland International, RSM International, Jeffreys Henry International, CPA Associates), and 0 otherwise. The B4 and MAJOR auditor variables are coded based on information hand-collected in the annual report, or on the Reuters Factiva on-line database which discloses auditor name on an annual basis.

Variables used in Conditional Conservatism models: EPS = earning per share (WS item #05201); EPS_AF = EPS after extraordinary items (WS item #18209); R = contemporaneous buy-and-hold fiscal year stock return, including dividend paid and adjusted for stock dividends and capital contributions (Datastream); R_3M = one-year stock return delayed three months ahead of fiscal year end (Datastream); D1 = 1 if R is negative, and 0 otherwise.

Variables used in the Unconditional Conservatism models: MTB = market-to-book value of common equity based on the closing stock price at financial year end; GW = goodwill scaled by total assets at year end; INTANG = other intangible assets scaled by total assets at year end; PPE = net property, plant and equipment scaled by total assets at year end; ΔREV = annual change in sales and other revenues; ROE = return on common equity; VOL = one-year stock price volatility; CAPEX = capital expenditures scaled by lagged total assets; LT_DEBT = Long-term debt scaled by total assets at year end; TOT_DEBT = Long-term debt plus short-term debt and current portion of long-term debt scaled by total assets at year end; MULTI_US = 1 if the firm is cross-listed on a US stock market (NYSE, NASDAQ), and 0 otherwise; ASSETS = total assets (in mil. €) at fiscal year end.

Table 3: Results for model (1.2)

EPS $AF_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} R_{it} + \beta_4 IFRS_{it} + \beta_5 IFRS_{it} D_{it} + \beta_6 IFRS_{it} R_{it} + \beta_7 IFRS_{it} D_{it} R_{it} + \varepsilon$

	β_1	β_2	β_3	β_4	β_5	β_6	β_7	β_0	N	F-stat	R2	# Firm	ΔGN	ΔBN
Panel A: Global unsegmented analysis														
	-0.031	0.014	0.211	0.009	0.017	0.016	-0.059	0.053	27 600	349.7	11.9%	5 075	118%	-19%
	-5.86[a]	2.02[c]	14.75[a]	2.40[c]	2.65[b]	1.82[d]	-3.35[b]	17.50[a]						
Panel B: By industry (non-Financial, Real estate or Utilities -FRU- vs. Others)														
Non-FRU	-0.026	0.015	0.205	0.009	0.014	0.013	-0.069	0.044	22 153	266.3	10.7%	4 101	90%	-25%
	-4.49[a]	1.90[d]	13.54[a]	1.89[d]	1.98[c]	1.31	-3.68[a]	12.07[a]						
FRU	-0.033	0.038	0.202	0.012	0.028	0.028	-0.001	0.071	5 447	78.7	17.4%	974	75%	11%
	-2.55[c]	2.99[b]	4.48[a]	2.04[c]	1.92[d]	1.78[d]	-0.02	16.25[a]						
Panel C: By IFRS adoption timing (early, on-time, late), non-FRU firms														
Early	-0.009	0.011	0.256	0.024	-0.011	-0.014	-0.054	0.023	3 425	41.6	9.9%	813	-125%	-25%
	-0.31	0.32	3.84[a]	1.19	-0.36	-0.36	-0.76	1.29						
On-time	-0.027	0.012	0.207	0.006	0.017	0.030	-0.104	0.048	17 824	221.4	11.3%	3 017	247%	-34%
	-4.47[a]	1.46	12.96[a]	1.38	2.33[c]	2.89[b]	-5.31[a]	12.35[a]						
Late	-0.035	0.055	0.080	0.035	0.041	-0.002	0.032	0.001	904	12.4	9.6%	271	-3%	23%
	-1.17	2.30[c]	1.14	1.24	1.01	-0.04	0.38	0.08						
Panel D: By legal origin, non-FRU firms														
English	-0.037	-0.005	0.219	0.030	0.022	-0.010	0.011	0.038	7 003	113.9	11.7%	1 450	-383%	1%
	-4.08[a]	-0.46	9.11[a]	3.51[a]	1.74[d]	-0.49	0.33	6.21[a]						
French	-0.020	0.028	0.138	-0.004	0.008	0.023	-0.082	0.050	8 123	92.5	8.9%	1 308	81%	-35%
	-2.24[c]	2.04[c]	5.83[a]	-0.60	0.74	1.45	-2.94[b]	9.14[a]						
German	-0.007	0.075	0.245	0.010	-0.004	-0.057	-0.090	0.038	3 797	42.3	9.9%	785	-76%	-46%
	-0.32	4.42[a]	3.67[a]	0.74	-0.16	-2.62[b]	-1.27	3.05[b]						
Scandinavian	-0.034	0.017	0.284	0.004	0.021	0.037	-0.169	0.049	3 230	51.1	16.4%	558	222%	-44%
	-2.24[c]	0.83	7.35[a]	0.34	1.19	1.61	-3.65[a]	4.60[a]						
Panel E: By auditor category, non-FRU firms														
non-Big 4	-0.034	0.033	0.134	0.014	0.027	-0.018	0.038	0.028	8 117	95.3	9.9%	1 818	-56%	12%
	-3.36[b]	3.12[b]	5.56[a]	1.61	2.15[c]	-1.09	1.23	4.61[a]						
Big 4	-0.020	0.003	0.249	0.004	0.007	0.035	-0.141	0.053	14 136	167.4	11.0%	2 540	1 030%	-42%
	-2.85[b]	0.32	12.74[a]	0.75	0.83	2.78[b]	-5.96[a]	11.31[a]						

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Reported items are regression coefficients, with associated *t*-statistic below. T-statistics are based on standard errors adjusted for cluster analysis (each firm represents one cluster), and estimated under the heteroscedasticity consistent White method.

a, b, c, d denotes two-tailed significance at *p* inferior to 0.001, 0.01, 0.05, and 0.10, respectively.

Δ GN = change in good news (GN) timeliness, calculated as β_6 / abs(β_2); Δ BN = change in bad news (BN) timeliness, calculated as ($\beta_6 + \beta_7$) / abs($\beta_2 + \beta_3$), all expressed in percentage.

Table 4: Results for model (1.2) by country

EPS $AF_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} R_{it} + \beta_4 IFRS_{it} + \beta_5 IFRS_{it} D_{it} + \beta_6 IFRS_{it} R_{it} + \beta_7 IFRS_{it} D_{it} R_{it} + \varepsilon$
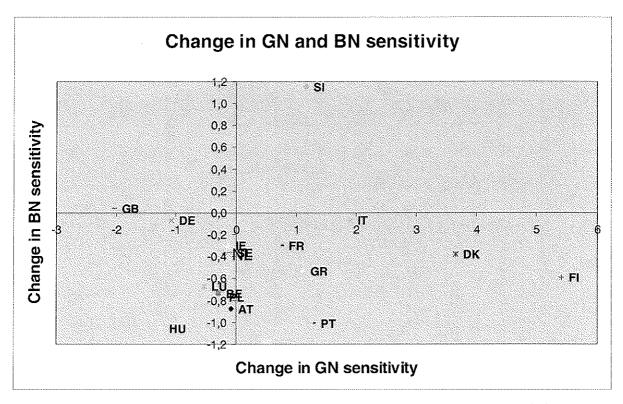
	β_1	β_2	β_3	β_4	β_5	β_6	β_7	β_0	Δ GN	Δ BN	AT local	AT IFRS	Δ AT	Gaap Diff1
AT	0.009	0.053	0.588	-0.033	-0.062	-0.005	-0.555	0.094	-0.1	-0.9	11.1	0.7	-0.94	12
BE	0.022	0.124	0.290	0.031	-0.052	-0.035	-0.270	0.038	-0.3	-0.7	2.3	0.2	-0.90	13
CZ (N=50)	0.220	-0.006	0.758	-0.078	-0.200	0.176	-0.848	0.102	30.8	-0.9	132.7	-0.5	-1.00	14
DE	-0.009	0.073	0.208	0.016	0.008	-0.079	0.059	0.031	-1.1	-0.1	2.8	51.2	17.04	11
DK	-0.054	0.015	0.212	-0.035	0.046	0.055	-0.140	0.081	3.6	-0.4	14.2	1.0	-0.93	11
ES	0.000	-0.003	0.148	-0.041	0.019	0.079	-0.112	0.078	29.1	-0.2	54.4	0.5	-0.99	16
FI	-0.043	0.019	0.230	-0.032	0.032	0.101	-0.247	0.072	5.4	-0.6	12.3	-0.1	-1.01	15
FR	-0.014	0.017	0.193	0.006	0.008	0.013	-0.075	0.055	0.8	-0.3	11.0	3.8	-0.65	12
GB	-0.038	-0.005	0.218	0.030	0.025	-0.010	0.019	0.038	-2.0	0.0	44.3	15.8	-0.64	1
GR	0.000	0.033	0.060	-0.018	-0.024	0.036	-0.085	0.040	1.1	-0.5	1.8	-0.4	-1.20	17
HU	0.195	0.433	0.391	0.199	-0.314	-0.535	-0.331	-0.095	-1.2	-1.1	0.9	0.6	-0.35	13
IE	-0.007	-0.015	0.174	0.019	-0.032	-0.002	-0.045	0.050	-0.1	-0.3	11.9	7.8	-0.35	1
IT	-0.062	0.022	0.080	-0.001	0.060	0.042	-0.048	0.024	1.9	-0.1	3.6	0.5	-0.86	12
LU (N=72)	0.197	0.139	0.194	0.011	-0.192	-0.074	-0.149	0.026	-0.5	-0.7	1.4	0.7	-0.50	18
NL	0.002	0.028	0.292	0.000	0.001	-0.005	-0.115	0.066	-0.2	-0.4	10.4	7.8	-0.25	4
PL	-0.016	0.077	0.324	0.005	0.023	-0.019	-0.289	0.040	-0.2	-0.8	4.2	0.6	-0.86	12
PT	-0.073	0.048	0.060	-0.020	0.037	0.061	-0.171	0.031	1.3	-1.0	1.3	-1.0	-1.80	13
SE	-0.020	0.028	0.281	0.043	0.004	-0.003	-0.110	0.016	-0.1	-0.4	9.9	6.8	-0.31	10
SI (N=57)	-0.041	0.047	-0.615	-0.032	0.073	0.054	0.603	0.072	1.2	1.2	-13.2	-0.1	0.99	9
GaapDiff1						0.205	-0.526		0.322	-0.536	-0.138	-0.680	-0.655	
Rho						(0.400)	(0.021)		(0.179)	(0.018)	(0.574)	(0.001)	(0.002)	

The model could not be estimated for three countries with less than 50 observations: Estonia (EE), Lithuania (LT), and Slovakia (SK). The number of firm-year observations is indicated only if inferior to 100. Significantly non-null β_6 or β_7 coefficients ($p < 0.10$ or better) are reported in bold characters.

Δ GN = change in good news (GN) timeliness, calculated as β_6 / abs(β_2); Δ BN = change in bad news (BN) timeliness, calculated as ($\beta_6 + \beta_7$) / abs($\beta_2 + \beta_3$).

AT local = asymmetric timeliness of bad news relative to that of good news under local GAAP: β_3 / abs(β_2); AT IFRS = asymmetric timeliness of bad news relative to that of good news under IFRS: ($\beta_3 + \beta_7$) / abs($\beta_2 + \beta_6$). Δ AT = relative change in AT: (AT IFRS − AT local) / abs(AT local).

GaapDiff1 = number of differences observed between IAS-IFRS and local GAAP across 21 items (theoretical range [0-21]), as defined in Bae et al. (2008).

GaapDiff1 Rho = Spearman rank correlation between GaapDiff1 and the metrics of IFRS effects (p-values in parentheses).

Graph 1: Country plots according to the IFRS effects on good news / bad news sensitivity

Note: Czech Republic and Spain are voluntarily not plotted on this graph due to their extreme values for changes in good news sensitivity (30.77 and 29.08, respectively).

Table 5: Local GAAP vs. IFRS comparison for timeliness metrics

	Good news timeliness			Bad news timeliness		
	Local	IFRS	p-value	Local	IFRS	p-value
Mean	0.059	0.052	0.810	0.274	0.113	0.038
Median	0.028	0.064	0.494	0.249	0.109	0.002
Std dev.	0.097	0.059	0.039	0.286	0.071	0.000
Min	-0.015	-0.102		-0.569	-0.042	
Max	0.433	0.170		0.824	0.262	
Uniformity	2.780	1.140		1.84	1.063	
K-S test	(<0.0001)	(0.148)		(0.002)	(0.208)	
Chi-2	3.002	1.268		5.646	0.845	
p-value	1.000	1.000		0.997	1.000	

Good news timeliness equals to β_2 ($\beta_2 + \beta_6$) under the local GAAP (IFRS) regime. Bad news timeliness equals to $\beta_2 + \beta_3$ ($\beta_2 + \beta_3 + \beta_6 + \beta_7$) under the local GAAP (IFRS) regime.

Comparison tests are based on pair-wise analyses; reported two-tailed p-values correspond to Student t-test for means, Wilcoxon rank z-test for medians, and Fisher f-test for variances.

Period specifics tests are based on the Chi-2 distance assuming a mean invariant distribution of timeliness metrics (H0: observed distribution is independent from invariant mean distribution).

Table 6: Results for model (1.3)

$$EPS\_AF_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it}R_{it} + \beta_4 IFRS_{it} + \beta_5 IFRS_{it}D_{it} + \beta_6 IFRS_{it}R_{it} + \beta_7 IFRS_{it}D_{it}R_{it} + \beta_8 B4_{it} + \beta_9 B4_{it}D_{it} + \beta_{10}B4_{it}R_{it} + \beta_{11}B4_{it}D_{it}R_{it} + \beta_{12}B4_{it}IFRS_{it} + \beta_{13}B4_{it}IFRS_{it}D_{it} + \beta_{14}B4_{it}IFRS_{it}R_{it} + \beta_{15}B4_{it}IFRS_{it}D_{it}R_{it} + \varepsilon$$

	β_1	β_2	β_3	β_4	β_5	β_6	β_7	β_8	β_9	β_{10}	β_{11}	β_{12}	β_{13}	β_{14}	β_{15}	β_0	# Obs / # Firm	F-stat	R2	Big 4 effect Local	Big 4 effect IFRS
Panel A: Global unsegmented analysis																					
	-0.038	0.029	0.147	0.018	0.026	-0.013	0.041	0.028	0.014	-0.024	0.098	-0.015	-0.014	0.048	-0.161	0.034	27 600 / 5 075	170.6	12.4%	0.121	-0.087
	-4.00[a]	2.97[b]	6.32[a]	2.44[c]	2.20[c]	-0.83	1.40	4.37[a]	1.21	-1.77[d]	3.30[a]	-1.71[d]	-1.00	2.54[c]	-4.38[a]	6.47[a]					
Panel B: By industry (non-Financial, Real estate or Utilities -FRU- vs. Others)																					
Non-FRU	-0.034	0.033	0.134	0.014	0.027	-0.018	0.038	0.025	0.015	-0.029	0.115	-0.009	-0.020	0.053	-0.179	0.028	22 153 / 4 101	130.7	11.2%	0.144	-0.088
	-3.36[a]	3.12[b]	5.56[a]	1.61	2.16[c]	-1.09	1.23	3.33[a]	1.21	-1.98[c]	3.70[a]	-0.95	-1.35	2.53[c]	-4.60[a]	4.61[a]					
FRU	-0.043	0.019	0.258	0.037	0.029	0.034	0.039	0.021	0.012	0.028	-0.099	-0.032	0.001	-0.010	-0.033	0.055	5 447 / 974	38.7	18.4%	-0.127	-0.151
	-1.45	0.66	2.84[a]	2.67[b]	0.85	1.00	0.38	1.88[d]	0.36	0.91	-0.95	-2.10[c]	0.02	-0.25	-0.28	5.37[a]					
Panel C: By IFRS adoption timing (early, on-time, late), non-FRU firms																					
Early	-0.017	0.029	0.252	0.011	0.017	-0.041	0.006	0.007	0.010	-0.036	-0.006	0.016	-0.041	0.054	-0.097	0.020	3 425 / 813	20.9	10.5%	0.030	-0.121
	-0.37	0.60	2.66[b]	0.38	0.35	-0.71	0.06	0.20	0.18	-0.50	-0.04	0.39	-0.66	0.67	-0.67	0.73					
On-time	-0.036	0.030	0.128	0.014	0.027	-0.005	0.015	0.025	0.016	-0.028	0.127	-0.012	-0.015	0.056	-0.194	0.031	17 824 / 3 017	109.1	11.8%	0.155	-0.096
	-3.40[a]	2.61[b]	4.98[a]	1.54	1.99[c]	-0.30	0.44	3.08[b]	1.28	-1.76[d]	3.85[a]	-1.20	-0.97	2.63[b]	-4.73[a]	4.87[a]					
Late	-0.046	0.067	0.038	0.039	0.051	0.012	-0.003	0.029	0.021	-0.025	0.074	-0.002	-0.023	-0.034	0.083	-0.015	904 / 271	7.2	10.2%	0.099	0.215
	-0.87	2.37[c]	0.38	1.32	0.88	0.29	-0.02	0.83	0.34	-0.51	0.51	-0.04	-0.28	-0.45	0.48	-0.59					
Panel D: By legal origin, non-FRU firms																					
English	-0.050	0.016	0.168	0.042	0.034	-0.062	0.121	0.033	0.023	-0.036	0.077	-0.023	-0.020	0.084	-0.186	0.017	7 003 / 1 450	60.7	12.6%	0.113	-0.157
	-3.29[a]	1.11	4.70[a]	2.39[c]	1.46	-1.52	2.09[c]	2.64[b]	1.22	-1.61	1.59	-1.17	-0.71	1.84[d]	-2.60[b]	1.73[d]					
French	-0.017	0.073	0.026	-0.006	0.011	-0.021	0.036	0.028	-0.004	-0.075	0.204	0.000	-0.004	0.080	-0.216	0.033	8 123 / 1 308	47.1	9.7%	0.279	-0.017
	-1.09	3.84[a]	0.80	-0.53	0.58	-0.98	0.83	2.51[c]	-0.19	-2.88[b]	4.37[a]	-0.03	-0.16	3.64[a]	-3.80[a]	3.72[a]					
German	-0.044	0.041	0.196	0.013	0.033	-0.042	-0.016	0.002	0.078	0.068	0.100	-0.004	-0.077	-0.030	-0.149	0.036	3 797 / 785	21.9	10.5%	0.032	-0.088
	-1.27	1.68[d]	2.01[c]	0.63	0.90	-1.21	-0.16	0.08	1.72[d]	2.08[c]	0.74	-0.12	-1.60	-0.68	-1.04	2.20[c]					
Scandi-navian	-0.027	0.037	0.358	-0.001	0.030	0.023	-0.152	0.020	-0.008	-0.026	-0.084	0.005	-0.011	0.017	-0.027	0.032	3 230 / 558	27.8	17.1%	-0.058	-0.103
	-0.67	0.91	3.91[a]	-0.03	0.64	0.44	-1.39	0.88	-0.18	-0.55	-0.83	0.16	-0.21	0.30	-0.23	1.66[d]					

Reported items are regression coefficients, with associated t-statistic below. T-statistics are based on standard errors adjusted for cluster analysis (each firm represents one cluster), and estimated under the heteroscedasticity consistent White method.

a, b, c, d denotes two-tailed significance at p inferior to 0.001, 0.01, 0.05, and 0.10, respectively.

"Big 4 effect Local" designates the effect of Big 4 auditors on the overall level of prudence (vs. aggressiveness) in accounting earnings under Local accounting standards, i.e., bad news minus good news timeliness ($\beta_{11} - \beta_{10}$). Similarly, "Big 4 effect IFRS" designates the effect of Big 4 auditors on the overall level of prudence (vs. aggressiveness) in accounting earnings under IFRS, computed as ($\beta_{15} - \beta_{14}$) + ($\beta_{11} - \beta_{10}$).

Table 7: Results for model (1.3) by country

$$EPS\_AF_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it}R_{it} + \beta_4 IFRS_{it} + \beta_5 IFRS_{it}D_{it} + \beta_6 IFRS_{it}R_{it} + \beta_7 IFRS_{it}D_{it}R_{it} + \beta_8 B4_{it} + \beta_9 B4_{it}D_{it} + \beta_{10} B4_{it}R_{it} + \beta_{11} B4_{it}D_{it}R_{it} + \beta_{12} B4_{it}IFRS_{it} + \beta_{13} B4_{it}IFRS_{it}D_{it} + \beta_{14} B4_{it}IFRS_{it}R_{it} + \beta_{15} B4_{it}IFRS_{it}D_{it}R_{it} + \varepsilon$$

Country	β_2	β_3	β_6	β_7	β_{10}	β_{11}	β_{14}	β_{15}	Loc_ GN_ B4	Loc_ BN_ NB4	Loc_ BN_ B4	IFR_ GN_ NB4	IFR_ GN_ B4	IFR_ BN_ NB4	IFR_ BN_ B4	Big 4 effect Local	Big 4 effect IFRS
AT	0.021	0.385	0.056	-0.211	**0.072**	**0.360**	**-0.120**	**-0.551**	0.093	0.406	0.837	0.149	0.029	-0.062	-0.614	0.288	-0.143
BE	0.109	0.379	-0.053	-0.294	**0.024**	**-0.175**	**0.021**	**0.086**	0.133	0.488	0.336	0.079	0.101	-0.215	-0.129	-0.199	-0.135
DE	0.003	0.200	-0.041	0.125	**0.104**	**0.049**	**-0.049**	**-0.151**	0.108	0.203	0.356	0.067	0.018	0.191	0.040	-0.055	-0.158
DK	0.118	0.541	-0.082	-0.283	**-0.106**	-0.355	**0.143**	**0.138**	0.012	0.659	0.198	-0.070	0.073	-0.353	-0.215	-0.249	-0.255
ES	0.495	-0.368	-0.490	0.664	-0.503	0.528	0.582	-0.820	-0.008	0.126	0.151	-0.499	0.084	0.165	-0.655	1.031	-0.372
FI	0.096	0.016	-0.004	0.220	**-0.088**	**0.223**	**0.116**	-0.507	0.008	0.111	0.247	0.004	0.120	0.224	-0.283	0.311	-0.312
FR	0.082	0.089	-0.064	0.071	-0.111	0.174	0.133	-0.242	-0.029	0.171	0.233	-0.093	0.040	-0.022	-0.264	0.285	-0.090
GB	0.014	0.169	-0.061	0.123	**-0.033**	**0.076**	0.084	-0.181	-0.019	0.183	0.226	-0.080	0.005	0.043	-0.137	0.109	-0.156
GR	0.030	0.065	0.032	-0.089	**0.010**	**-0.013**	**0.009**	**0.024**	0.040	0.094	0.091	0.072	0.081	-0.017	0.007	-0.023	-0.008
IE	0.161	0.048	-0.078	0.079	**-0.207**	**0.153**	**0.103**	**-0.182**	-0.046	0.209	0.156	-0.123	-0.020	-0.045	-0.226	0.360	0.075
IT	-0.008	-0.121	-0.041	0.250	**0.047**	**0.210**	**0.079**	-0.319	0.040	-0.128	0.129	-0.001	0.078	0.249	-0.070	0.163	-0.235
LU	0.246	-0.158	-0.171	0.242	**-0.161**	**0.467**	**0.128**	**-0.485**	0.085	0.088	0.395	-0.086	0.042	0.156	-0.328	0.628	0.016
NL	0.205	-0.625	-0.067	0.798	-0.230	1.072	**0.091**	-1.077	-0.025	-0.420	0.422	-0.092	-0.001	0.706	-0.371	1.302	0.135
PL	0.031	0.379	0.013	-0.320	0.106	**-0.165**	**-0.069**	**0.093**	0.138	0.410	0.351	0.150	0.081	-0.170	-0.077	-0.271	-0.109
PT	0.126	-0.345	0.042	0.357	**-0.124**	0.571	**0.010**	-0.737	0.002	-0.219	0.227	0.043	0.053	0.400	-0.337	0.695	-0.052
SE	0.059	0.253	0.005	-0.079	**-0.039**	**0.032**	**-0.008**	**-0.039**	0.021	0.313	0.306	0.026	0.018	-0.053	-0.092	0.071	0.040

Spearman rank correlation with investor protection and auditor litigation indices

	β_2	β_3	β_6	β_7	β_{10}	β_{11}	β_{14}	β_{15}	Loc_ GN_ B4	Loc_ BN_ NB4	Loc_ BN_ B4	IFR_ GN_ NB4	IFR_ GN_ B4	IFR_ BN_ NB4	IFR_ BN_ B4	Big 4 effect Local	Big 4 effect IFRS
Anti-Dir. Rights	0.358	-0.246	**-0.635**[c]	0.313	**-0.617**[c]	0.107	**0.707**[b]	-0.148	**-0.702**[b]	-0.134	**-0.541**[c]	**-0.791**[a]	-0.291	0.067	-0.353	0.340	-0.219
Creditor Rights	-0.206	0.187	-0.187	0.107	0.196	-0.032	-0.094	-0.005	0.153	0.107	0.165	0.039	-0.244	0.005	0.014	-0.101	-0.311
Auditor Litigation	-0.170	-0.087	**-0.578**[c]	0.232	-0.053	-0.067	0.235	0.048	-0.407	-0.009	-0.039	**-0.562**[c]	**-0.580**[c]	0.140	0.255	-0.030	0.104

Model (1.3) could not be estimated for five countries due to colinearity problems for one or more exogenous variables: Czech Republic (CZ), Estonia (EE), Lithuania (LT), Slovakia (SK), and Slovenia (SI). Also, results for Hungary (HU 129 obs.) are not considered because of high, abnormal values for coefficients, which suggest estimation and convergence problems. The number of firm-year observations exceeds 100 for all countries except Luxemburg (72 obs.).

Significantly non-null β_{10}, β_{11}, β_{14}, β_{15} coefficients ($p < 0.10$ or better) are reported in red bold characters.

Under Local GAAP, good news (bad news) sensitivity equals β_2 ($\beta_2 + \beta_3$, labeled Loc_BN_NB4) for non-Big 4 audits; and $\beta_2 + \beta_{10}$, labeled Loc_GN_B4 ($\beta_2 + \beta_{10} + \beta_3 + \beta_{11}$, labeled Loc_BN_B4) for Big 4 audits. Under IFRS reporting, good news (bad news) news sensitivity equals $\beta_2 + \beta_6$, labeled IFR_GN_NB4 ($\beta_2 + \beta_3 + \beta_6 + \beta_7$, labeled IFR_BN_NB4) for non-Big 4 audits; and $\beta_2 + \beta_6 + \beta_{10} + \beta_{14}$, labeled IFR_GN_B4 ($\beta_2 + \beta_3 + \beta_6 + \beta_7 + \beta_{10} + \beta_{11} + \beta_{14} + \beta_{15}$, labeled IFR_BN_NB4) for Big 4 audits.

"Big 4 effect Local" designates the effect of Big 4 auditors on the overall level of prudence (vs. aggressiveness) in accounting earnings under Local accounting standards, i.e., bad news minus good news timeliness ($\beta_{11} - \beta_{10}$). Similarly, "Big 4 effect IFRS" designates the effect of Big 4 auditors on the overall level of prudence (vs. aggressiveness) in accounting earnings under IFRS, computed as ($\beta_{15} - \beta_{14}$) + ($\beta_{11} - \beta_{10}$).

The bottom lines of the table reports Spearman rank correlations between the above timeliness metrics and country-level metrics of investor protection and auditor litigation (a, b, c, and d denote significant Spearman correlations at p inferior to 0.001, 0.01, 0.05, and 0.10, respectively):

- AD Rights refers to the revised Anti-Director (AD) rights index used in Djankov et al. (2008), improved from La Porta et al. (1998) in collaboration with Lex Mundi worldwide law firms. The index resumes six types of legal provisions in use in May 2003, and then takes values between 0 and 6 (Djankov et al. 2008, Table 9). Its correlation with the La Porta et al. (1998) AD index is claimed to be 0.6 by the authors.

- Creditor Rights refers to the creditor rights index used in Djankov et al. (2007). This index measures four powers of secured lenders in bankruptcy: (1) whether there are restrictions, such as creditor consent, when a debtor files for reorganization; (2) whether secured creditors are able to seize their collateral after the petition for reorganization is approved, that is, whether there is no automatic stay or asset freeze imposed by the court; (3) whether secured creditors are paid first out of the proceeds of liquidating a bankrupt firm; and (4) whether an administrator, and not management, is responsible for running the business during the reorganization. A value of one is added to the index when a country's laws and regulations provide each of these powers to secured lenders. The creditor rights index aggregates the scores and varies between 0 (poor creditor rights) and 4 (strong creditor rights) (Djankov et al. 2007: 302).

- Auditor Litigation is the litigation index used by Wingate (1997), i.e., a risk rating developed by an insurance underwriter for one of the Big 6 audit firms.

Table 8: Test for auditor effects on cross-country timeliness metrics under Local GAAP and IFRS settings (N = 16 countries)

	Timeliness metrics under Local GAAP reporting						Timeliness metrics under IFRS reporting					
	Good news sensitivity			Bad news sensitivity			Good news sensitivity			Bad news sensitivity		
	Non-Big 4	Big 4	p-value	Non-Big 4	Big 4	p-value	Non-Big 4	Big 4	p-value	Non-Big 4	Big 4	p-value
Mean	0.112	0.034	0.063	0.168	0.291	0.116	-0.028	0.050	0.062	0.075	-0.235	0.004
Median	0.089	0.016	0.063	0.177	0.240	0.121	0.002	0.048	0.023	0.013	-0.221	0.004
Std dev.	**0.126**	**0.059**	**0.006**	**0.269**	**0.176**	**0.111**	**0.153**	**0.040**	**0.000**	**0.256**	**0.198**	**0.335**
Min	-0.008	-0.046		-0.420	0.091		-0.499	-0.020		-0.353	-0.655	
Max	0.495	0.138		0.659	0.837		0.150	0.120		0.706	0.040	

This table reports cross-country (N = 16) descriptive statistics for timeliness metrics issued from Model (1.3): $EPS\_AF_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} + \beta_3 D_{it} R_{it} + \beta_4 IFRS_{it} + \beta_5 IFRS_{it} D_{it} + \beta_6 IFRS_{it} R_{it} + \beta_7 IFRS_{it} D_{it} R_{it} + \beta_8 B4_{it} + \beta_9 B4_{it} D_{it} + \beta_{10} B4_{it} R_{it} + \beta_{11} B4_{it} D_{it} R_{it} + \beta_{12} B4_{it} IFRS_{it} + \beta_{13} B4_{it} IFRS_{it} D_{it} + \beta_{14} B4_{it} IFRS_{it} R_{it} + \beta_{15} B4_{it} IFRS_{it} D_{it} R_{it} + \varepsilon$.

Under Local GAAP, good (bad) news sensitivity equals β_2 ($\beta_2 + \beta_3$) for non-Big 4 audits; and $\beta_2 + \beta_{10}$ ($\beta_2 + \beta_{10} + \beta_3 + \beta_{11}$) for Big 4 audits.
Under IFRS reporting, good (bad) news sensitivity equals $\beta_2 + \beta_6$ ($\beta_2 + \beta_3 + \beta_6 + \beta_7$) for non-Big 4 audits; and $\beta_2 + \beta_6 + \beta_{10} + \beta_{14}$ ($\beta_2 + \beta_3 + \beta_6 + \beta_7 + \beta_{10} + \beta_{11} + \beta_{14} + \beta_{15}$) for Big 4 audits.

p-values are based on paired sample t-tests for mean comparisons, paired sample Wilcoxon signed ranks tests for median comparisons, are Fisher f-test for variances comparisons.