

Title

The reconsideration of IFRS adoption, and audit fees: Evidence from UK private firms

Running Title

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Reconsideration of IFRS adoption, and audit fees: Evidence from UK private firms

Synopsis

The research problem

This paper examines whether firms' decision to switch from IFRS to new Generally Accepted Accounting Practice in the UK (New UK GAAP) affects their audit fees.

Motivation

New UK GAAP was introduced by the UK regulator to enhance the comparability of financial reports and to reduce high financial reporting costs associated with IFRS. We aim to provide evidence on whether reduced frameworks of International Financial Reporting Standards (IFRS), like the New UK GAAP, may be a more cost-effective option. Furthermore, very few studies analyze the impact of abandoning IFRS on audit fees and they find inconsistent results using public firm data. We aim to extend current literature by providing private firm data.

The test hypotheses

H1a: The switch from IFRS to New UK GAAP is not associated with audit fees.

H1b: The switch from IFRS to New UK GAAP is associated with audit fees.

H2: The association between the switch from IFRS to New UK GAAP and audit fees is different between larger and smaller firms.

Target population

Accounting regulators, managers, and auditors.

Adopted methodology

Regression analyses, difference-in-differences (DID) analyses, various matching methods for robustness and analyses of firms' financial reports.

Analyses

Using UK private (i.e., non-listed) firm data for the period 2014–2019, we examine the impact of switching from IFRS to New UK GAAP on audit fees. The data for regression and DID analyses were obtained from the FAME database. We also download the financial reports of two firms from Companies House to analyze the differences in their reports before and after the switch to New UK GAAP.

Findings

We find that firms' decision to switch from IFRS to New UK GAAP significantly reduces their audit fees, with larger firms experiencing an additional reduction in their audit fees following the switch. Through examining real examples of firms' financial reports, we find consistent evidence that firms turning away from IFRS did take advantage of the disclosure exemptions contained within New UK GAAP, resulting in reduced disclosure which may explain the reduced audit fees. Overall, our findings suggest that using full IFRS may still be burdensome for sampled firms that previously voluntarily adopted IFRS. The findings also imply that an accounting standard that is consistent with IFRS but requires less disclosure, such as New UK GAAP or the IFRS for Small and Medium-sized Entities, may be welcomed by practitioners and represent a useful alternative for standard setters.

Keywords: IFRS; New UK GAAP; audit fees; private firms.

JEL Classification: M41, M42, M48.

1. Introduction

The new Generally Accepted Accounting Practice in the United Kingdom (New UK GAAP) replaced the old UK GAAP in 2015 (Institute of Chartered Accountants in England and Wales [ICAEW], 2019). New UK GAAP was introduced by the Financial Reporting Council (FRC) to enhance the comparability of financial reports across the UK by improving the consistency between UK GAAP and International Financial Reporting Standards (IFRS) (Deloitte, 2019). The FRC also sought to achieve this goal through reducing financial reporting costs and, therefore, ensure that the preparers of financial reports will not have to bear the high compliance costs that IFRS adopters tend to experience (Deloitte, 2019). Hence, the FRC adopted a similar approach to that of the International Financial Reporting Standard for Small and Medium-sized Entities (IFRS for SMEs).

We find that among 1,602 sampled UK private (i.e., non-listed) firms that had previously voluntarily adopted IFRS, 701 firms (i.e., 43.8% of the sampled firms) switched to New UK GAAP during 2015–2019.¹ As UK private firms were not required to adopt IFRS, those firms that voluntarily did so must have perceived certain net benefits associated with IFRS implementation. The high percentage of switching away from IFRS in UK private firms therefore motivates the present study. More specifically, this study will investigate whether UK private firms can obtain benefits by switching from IFRS to New UK GAAP. The FRC has claimed that New UK GAAP, which converges with IFRS but requires less disclosure, is a more cost-effective option than full

¹ The temporal distribution of the 701 switching firms is as follows: 241 firms in 2015, 185 firms in 2016, 83 firms in 2017, 65 firms in 2018 and 127 firms in 2019 deciding to switch from IFRS to New UK GAAP.

IFRS (FRC, 2018b). Hence, one potential benefit for UK private firms of switching from IFRS to New UK GAAP would be reduced financial reporting costs. If the FRC's claim is true, we should observe lower financial reporting costs.

Audit fees are widely used as a proxy for measuring financial reporting costs, and there is an ongoing discussion, mainly based on public firms in various countries, regarding the relationship between IFRS adoption and audit fees (De George *et al.*, 2013; Kim *et al.*, 2012; Miah *et al.*, 2020; Raffournier & Schatt, 2018). Hence, following previous studies (De George *et al.*, 2013; Kim *et al.*, 2012), this paper investigates whether UK private firms' decision to change their accounting standards from IFRS to New UK GAAP affects their audit fees. As UK private firms can freely choose between IFRS and New UK GAAP, the UK setting allows us to compare firms that use different accounting standards under the same economic and institutional conditions. Furthermore, the UK has a very strong institutional setting with well-established accounting and auditing environment and regulations (Tawiah, 2021), and the litigation risk of auditors in the UK is often higher than that in other countries (Cameran & Perotti, 2014). Hence, it will be interesting to understand whether and how the switch from IFRS to New UK GAAP affects UK private firms' audit fees which also reflect audit risk.

Additionally, private firms which are relatively seldom studied play an important role in global economy (e.g., in job providing) (Ball & Shivakumar, 2005). The differences in the nature of private and public firms also result in several major differences in financial reporting between these

two types of firms. For example, compared with public firms, tax and dividend considerations have a stronger influence on private firms and heavily affect their accounting choices (Ball & Shivakumar, 2005). Private firms with more concentrated ownership, which is often negatively associated with audit fees, rely less on external financial reporting to solve agency problems (Bassemir, 2018; Cameran *et al.*, 2014; Hope *et al.*, 2012). Accordingly, there is a discussion of whether private firms should adopt IFRS. For example, Matonti and Iuliano (2012) argue that IFRS is more suitable for public firms rather than private firms which are less likely to benefit from IFRS adoption. However, Bassemir (2018) shows that private firms with external financial needs or incentives to reduce information asymmetry may find IFRS useful. Cameran *et al.* (2014) reveals that Italian private firms' earnings quality decreased after the IFRS adoption, whereas Bassemir and Novotny-Farkas (2018) show that German private firms with financial needs enjoy higher earnings quality following the IFRS adoption. No research has been found that specifically investigated IFRS and audit fees using private firm data. Therefore, our study has potential to advance our understanding in this area.

Based on UK private firm data for the period 2014–2019, our results show that switching from IFRS to New UK GAAP significantly reduces firms' audit fees. Furthermore, larger firms that turn away from IFRS experience an additional reduction in their audit fees, compared with smaller firms. In robustness analyses, we conduct a change model analysis and control for the potential self-selection bias related to the choice of accounting standards. We also exclude financial institutions

from the sample and control for the effect of intangible assets. Difference-in-differences (DID) analyses with different matching methods are also conducted. The results of the robustness tests are consistent with the main findings.

In addition, we analyze real examples of financial reports to investigate how the switch from IFRS to New UK GAAP affects firms' financial reporting. We find that firms often indicate in their first New UK GAAP financial reports that they take advantage of the disclosure exemptions available within New UK GAAP. One company even directly states that the switch from IFRS to New UK GAAP reduced their disclosure level. These findings further support our argument that the reduced disclosure following the switch may result in lower audit fees.

This paper makes several important contributions to both accounting literature and practice. First, this paper is the first to investigate how private firms' decision to turn away from IFRS affects their audit fees. It extends current literature that shows inconclusive evidence on the effect of abandoning IFRS on audit fees in public firms, and enhances our understanding of private firms' financial reporting (Fiechter *et al.*, 2018; Raffournier & Schatt, 2018). Additionally, our results imply that the switch from IFRS to New UK GAAP does not significantly increase audit risk but leads to a greater cost saving for larger firms, different from those found by Raffournier and Schatt (2018) that larger listed companies experience higher audit fees after the switch from IFRS to Swiss GAAP. Our results thus advance our understanding of the firm size effect. Furthermore, in contrast to previous studies, which mainly discuss IFRS adoption, this paper investigates the switch away

from IFRS. It shows that IFRS may still be costly for firms that once perceived IFRS adoption to offer net benefits. Since empirical evidence regarding the cost of using IFRS remains limited (Christensen, 2012; Raffournier & Schatt, 2018), our study, which reveals high audit fees to be part of the cost of using IFRS, helps to address this research gap.

Literature indicates that the design of IFRS is heavily affected by developed Anglo-American countries like the UK (Shan & Troshani, 2016). Even so, IFRS adoption leads to higher audit fees in UK listed companies (Khlif & Achek, 2016), and our results further imply that UK private firms which voluntarily adopted IFRS may still find IFRS burdensome. Therefore, our findings suggest that standard setters should carefully reconsider the design of IFRS if they want more companies to voluntarily adopt it. Additionally, our paper provides early evidence for the FRC to evaluate New UK GAAP. Overall, our results support the FRC's suggestion that New UK GAAP represents a more cost-effective standard and helps to reduce financial reporting costs, implying that simplified IFRS standards, such as New UK GAAP or IFRS for SMEs, could be useful regulatory tools. Our results derived from private firms are also relevant to public companies (e.g., UK listed companies which can choose between New UK GAAP and IFRS for their individual accounts) and can help them in evaluating accounting standards. Since the high costs of adopting IFRS and rare voluntary adoption of IFRS are documented worldwide (Christensen, 2012), our study offers important policy implications not only to the UK but also to other countries.

The remainder of this paper is organized as follows. Section 2 explains the background to New

UK GAAP and reviews relevant literature regarding IFRS adoption and audit fees. Section 3 discusses the data and sample selection, and Section 4 presents the key models. Section 5 presents and discusses the empirical results. Finally, Section 6 offers a conclusion to the study.

2. Literature review and hypothesis development

2.1 Background to New UK GAAP

Since 2005, all UK listed companies have been required to adopt IFRS for their consolidated financial statements. However, UK private firms are still able to freely choose between UK GAAP and IFRS. This permissibility of choice in terms of accounting standards has led to an inconsistency in financial reporting in the UK. To overcome this problem, the FRC began developing a new financial reporting framework, New UK GAAP (PWC, 2013a). New UK GAAP replaced the old UK GAAP in 2015, with the aim of providing a financial reporting standard that is consistent with IFRS but requires less disclosure (Deloitte, 2019, FRC, 2018a, 2018b). New UK GAAP consists of two main accounting standards (Deloitte, 2019). The first standard is FRS 101, which is termed ‘Reduced Disclosure Framework’. This accounting standard follows the concepts of full IFRS but allows for many exemptions (FRC, 2018a). Hence, FRS 101 is consistent with IFRS but requires less disclosure. For example, exemptions are available for disclosures of statements of cash flow, financial instruments, intangible assets, related party transactions and new IFRS standards that have not yet become effective. The second accounting standard is FRS 102, which is termed ‘Financial Reporting Standard applicable in the UK and Republic of Ireland.’ FRS 102 was mainly based on

IFRS for SMEs, although it still contains requirements from old UK GAAP, with the aim of it being cost-effective for companies to implement (FRC, 2018b). Similar to FRS 101, FRS 102 also includes several disclosure exemptions, such as statements of cash flow, financial instruments and key management personnel compensation (PWC, 2013b).

As one of the major criticisms of IFRS is the high financial reporting cost (Jermakowicz & Gornik-Tomaszewski, 2006), many accounting regulators have sought to identify a way to tackle this issue and achieve better accounting convergence. IFRS for SMEs and New UK GAAP have been designed with this aim in mind. Thus, the present paper aims to examine whether turning away from IFRS helps companies to reduce relevant costs as well as whether New UK GAAP could help accounting regulators to achieve their objectives.

2.2 IFRS adoption: benefits and costs

A significant number of prior studies examine the benefits and costs associated with IFRS adoption (Brüggemann *et al.*, 2013; Daske, 2006; Soderstorm & Sun, 2007). In terms of the benefits of adopting IFRS, these studies tend to find a positive impact of IFRS on capital markets. For example, Brüggemann *et al.* (2013) show that IFRS adoption often leads to a lower cost of capital and more accurate analyst forecasts. Furthermore, Barth *et al.* (2014) prove that IFRS helps to provide more value-relevant accounting information. Barth *et al.* (2012) also report that IFRS adoption could improve the comparability of financial reporting. The enhanced comparability of financial reporting in the post-IFRS period will also help companies to attract foreign shareholders

(DeFond *et al.*, 2011). In addition, Ball (2006) argues that IFRS may enhance the transparency of financial reporting, which will also be welcomed by investors.

However, IFRS does face various criticisms. For instance, Brüggemann *et al.* (2013) indicate that IFRS adoption does not always bring positive impacts. They show that studies on the mandatory adoption of IFRS often fail to document a positive impact on companies' earnings quality. Similarly, Christensen *et al.* (2015) prove that the incentives to adopt IFRS determine whether companies can enjoy better financial reporting quality following IFRS adoption.

Several researchers also indicate that implementing IFRS is very costly, with the adoption cost often being higher than the cost associated with the use of other accounting standards (Christensen *et al.*, 2015; Jermakowicz & Gornik-Tomaszewski, 2006). IFRS requires companies to disclose a significant amount of information, which is known to be burdensome for some companies, particularly smaller firms (Jermakowicz & Gornik-Tomaszewski, 2006). The high disclosure level required by IFRS may also render companies less competitive because their competitors will be able to obtain more information from their financial reports (Horton & Serafeim, 2010).

Additionally, increased audit fees represent another cost that firms need to consider when adopting IFRS (De George *et al.*, 2013; Kim *et al.*, 2012).

Christensen (2012) notes that the benefits of IFRS documented by prior research may not be real given that the percentage of voluntary IFRS adoption remains low worldwide. In our UK setting, we find that 43.8% of sampled firms (i.e., 37.6% of the total firm-year observations) that

previously voluntarily adopted IFRS later choose to switch to New UK GAAP. The high probability of firms abandoning IFRS following the introduction of New UK GAAP motivates this research. As indicated by Christensen (2012), the current literature focuses too heavily on the benefits of adopting IFRS and further research addressing the costs of IFRS adoption is necessary to clarify what the costs actually are. Hence, our paper aims to investigate the cost of IFRS implementation through analyzing the impact of switching away from IFRS on audit fees. As most prior research focuses on firms adopting IFRS, rather than on firms turning away from IFRS, our paper will provide additional information concerning the costs of using IFRS.

2.3 The impact of switching from IFRS to New UK GAAP on audit fees

Audit fees are widely discussed in literature (Gul *et al.*, 2003; Lee, 1996). They are often used to measure financial reporting costs (De George *et al.*, 2013). A series of papers analyze the relationship between IFRS adoption and audit fees. For example, Cameran and Perotti (2014) focus on the Italian banking industry and find that audit fees increase following IFRS adoption due to the extra effort required in relation to complicated accounting items, such as hedging derivatives. In addition, using European data, Kim *et al.* (2012) show that mandatory IFRS adoption, associated with increased complexity, is positively related to audit fees. Similarly, using Australian data, De George *et al.* (2013) document a positive relationship between IFRS adoption and audit fees. They note that many of the IFRS requirements (e.g., intangible assets and financial instruments) are complex. Thus, more audit effort is required, resulting in higher audit fees. Subsequent studies

using data from countries such as China, Malaysia and Jordan also find increased audit fees following the adoption of IFRS (Abu Rishah & Al-Saeed, 2014; Lin & Yen, 2016; Yaacob & Che-Ahmad, 2012).

Unlike the above literature that discusses IFRS adoption, very few studies analyze the impact of turning away from IFRS on audit fees and find inconsistent results using public firm data (Fiechter *et al.*, 2018; Raffournier & Schatt, 2018). Hence, we aim to extend the current literature by providing private firm data. Different from Fiechter *et al.* (2018) whose conclusion regarding the impact of turning away from IFRS on audit fees is based on descriptive statistics, we will conduct regression and DID analyses which should help to further confirm the results. Furthermore, in contrast to the work of Fiechter *et al.* (2018) and Raffournier and Schatt (2018) analyzed Swiss listed firms, our paper focuses on UK private firms.

As discussed above, previous studies show that IFRS is more complicated and costly to implement than other accounting standards (Christensen *et al.*, 2015; De George *et al.*, 2013; Kim *et al.*, 2012). The principles-based IFRS and its use of the concept of fair value also result in more effort being required in relation to audits (Kim *et al.*, 2012). The additional disclosures required by IFRS also lead to additional financial reporting costs and audit fees (Jermakowicz & Gornik-Tomaszewski, 2006). The common finding of prior studies is that IFRS adoption results in higher audit fees (Cameran & Perotti, 2014; De George *et al.*, 2013; Kim *et al.*, 2012; Lin & Yen, 2016). Fiechter *et al.* (2018) also show that Swiss listed companies have lower audit fees after abandoning

IFRS. Hence, we expect firms to experience lower audit fees after turning away from IFRS. This is because compared with IFRS, New UK GAAP is less complicated (due to simplified regulations) and requires a lower level of disclosure. Therefore, the switch from IFRS to New UK GAAP would reduce the complexity of financial reporting and the disclosure level, resulting in lower audit effort and lower audit fees.

Furthermore, the literature related to IFRS and audit fees indicates that the difference between IFRS and local GAAP will affect the audit fees after IFRS adoption (Miah *et al.*, 2020). Since New UK GAAP much more closely converges with IFRS than Swiss GAAP, resulting in smaller differences between New UK GAAP and IFRS. This should lead to lower transition costs and less audit effort being required to deal with different treatments under different accounting standards following the switch. New UK GAAP is designed especially to be consistent with IFRS but also to lower preparers' financial reporting costs through simplified regulations and exemptions (Deloitte, 2019; FRC, 2018a, 2018b). If the FRC has designed New UK GAAP well to achieve these goals, it is very likely that firms that opt to switch from IFRS to New UK GAAP will be able to reduce their audit fees (due to less audit effort needed to deal with simplified regulations and reduced disclosures under New UK GAAP). For private firms, which face less pressure to reduce agency costs through financial reporting than public firms (Bassemir, 2018), the switch from IFRS to local GAAP should also have less of a negative impact on the firms and hence on the audit risk and the audit fees. In this situation, UK private firms' switch from IFRS to New UK GAAP associated with

low audit risk and less audit effort is likely to lead to lower audit fees.

However, previous literature highlights the phenomenon of audit fee stickiness (i.e., audit fees may not change quickly when conditions change) (De Villiers *et al.*, 2014). Several scholars further indicate that audit fee stickiness is more pronounced in a downward direction (Chang *et al.*, 2019; De Villiers *et al.*, 2014). This is because companies are more reluctant to adjust prices when facing a downward adjustment. Hence, when accountancy firms face a downward adjustment in audit fees, they are more likely to delay this adjustment. For instance, Raffournier and Schatt (2018) do not find lower audit fees after Swiss listed firms switch from IFRS to Swiss GAAP. In our UK setting, the switch from IFRS to New UK GAAP may not be significantly associated with audit fees if auditors are reluctant to adjust (or delay adjusting) audits fees following the changes of accounting standards. Particularly, our setting is more likely to be associated with a downward adjustment (rather than an upward one), if any, when audit fee stickiness is more likely to occur.

Additionally, Ye *et al.* (2018) indicate that enhanced transparency following the IFRS adoption may help to reduce audit risk and therefore result in lower audit fees. This suggests that reduced disclosure (such as that under New UK GAAP) associated with lower transparency and higher audit risk may lead to higher audit fees. Although we expect it is less likely that the audit risk in UK private firms will substantially increase following the switch from IFRS to New UK GAAP which is designed to be consistent with IFRS, we cannot rule out this possibility. For example, if auditors think the reduced disclosure under New UK GAAP substantially reduces information transparency

and hence increases audit risk, they may increase audit fees after firms switch from IFRS to New UK GAAP. Raffournier and Schatt (2018) show that the switch from IFRS to Swiss GAAP is associated with higher audit fees in larger listed companies (due to increased audit risk). Their results lend support to the above argument that turning away from IFRS does not always result in lower audit fees and may even increase audit fees.

On a related note, Christensen *et al.* (2015) indicate that companies' incentives to adopt a financial reporting standard affect their benefits following the IFRS adoption. Therefore, some factors that affect companies' decision to switch from IFRS to New UK GAAP may influence audit fees at the same time.² For example, if some factors (e.g., changes in market conditions) prompt companies to change from IFRS to New UK GAAP (e.g., to save financial reporting costs or to apply more suitable accounting rules), this move may affect audit fees at the same time. Hence, audit fees may increase or decrease following the switch from IFRS to New UK GAAP, depending on companies' incentives to switch and the concurrent events.

Overall, whether UK private firms' audit fees change after the switch from IFRS to New UK GAAP depends on several factors, including the design of New UK GAAP, subsequent audit risk and effort, firms' incentives to adopt New UK GAAP, and auditors' decisions on fee adjustment.

Therefore, we test the following hypotheses:

H1a: The switch from IFRS to New UK GAAP is not associated with audit fees.

² Later in our empirical analyses, we will use a three-stage least squares (3SLS) method to deal with the potential endogeneity.

H1b: The switch from IFRS to New UK GAAP is associated with audit fees.

A number of prior studies partition the sample into subsamples by firm size, and indicate that firm size may affect the relationship between IFRS adoption and audit fees (De George *et al.*, 2013; Raffournier & Schatt, 2018). For example, De George *et al.* (2013) show that smaller firms experience a disproportionately large increase in audit fees following IFRS adoption when compared with larger firms. Similarly, Raffournier and Schatt (2018) find that smaller firms experience a greater audit fee increase following IFRS adoption. One may then expect that smaller firms have a greater saving (in terms of audit fees) than larger firms after the turn away from IFRS. Lacking technical knowledge and internal resources in smaller firms are often regarded as the main reason why these firms disproportionately bear higher costs of adopting IFRS than larger firms (De George *et al.*, 2013). However, the reverse of this argument related to internal resources may not be directly applied to the switch from IFRS to New UK GAAP because New UK GAAP is designed to be aligned with IFRS but simpler than IFRS, and all private firms (large or small) discussed in our paper were all IFRS adopters previously. Therefore, the greater audit fee increase from IFRS adoption in smaller firms may not be directly reversed to the greater audit fee decrease from turning away from IFRS.

Moreover, smaller firms tend to have simpler businesses models (Sian & Roberts, 2009) and shorter financial reports. Thus, it is more likely that larger firms can experience a larger reduction in

disclosures and audit fees following the switch from IFRS to New UK GAAP. Furthermore, larger firms whose financial reporting tends to be more complicated may be more likely to benefit from simplified regulations under New UK GAAP (e.g., through reducing the complexity of financial reporting), compared with smaller firms whose financial reporting is relatively simpler with fewer accounting rules being relevant (Sian & Roberts, 2009). This may also lead to larger firms having a greater audit fee decrease than smaller firms after the switch from IFRS to New UK GAAP.

Additionally, Raffournier and Schatt (2018) indicate that smaller firms disproportionately bear greater costs of adopting IFRS (e.g., in terms of audit fees) because these firms lacking internal resources tend to find the change of accounting standards difficult and need to rely on external advice. A similar explanation can also be found in De George *et al.* (2013). One may then ask whether the switch from IFRS to New UK GAAP, a change of accounting standards, also results in disproportionately higher audit fees in smaller firms. Since New UK GAAP converges with IFRS and is with reduced disclosures and simplified regulations, the switch should not be very difficult for smaller UK private firms which adopted IFRS before. Hence, it is not very likely that smaller firms would experience disproportionately higher audit fees after the switch. However, we cannot rule out this possibility.

Raffournier and Schatt's (2018) study reveals another possibility. They show that the switch from IFRS to Swiss GAAP does not lower the audit fees for smaller firms (due to fee stickiness), although it increases the audit fees for larger firms (due to increased audit risk). For larger firms

whose financial reports tend to be longer, the reduction in disclosure after the switch from IFRS to New UK GAAP is likely to be larger. This may lead to a greater decrease in information transparency (Ye *et al.*, 2018) in larger firms, resulting in a greater increase in audit risk and audit fees after the switch.

Following the above discussion which shows firm size may affect the results in different ways, we test the following hypothesis.

H2: The association between the switch from IFRS to New UK GAAP and audit fees is different between larger and smaller firms.

3. Data and sample selection

As this paper focuses on UK private firms that voluntarily adopted IFRS prior to switching to New UK GAAP, which was enforced in 2015, we obtain the necessary accounting information from the FAME database between 2014 and 2019.³ We start with firm-year observations which were IFRS users in 2014⁴ and a total of 4,640 observations were obtained from the database. We then delete the observations with missing data, leaving a final sample of 3,461 firm-year observations. The sample selection information can be found in Panel A of Table 1. The variables are winsorized at the 0.5% and 99.5% levels to eliminate outlier influence.

³ Although the data are available from 2010, UK private firms can change their accounting standards freely and it is not uncommon that they switched between UK GAAP and IFRS during 2010-2014. To ensure that we capture the effect of switching from IFRS to New UK GAAP properly, our sample period starts from 2014 and we focus on firms that used IFRS in 2014.

⁴ Please note that among all UK private firms with accounting standard information, the percentage of IFRS users and that of UK GAAP users in 2014 are 4.57% and 95.43%, respectively.

 Insert Table 1 about here

4. Methodology

Our methodology principally follows the methodology applied in previous studies concerning audit fees and IFRS adoption (De George *et al.*, 2013; Kim *et al.*, 2012). Our first objective is to determine whether the decision to switch from IFRS to New UK GAAP is associated with audit fees. We examine this issue by regressing the natural logarithm of the audit fee on the change in accounting standards (i.e., from IFRS to New UK GAAP), as shown in Model 1 below.

Model 1:

$$\begin{aligned}
 FEE = & \beta_0 + \beta_1 CHGACCT + \beta_2 SIZE + \beta_3 BIG4 + \beta_4 DEBT \\
 & + \beta_5 QUICK + \beta_6 ROA + \beta_7 LOSS + \beta_8 RECINV + \beta_9 SEG \\
 & + \beta_{10} SUB + \beta_{11} MAJOR + \sum d_j INDUSTRY + \sum r_j YEAR + \varepsilon
 \end{aligned}$$

The dependent variable is the natural logarithm of the total audit fee (*FEE*). The independent variable (*CHGACCT*) is a dummy variable that equals one if a firm opts to switch from IFRS to New UK GAAP during the period 2015–2019 and equals zero otherwise. Specifically, if a firm adopted New UK GAAP from 2015, *CHGACCT* is equal to one from 2015 to 2019. If a firm

adopted New UK GAAP from 2016. Then, *CHGACCT* is equal to one from 2016 to 2019 and zero for 2015. If a firm adopted New UK GAAP from 2017. Then, *CHGACCT* is equal to one from 2017 to 2019 and zero for both 2015 and 2016. The values of *CHGACCT* for 2018 and 2019 are similarly determined.

As for control variables, we include *SIZE*, which is the natural logarithm of the total assets, because audit fees are heavily affected by client size (Kim *et al.*, 2012). We include *BIG4* to capture a Big 4 auditor fee premium (Choi *et al.*, 2008; DeFond *et al.*, 2000; Goncharov *et al.*, 2014; Lin & Yen, 2016). *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG or PricewaterhouseCoopers, and zero otherwise. *DEBT*, the long-term debts divided by the total assets, is included to account for the positive impact of the client solvency risk on audit fees (De George *et al.*, 2013; DeFond *et al.*, 2000; Goncharov *et al.*, 2014; Kim *et al.*, 2012). *QUICK*, *ROA* and *LOSS* are included to measure the client-specific litigation risks that are positively associated with the audit risk and the audit fees (De George *et al.*, 2013; DeFond *et al.*, 2000; Goncharov *et al.*, 2014; Kim *et al.*, 2012). *QUICK* is the ratio of current assets to current liability. *ROA* is defined as the earnings before non-recurring items divided by the total assets. *LOSS* is a dummy variable equal to one when firms have negative net income, while it is equal to zero otherwise.

In addition, we include *RECINV* because higher amounts of receivables and inventory are associated with a higher risk of errors (De George *et al.*, 2013; Goncharov *et al.*, 2014). *RECINV* is defined as the sum of the accounts receivable and inventory divided by the total assets. As audit

efforts are expected to be higher for firms with more complex operations, *SEG* and *SUB* are also included (De George *et al.*, 2013; Goncharov *et al.*, 2014). *SEG* is the natural logarithm of the value one plus the number of total segments, and *SUB* is the natural logarithm of the value one plus the number of total subsidiaries. Moreover, we include *MAJOR* because private firms often have a higher ownership concentration (Matonti & Iuliano, 2012). Firms with large shareholders may be associated with higher (due to higher-quality accounting information) or lower audit fees (due to enhanced monitoring and lower audit risk; Mitra *et al.*, 2007). *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50%, while it takes the value of zero otherwise. Finally, we control for the industry classification and time period because the audit fee is adjusted according to the complexity per industry and per year (De George *et al.*, 2013).

We next examine whether the change in audit fees caused by the switch from IFRS to New UK GAAP differs between larger firms and smaller firms using Model 2. To examine the role played by firm size, we create a dummy variable, *DSIZE*, whose value is one (zero) for firms with a firm size above (below) the median value. We then include the interaction term, *CHGACCT*DSIZE*, and *DSIZE*. The control variables in Model 2 are the same as those defined in relation to Model 1.

Model 2:

$$\begin{aligned}
FEE = & \beta_0 + \beta_1 CHGACCT + \beta_2 CHGACCT * DSIZE + \beta_3 DSIZE \\
& + \beta_4 BIG4 + \beta_5 DEBT + \beta_6 QUICK + \beta_7 ROA + \beta_8 LOSS \\
& + \beta_9 RECINV + \beta_{10} SEG + \beta_{11} SUB + \beta_{12} MAJOR \\
& + \sum d_j INDUSTRY + \sum r_j YEAR + \varepsilon
\end{aligned}$$

In addition to the regression analyses, we download the financial reports of two UK private firms from Companies House. One of these firms is a medium-sized firm, while the other is a large firm. Both firms used IFRS prior to 2015 but then switched to New UK GAAP. By examining the financial reports prepared under IFRS and New UK GAAP, we aim to understand how the switching of accounting standards influences firms' financial reporting.

Furthermore, we estimate a change model to control for the effects of time-trend and unobservable changes in firm characteristics (De George *et al.*, 2013). We also employ a DID design (Kim *et al.*, 2012) to assess the overall effect of the switch from IFRS to New UK GAAP on audit fees (H1a and H1b), using non-switching firms (i.e., those continue to apply IFRS) as the benchmark. The DID is designed to control for general trends unrelated to the choice of accounting standards or concurrent changes that may be experienced by the non-switching firms.

5. Empirical results

5.1 Descriptive statistics

All of the descriptive statistics are reported in Table 1. In our sample, 37.6% of firm-year

observations (i.e., 43.8% of 1,602 sampled firms) switched from IFRS to New UK GAAP, which suggests that many firms that previously voluntarily adopted IFRS may find New UK GAAP more attractive. This rate of turning away from IFRS is much higher than that (i.e., 2.3%) seen in Raffournier and Schatt's (2018) study on Swiss listed companies. The lower transition costs due to the higher convergence of New UK GAAP with IFRS, as well as the lower pressure to reduce information asymmetry through financial reporting facing private firms than public firms (Bassemir, 2018), (and, therefore, the less negative impact of the switch to New UK GAAP) may explain why the rate of UK private firms turning away from IFRS is much higher.

In addition, the average audit fees of the sample firms are around £52,572. In terms of the firm size, the average value of the total assets is around £121.762 million. The presence of Big 4 auditors is common, with 62.6% of the sample firms hiring a Big 4 auditor. Furthermore, 33.7% of the firm observations indicate operating losses. Although not shown directly in Table 1, approximately 33.1% of the sample firms do not have any subsidiaries.

We further divide the entire sample into two subsamples: (1) firms switching from IFRS to New UK GAAP and (2) firms continuing to apply IFRS. As reported in Panels C and D of Table 1, audit fees, client solvency risk (see *DEBT*), and the number of subsidiaries are lower in firms which switch from IFRS to New UK GAAP. These switching firms also have higher current ratios (see *QUICK*) and are more likely to be audited by a Big 4 auditor, compared with firms which continue to apply IFRS. Panel E of Table 1 further examines and shows the differences, in mean and median,

between the subsamples in Panels C and D. Since these two subsamples show the difference in several variables, later in our empirical analyses, we will use matching techniques to control for potential bias.

5.2 *Correlation matrices*

Table 2 shows the Spearman rank correlation coefficients (figures above the diagonal) and the Pearson product-moment correlation coefficients (figures below the diagonal) between the variables in our models. *FEE* and *SIZE* are highly correlated, with a correlation coefficient of 0.69. This indicates that larger firms often have higher audit fees than smaller firms. Moreover, the correlation matrices do not reveal significant associations between some of the control variables, which suggests that multicollinearity is not a severe problem in the models.

Insert Table 2 about here

5.3 *Multiple regressions*

Table 3 presents the results of estimating Models 1 and 2. As reported in the third column (Model 1) of Table 3, the coefficient of *CHGACCT* is significant and negative ($\beta_1 = -0.262$, $t = -7.16$), indicating that the switch from IFRS to New UK GAAP results in lower audit fees. More specifically, the result suggests that switching firms experience an average 23.05% decrease in audit

fees.⁵ This finding lends support to H1b, although it differs from the finding of Raffournier and Schatt (2018) that the switch from IFRS to Swiss GAAP does not lower audit fees. This difference may be because New UK GAAP more closely converges with IFRS than Swiss GAAP, resulting in smaller changes in financial reporting and, therefore, less audit effort being required to deal with the changes following the change of accounting standards (Miah *et al.*, 2020). Furthermore, unlike the listed firms studied by Raffournier and Schatt (2018), private firms face less pressure to reduce information asymmetry through financial reporting (Bassemir, 2018). Hence, the switch from IFRS to local GAAP may not significantly increase the audit risk for private firms when compared with public firms. In this situation, the simplified regulations and reduced disclosures contained within New UK GAAP effectively help to reduce audit fees (Deloitte, 2019; FRC, 2018a, 2018b). Particularly, the average audit fee for private firms that stick to the UK GAAP over our sample period increased by £23,750. Our results clearly show the benefit (i.e., reduced audit fees) of the switch to New UK GAAP. This finding supports the FRC's argument that New UK GAAP can help to reduce financial reporting costs, and confirms the descriptive results of Fiechter *et al.* (2018) which show that turning away from IFRS to local GAAP reduces audit fees

We further examine the effect of firm size on the relation between audit fees and the changing of accounting standards. We partition the sample based on cutoffs at the median for *SIZE* and conduct regressions with an indicator variable (*DSIZE*) whose value is one (zero) for firms above (below)

⁵ The percentage change in audit fees can be obtained by applying $\exp(\beta_i) - 1$.

the median value. As reported in the fourth column of Table 3 (Model 2), the coefficients for *CHGACCT* and *CHGACCT*DSIZE* are both significant and negative. The coefficient on *CHGACCT* ($\beta_1 = -0.180$, $t = -3.68$) is specifically for smaller firms and the result suggests that smaller firms choosing to switch to New UK GAAP experience an average 16.47% decrease in audit fees. The coefficient of *CHGACCT*DSIZE*, which captures the incremental audit fee effect for larger firms that turn away from IFRS, is negative and significant ($\beta_2 = -0.209$, $t = -2.70$). The coefficient for larger firms can be computed by adding the coefficient on *CHGACCT* for smaller firms and the coefficient on the interaction variable, *CHGACCT*DSIZE*, and therefore equals -0.389 ($= -0.180 - 0.209$). This result suggests that larger firms choosing to switch to New UK GAAP experience an average 32.22% decrease in audit fees.⁶ Therefore, after the switch from IFRS to New UK GAAP, the fee decrease for larger firms is on average 15.75% ($= 32.22\% - 16.47\%$) greater than that for smaller firms. These results are consistent with our H2 that the impact of the switch from IFRS to New UK GAAP on audit fees is different between larger and smaller firms.

These results show that, overall, firms experience reductions in their audit fees following the switch from IFRS to New UK GAAP, with larger firms enjoying additional reductions in their audit fees when compared with smaller firms. This may be because smaller firms tend to issue shorter and simpler financial reports than larger firms. Therefore, when switching from IFRS to New UK GAAP, smaller firms may not experience as much of a reduction in the disclosure level as larger

⁶ The percentage change in audit fees can be obtained by applying $\exp(\beta_1 + \beta_2) - 1$.

firms and may not experience as much of a benefit from the disclosure exemptions. Another explanation would be that larger firms with more complicated financial reporting are more likely to enjoy the benefit of simplified regulations under New UK GAAP than smaller firms whose financial reporting tends to be simpler with fewer accounting items being relevant (Sian & Roberts, 2009). Therefore, the greater reduction in the complexity of financial reporting for larger firms results in greater reduction in audit fees for these firms following the switch from IFRS to New UK GAAP.

Insert Table 3 about here

In addition, the coefficients on *BIG4* are significantly positive in both Models 1 and 2. This finding is consistent with that of prior studies (Kim *et al.*, 2012) that Big 4 auditors often charge a higher audit fee than non-Big 4 auditors. Consistent with our prediction concerning the signs of the control variables, the results also show that audit fees are positively related to client-specific litigation risks (i.e., when the net income is negative [see *LOSS*] or when the liquidity, *QUICK*, is lower), client complexity (see *RECINV*), complex operations (i.e., when there are more subsidiaries [see *SUB*]) and the ownership concentration (see *MAJOR*).

5.4 Real examples of financial reports

As discussed during the hypothesis development (see Section 2.3), we argue that the reduced

disclosures and simplified regulations contained within New UK GAAP may result in lower audit fees. In Section 5.3, we show that the adoption of New UK GAAP significantly reduces firms' audit fees. In the present section, we will examine real examples of financial reports to determine whether and, if so, how the adoption of New UK GAAP reduces firms' disclosure level.

The first example firm is Augean North Sea Services Limited (ANSS Ltd), a UK medium-sized private firm that was incorporated in 2012. Its main business involves collecting and disposing of waste. It used IFRS from 2012 to 2015 but then adopted FRS 101 (part of New UK GAAP) from 2016. This company stated in its 2016 financial report that 'This transition [from IFRS to FRS 101] resulted in reduced disclosures' (ANSS Ltd, 2017, p. 12). It also stated that 'In preparing these financial statements, the Company has taken advantage of the disclosure exemptions conferred by FRS 101' (ANSS Ltd, 2017, p. 12). In the following paragraphs, we will look at several exemptions that ANSS Ltd indicated and analyze how the exemptions affected the company's financial reporting by comparing its 2015 and 2016 financial reports.

First, in terms of the exemptions for the statement of cash flows under FRS 101, ANSS Ltd did not provide this statement in 2016. However, this statement was provided in 2015, when the company used IFRS. The exemption concerning the comparative period reconciliations of property, plant and equipment (PPE) under FRS 101 also resulted in the company only reporting one-year results for PPE in 2016, while it reported two-year results for PPE in 2015.

Furthermore, applying the exemption regarding the disclosure of financial instruments under

FRS 101, ANSS Ltd only briefly explained its accounting policies for financial instruments in 2016, unlike the additional five pages of notes it provided in this regard in 2015. Moreover, information concerning related party transactions was disclosed (one full page information) in 2015, although such information was exempted by FRS 101 and, therefore, not disclosed in 2016. Information on the new IFRS standards that have not yet become effective was provided in 2015 but not in 2016.

The case of ANSS Ltd demonstrates how the switch from IFRS to New UK GAAP reduced the level of disclosure, as echoed in the company's statements quoted above. The reduced disclosure may explain the lower audit fee following the switch to New UK GAAP. The discussion regarding ANSS Ltd is summarized in Appendix.

A similar situation in terms of taking advantage of the reduced disclosure level under the New UK GAAP can also be seen in relation to other companies. For example, Hope Cement Limited, a large manufacturer, switched from IFRS to New UK GAAP in 2016. In its 2016 financial report, Hope Cement Limited also mentioned that it took advantage of the disclosure exemptions available under FRS 101, including not providing the statement of cash flow and related notes, in addition to not showing comparative period reconciliations for intangible assets and PPE. The other exemptions used by this company include disclosures regarding transactions with wholly owned subsidiaries, compensation of key management personnel, new IFRS standards that have not yet become effective, capital management, financial instruments and fair value measurement. These exemptions may explain why Hope Cement Limited's audit fee in 2016 was reduced, from

£210,000 in 2015, to £80,000.

The above-mentioned cases suggest that the switch from IFRS to New UK GAAP can effectively reduce the disclosure level, which in turn results in lower audit fees. Following the switch from IFRS to New UK GAAP, the reduction in the audit fee (£130,000 or 62%) seen for Hope Cement Limited, a large firm, is also greater than the reduction (£1,000 or 8%) seen for ANSS Ltd, a medium firm. Consistent with our discussion on the economic effect of the switch from IFRS to New UK GAAP on audit fees, the results indicate that larger firms enjoy additional reductions in their audit fees following the switch to New UK GAAP when compared with smaller firms. Overall, these findings echo the main results from estimating Models 1 and 2 in Table 3.

5.5 Robustness analysis

5.5.1 Change model analysis

In this section, we convert Model 1 into a change model, the purpose of which is to control for the effects of time-trend and unobservable changes in firm characteristics (De George *et al.*, 2013).⁷

Untabulated results show that the switch from IFRS to New UK GAAP is significantly negatively related to audit fees, supporting H1b and consistent with our earlier findings.

We further partition the sample into two groups, namely larger firms and smaller firms, based

⁷ The change model is shown below:

$$\begin{aligned} \Delta FEE = & \beta_0 + \beta_1 CHGACCT + \beta_2 \Delta SIZE + \beta_3 BIG4 + \beta_4 \Delta DEBT + \beta_5 \Delta QUICK + \beta_6 \Delta ROA \\ & + \beta_7 LOSS + \beta_8 \Delta RECINV + \beta_9 SEG + \beta_{10} SUB + \beta_{11} MAJOR \\ & + \sum d_j INDUSTRY + \sum r_j YEAR + \varepsilon \end{aligned}$$

The prefix Δ in the change model indicates that the variables are measured as the difference between periods t-1 and t. The definitions of level variables are the same as in relation to Model 1. *CHGACCT* variable here is used to estimate the changes in audit fees if firms choose to switch from IFRS to New UK GAAP.

on the median of *SIZE*. Similar to the findings shown in Table 3, we find that larger firms are more likely than smaller firms to enjoy the benefits of lower audit fees following the switch from IFRS to New UK GAAP. Specifically, the coefficient of *CHGACCT* for larger firms is negative and significant, while it is insignificant for smaller firms. We use the Chow test to further examine whether the audit fee equation for larger firms is different from that for smaller firms. We reject the null hypothesis based on the Chow test results ($p\text{-value} = 0.01$) and show that the audit fee equations are significantly different for larger and smaller firms. The results help to support our earlier findings that larger firms experience a greater audit fee decrease after the switch from IFRS to New UK GAAP.

This may be because smaller firms have shorter and simpler financial reports, and they may not benefit as much from disclosure exemptions and simplified regulations under New UK GAAP as larger firms. Similar to Raffournier and Schatt's (2018) finding that smaller firms' audit fees do not significantly change after the switch from IFRS to Swiss GAAP, we also identify the stickiness of audit fees in relation to smaller firms. Different from Raffournier and Schatt (2018) showing that the switch from IFRS to Swiss GAAP results in higher audit fees for larger listed firms (due to higher audit risk), we find lower audit fees after larger UK private firms switch from IFRS to UK GAAP. We argue that less audit effort required in the UK after the switch due to the smaller difference between New UK GAAP and IFRS, and less pressure on private firms to reduce information asymmetry through financial reporting (hence making the switch less risky) may

explain the differences in results.

5.5.2 *Self-selection bias, excluding financial institutions, and additional control for intangible assets*

We further conduct several additional tests in this section. Firstly, we employ the two-stage Heckman (1979) procedure to correct the potential self-selection bias related to the decision to switch from IFRS to New UK GAAP.⁸ Secondly, we exclude financial institutions from the sample and then re-estimate Models 1 and 2.⁹ Thirdly, we conduct regressions with additional control for intangible assets.¹⁰ The results from these tests (untabulated) are again consistent with our main findings in Table 3.

5.5.3 *A Difference-in-Differences (DID) design*

This section uses the DID method (Kim *et al.*, 2012) to analyze the association between the switch from IFRS to New UK GAAP and audit fees, to confirm the robustness of our main findings. We match firms that switch from IFRS to New UK GAAP with firms that continue to use IFRS (and those persistent IFRS users are treated as the control group). We follow Beasley (1996) and

⁸ Following the approach of Bassemir (2018) and Matonti and Iuliano (2012), we establish the following first-stage model which estimates the determinants of firms' decision to switch from IFRS to New UK GAAP to obtain the inverse Mills ratio (*IMR*). *GROWTH* is the annual growth rate of sales. We assume that *GROWTH* is correlated with *CHGACCT*, but not with *FEE*. All of other variables are as defined in Table 1. At the second stage, the *IMR* is included to re-estimate Models 1 and 2.

$$\text{CHGACCT} = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{BIG4} + \beta_3 \text{DEBT} + \beta_4 \text{ROA} + \beta_5 \text{MAJOR} \\ + \beta_6 \text{GROWTH} + \sum d_j \text{INDUSTRY} + \sum r_j \text{YEAR} + \varepsilon$$

⁹ This is because financial institutions are subject to different regulations than other firms, and they may have different considerations when choosing accounting standards.

¹⁰ Prior studies indicate that the IFRS requirement for intangible assets is a major source of audit complexity (De George *et al.*, 2013). The requirements for intangible assets within New UK GAAP and IFRS also differ (PWC, 2013b). Given that audit fees may vary on the basis of clients' intangible assets, we additionally control for intangible assets.

Carcello and Nagy (2004) to match switching firms with non-switching firms, on year, industry and size.¹¹ Our final sample size was 2,620 (1,310 switching observations, and 1,310 matched non-switching observations). We then use the matched sample to estimate the following DID model (i.e., Model 3).

Model 3:

$$\begin{aligned}
 FEE = & \beta_0 + \beta_1 POST + \beta_2 POST * SWITCH + \beta_3 SIZE + \beta_4 BIG4 \\
 & + \beta_5 DEBT + \beta_6 QUICK + \beta_7 ROA + \beta_8 LOSS + \beta_9 RECINV + \beta_{10} SEG \\
 & + \beta_{11} SUB + \beta_{12} MAJOR + \varepsilon
 \end{aligned}$$

The design of Model 3 is based on our main Model 1 and Kim *et al.* (2012), and all the exogenous variables in Model 3 are the variables in Model 1. Since we match switching firms with non-switching firms for a given industry and year, we already control for the potential effect of differences in time periods and industries. We thus did not include year and industry fixed effects in Model 3. We include *POST* and the interaction term *POST*SWITCH* in Model 3. *POST* equals one for the post-New UK GAAP period from 2015 to 2019, and zero for the pre-New UK GAAP period for 2014. *SWITCH* equals one if firms select to switch from IFRS to New UK GAAP during 2014-2019, and zero otherwise. The coefficient β_1 captures the audit fee change for non-switching firms

¹¹ For the match on industry, following Grullon and Michaely (2004), we identify non-switching firms with the same two-digit SIC code as the switching firms. If we cannot find a matched non-switching firm with the same two-digit SIC code as the switching firm, we ease the SIC code restriction to one-digit. We also match firms on size, based on total assets. The total assets of each non-switching firm should be within 30% of the amount of the corresponding switching firm's total assets.

in the control sample from the pre-New UK GAAP period to the post-New UK GAAP period. The coefficient of interest is β_2 , which captures the incremental change in audit fees from the pre-New UK GAAP period to the post-New UK GAAP period in the switching sample relative to the change in the control sample. As shown in Table 4, the coefficient of *POST* is positive and significant. This suggests that non-switching firms in the control sample experience an average 15.49% increase in the audit fees from the pre-New UK GAAP period to the post-New UK GAAP period. The coefficient of *POST*SWITCH*, which captures the incremental fee-decreasing effect associated with a turn away from IFRS in the switching sample, is significantly negative ($\beta_2 = -0.287$, $t = -7.21$). These results suggest that a firm that turns away from IFRS experiences an average 13.32% decrease in audit fees during the post-New UK GAAP period.¹² The results are consistent with H1b and our main findings and suggest that the switch from IFRS to New UK GAAP is associated with lower audit fees.

Insert Table 4 about here

¹² The percentage change in audit fees from the pre-New UK GAAP to the post-New UK GAAP period in the switching group can be obtained by applying $\exp(\beta_1 + \beta_2) - 1$.

5.5.4 *Coarsened exact matching and firm-level matching*

Coarsened exact matching (CEM) is a design for improving the estimation of causal effects via a powerful method of matching that is widely applicable in observational data (Blackwell *et al.*, 2009). We implement the CEM for the DID analysis and the untabulated results are again consistent with our main findings in Table 3.

Concerning that it is a firm-level decision to switch from IFRS to New UK GAAP, we alternatively change the matching approach from the firm-year level to the firm level. Our final sample size was 1,566 (783 switching observations, and 783 matched non-switching observations) when we conduct the matching at the firm level. We aim to re-estimate Model 3 but replace the *SWITCH* with *SWITCH_F* and control for the year and industry fixed effects. *SWITCH_F* is defined at the firm level and is set to one for firms that switch from IFRS to New UK GAAP during 2014-2019. As reported in Table 5, the results based on the firm-level matching are consistent with those based on the firm-year matching.

Insert Table 5 about here

5.5.5 *Three-stage least squares (3SLS)*

Concerning that some factors may affect audit fees and the decision to switch from IFRS to New UK GAAP at the same time, the relation between audit fees and accounting standard choices may

be endogenous. To mitigate the potential endogeneity bias, we jointly estimate the previous Models 3 (DID model) and 4 using the three-stage least squares (3SLS) method (Lapointe-Antunes *et al.*, 2006).

Model 4:

$$SWITCH = \beta_0 + \beta_1 FEE + \beta_2 MAJOR + \beta_3 SIZE + \beta_4 GROWTH \\ + \beta_5 DEBT + \beta_6 ROA + \varepsilon$$

Fiechter *et al.* (2018) examine the determinants of a turn away from IFRS using a setting of Swiss listed companies. They find that insider ownership, firm size, growth, leverage, and profitability are associated with accounting standard choices. Following Fiechter *et al.* (2018), the exogenous variables, except for *FEE*, included in Model 4 are *MAJOR*, *SIZE*, *GROWTH*¹³, *DEBT*, and *ROA*. The results (in Table 6) using the 3SLS method are again consistent with main findings in Table 3.

 Insert Table 6 about here

5.5.6 *Short-term or long-term effects*

For the results of DID design reported in Table 4, the post-New UK GAAP period is over a five-year horizon from 2015 to 2019. When we shorten the post-New UK GAAP period to only one year

¹³ We assume that *GROWTH* is correlated with *SWITCH*, but not with *FEE*.

(i.e., 2015) to examine the short-term effect of the switch from IFRS to New UK GAAP on firms' audit fees, the results in Table 7 are consistent with our earlier findings and suggest that the switch is associated with lower audit fees in a short-term period. Our results in Table 7 and Table 4 lend support to both short-term and long-term effects of the switch to the new UK GAAP on audit fees.

Insert Table 7 about here

6. Conclusions

The FRC introduced New UK GAAP in 2015 in an attempt to provide an accounting standard that is consistent with IFRS but less costly to implement (Deloitte, 2019). From 2015, 43.8% of the sampled UK private firms (which account for 37.6% of total firm-year observations) that were once voluntary adopters of IFRS switched to New UK GAAP. This high switch rate motivates this study to examine whether the switch offers benefits to firms in terms of their audit fees. Based on data for the sample period from 2014 to 2019, we find that the decision to switch from IFRS to New UK GAAP significantly reduces companies' audit fees. Moreover, larger firms that choose to switch from IFRS to New UK GAAP experience additional reductions in their audit fees when compared with smaller firms. The findings of the robustness tests are consistent with our main findings.

Interestingly, our findings differ from Raffournier and Schatt's (2018) findings that Swiss listed firms that switch from IFRS to Swiss GAAP do not experience a reduction in their audit fees. The

high degree of convergence between New UK GAAP and IFRS, as well as the lower pressure to reduce agency costs through financial reporting on the part of private firms, may explain the discrepancies between our findings and the findings of Raffournier and Schatt (2018). In addition, the results we derive from examining real examples of firms' financial reports further indicate that firms do take advantage of the disclosure exemptions within New UK GAAP and their disclosure level is reduced following the switch from IFRS to New UK GAAP. Overall, our results support the FRC's argument that New UK GAAP, helping to reduce the disclosure level and the financial reporting costs, is a more cost-effective accounting standard than IFRS.

This paper contributes to the accounting literature by providing evidence concerning private firms' financial reporting, which has typically been ignored in prior research, and by further establishing the costs and benefits of IFRS through analyzing firms that have experience of using IFRS. In particular, through demonstrating high audit fees to be part of the cost associated with the use of IFRS, this paper helps to fill a research gap regarding the cost of using IFRS (Christensen, 2012; Raffournier & Schatt, 2018). To the best of our knowledge, this study is the first to analyze how private firms' decision to turn away from IFRS affects their audit fees. Different from Raffournier and Schatt (2018) who fail to find lower audit fees after Swiss listed companies switch from IFRS to Swiss GAAP (and larger firms even have higher audit fees after the switch), we show that UK private firms experience lower audit fees following the switch from IFRS to UK GAAP. One potential reason is that private firms have less pressure than public companies to reduce agency

costs through financial reporting (Bassemir, 2018). Our results show the difference between public and private firms and extends the literature on IFRS and audit fees.

Our study is also the first to investigate the effect of firm size on the relationship between abandoning IFRS and audit fees in a private firm setting. Different from Raffournier and Schatt (2018) who show that larger listed companies experience a greater increase in audit risk and audit fees after the switch from IFRS to Swiss GAAP, our results suggest that audit risk is not significantly increased following the switch from IFRS to New UK GAAP and larger UK private firms enjoy a greater decrease in audit fees than smaller firms. Thus, our research extends the current literature, which tends to use public firm data, on IFRS adoption and audit fees.

This paper also has several important implications for policy. For example, the findings show that using IFRS may still prove burdensome in terms of audit fees for UK private firms that voluntarily chose to adopt IFRS. Even though Anglo-American countries like the UK heavily influence the design of IFRS (Shan & Troshani, 2016), our results and earlier empirical evidence on higher audit fees following the IFRS adoption by UK listed companies (Khlif & Achek, 2016) suggest that standard setters should really try to reduce the costs associated with the adoption of IFRS to encourage more voluntary IFRS adoptions. Furthermore, New UK GAAP appears to have been welcomed by UK private firms because it is consistent with IFRS but requires a lower level of disclosure than full IFRS. Thus, reduced or simplified IFRS financial reporting frameworks, such as New UK GAAP or IFRS for SMEs, could represent a useful alternative for helping standard setters

to achieve their goals (e.g., accounting convergence). The reduced audit fees after the switch from IFRS to New UK GAAP, documented in our study, also suggest that audit risk is not substantially increased after the switch, implying that a reduced IFRS framework may function properly in a well-established accounting and auditing environment, even if litigation risk of auditors is high (such as the situation in the UK) (Cameran & Perotti, 2014).

Additionally, consistent with FRC's claim, our results show that New UK GAAP helps to reduce the costs of financial reporting. Our results further show that larger firms have a greater cost saving (in terms of audit fees) after the switch from IFRS to New UK GAAP. However, previous literature indicates that compared with larger firms, smaller firms tend to find adopting IFRS costly (De George *et al.*, 2013). Therefore, it is crucial that reduced IFRS frameworks, such as New UK GAAP and IFRS for SMEs, help to reduce financial reporting costs, particularly for smaller firms. Our results suggest there is room for improvement in the design of accounting standards. For example, regulators may further look at which accounting items and rules are most relevant to smaller firms whose financial reporting tends to be simpler with fewer accounting items and rules being relevant, and carefully revise these regulations in order to further reduce financial reporting costs of these firms.

Our results derived from private firms will also be helpful for public companies in evaluating different accounting standards, such as the UK listed companies which can use New UK GAAP or IFRS for their individual accounts. For example, our study documents the reduced audit fees

(implying audit risk is not significantly increased) after the switch from IFRS to New UK GAAP.

UK listed companies which would like to reduce costs may find New UK GAAP attractive. Since the high adoption costs of IFRS are documented worldwide and many countries are considering the adoption of IFRS for SMEs or use it to develop their own versions of reduced IFRS framework (such as China), our results will be useful for policy makers in the UK and in other countries. Our results are based on the UK data, and future research may examine whether our results hold using data from other countries.

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Appendix: Comparison of Financial Reports before and after Switch to New UK GAAP (Augean North Sea Services Limited)

	2015	2016
Financial reporting standards	IFRS	New UK GAAP (FRS 101)
Audit fees	£12,000	£11,000
Examples for Exemptions of FRS 101 indicated by this firm		
Statement of cash flow	Presented	Not presented
Comparative period reconciliations of PPE	Presented (hence two-year result was presented)	Not presented (hence only one-year result was presented)
Financial instruments	5-page notes	No additional notes
Related party transactions	Disclosed	Not disclosed
New IFRS standards which have not become effective	Disclosed	Not disclosed

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Table 1. Sample and descriptive statistics

Panel A: Sample selection

Initial sample (i.e., all observations which were IFRS users in 2014)	4,640
Subtract:	
Firm-year observations without disclosing the chosen accounting standard	449
Firm-year observations with missing audit fee data	269
Firm-year observations lacking financial data	461
	3,461

Panel B: Descriptive statistics (N=3,461)

	Mean	S.D.	Q1	Median	Q3
<i>FEE</i>	3.962	1.554	2.824	3.883	5.030
<i>CHGACCT</i>	0.376	0.484	0.000	0.000	1.000
<i>SIZE</i>	11.710	2.160	10.141	11.539	13.232
<i>BIG4</i>	0.626	0.484	0.000	1.000	1.000
<i>DEBT</i>	0.379	0.469	0.052	0.236	0.549
<i>QUICK</i>	1.923	2.992	0.766	1.213	1.903
<i>ROA</i>	-0.383	19.164	-2.019	1.905	6.297
<i>LOSS</i>	0.337	0.473	0.000	0.000	1.000
<i>RECINV</i>	0.211	0.256	0.017	0.097	0.333
<i>SEB</i>	1.129	0.456	0.693	1.099	1.386
<i>SUB</i>	1.119	1.144	0.000	0.693	1.792
<i>MAJOR</i>	0.776	0.417	1.000	1.000	1.000

Panel C: The subsample of firms switching from IFRS to New UK GAAP (N=1,301)

	Mean	S.D.	Q1	Median	Q3
<i>FEE</i>	3.665	1.533	2.693	3.596	4.605
<i>SIZE</i>	11.507	1.943	10.135	11.294	12.827
<i>BIG4</i>	0.676	0.468	0.000	1.000	1.000
<i>DEBT</i>	0.342	0.423	0.051	0.215	0.475
<i>QUICK</i>	2.320	3.904	0.782	1.255	2.069
<i>ROA</i>	-0.030	18.029	-1.167	1.968	6.333
<i>LOSS</i>	0.327	0.469	0.000	0.000	1.000
<i>RECINV</i>	0.218	0.263	0.016	0.108	0.353
<i>SEG</i>	1.138	0.468	0.693	1.099	1.386
<i>SUB</i>	1.001	1.063	0.000	0.693	1.609
<i>MAJOR</i>	0.781	0.414	1.000	1.000	1.000

Panel D: The subsample of firms continuing to apply IFRS (N=2,160)

	Mean	S.D.	Q1	Median	Q3
<i>FEE</i>	4.141	1.540	2.952	4.118	5.224
<i>SIZE</i>	11.832	2.273	10.156	11.669	13.424
<i>BIG4</i>	0.597	0.491	0.000	1.000	1.000
<i>DEBT</i>	0.401	0.493	0.052	0.252	0.587
<i>QUICK</i>	1.684	2.241	0.753	1.186	1.798
<i>ROA</i>	-0.596	19.818	-2.506	1.873	6.179
<i>LOSS</i>	0.343	0.475	0.000	0.000	1.000
<i>RECINV</i>	0.207	0.252	0.018	0.092	0.324
<i>SEG</i>	1.124	0.450	0.693	1.099	1.386
<i>SUB</i>	1.190	1.185	0.000	1.099	1.792
<i>MAJOR</i>	0.773	0.419	1.000	1.000	1.000

Panel E: The difference between subsamples in Panels C and D

	Difference in Mean	Difference in Median
<i>FEE</i>	-0.476 ***	-0.522 ***
<i>SIZE</i>	-0.324 ***	-0.375 ***
<i>BIG4</i>	0.079 ***	0.000 ***
<i>DEBT</i>	-0.058 ***	-0.037 ***
<i>QUICK</i>	0.637 ***	0.068 ***
<i>ROA</i>	0.566	0.095
<i>LOSS</i>	-0.016	0.000
<i>RECINV</i>	0.011	0.016
<i>SEG</i>	0.014	0.000
<i>SUB</i>	-0.189 ***	-0.405 ***
<i>MAJOR</i>	0.008	0.000

This table has five parts: Panel A describes the sample selection process, Panel B presents the descriptive statistics for the entire sample, Panel C shows the descriptive statistics for the subsample of firms switching from IFRS to New UK GAAP, Panel D shows the descriptive statistics for the subsample of firms continuing to apply for IFRS, and Panel E examines the differences, in mean and median, between subsamples in Panels C and D. *FEE* is the natural logarithm of audit fees. *CHGACCT* is a dummy variable equal to one if firms select to switch from IFRS to New UK GAAP during 2015-2019, and zero otherwise. *SIZE* is the natural logarithm of total assets. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEG* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of

one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise. ***, **, * denote significance at the 0.01, 0.05 and 0.1 levels respectively (two-tailed), based on the results of testing (a t-test or Wilcoxon Rank Sums test) whether the firm characteristics between the two subsamples (i.e., the subsamples shown in Panel C and Panel D) are different.

Table 2. Correlation matrices

	<i>FEE</i>	<i>CHGACCT</i>	<i>SIZE</i>	<i>BIG4</i>	<i>DEBT</i>	<i>QUICK</i>	<i>ROA</i>	<i>LOSS</i>	<i>RECINV</i>	<i>SEB</i>	<i>SUB</i>	<i>MAJOR</i>
<i>FEE</i>		-0.14	0.69	0.32	-0.14	-0.07	0.01	-0.03	0.21	0.11	0.57	0.32
<i>CHGACCT</i>	-0.15		-0.07	0.08	-0.05	0.05	0.02	-0.02	0.00	0.01	-0.07	0.01
<i>SIZE</i>	0.69	-0.07		0.39	0.03	-0.10	0.03	-0.13	-0.15	0.16	0.44	0.33
<i>BIG4</i>	0.30	0.08	0.38		0.00	0.00	0.06	-0.08	-0.02	0.03	0.14	0.20
<i>DEBT</i>	-0.14	-0.06	-0.10	-0.04		-0.02	-0.26	0.16	-0.36	-0.04	-0.19	-0.09
<i>QUICK</i>	-0.13	0.10	-0.06	0.00	0.04		0.21	-0.16	0.12	-0.04	0.00	0.00
<i>ROA</i>	0.04	0.01	0.13	0.05	-0.36	0.04		-0.82	0.09	-0.01	0.04	0.09
<i>LOSS</i>	-0.04	-0.02	-0.14	-0.08	0.20	-0.04	-0.55		-0.02	0.01	-0.05	-0.09
<i>RECINV</i>	0.11	0.02	-0.12	-0.03	-0.21	0.00	0.00	-0.02		0.02	0.12	0.09
<i>SEB</i>	0.07	0.01	0.14	0.04	-0.08	-0.03	0.03	0.01	0.05		0.14	0.01
<i>SUB</i>	0.57	-0.08	0.46	0.15	-0.20	-0.05	0.05	-0.05	0.02	0.11		0.20
<i>MAJOR</i>	0.30	0.01	0.33	0.20	-0.09	-0.01	0.08	-0.09	0.07	0.00	0.20	

Numbers above the diagonal represent Spearman rank correlations while those below the diagonal are Pearson correlations. Bold text indicates significance at the 0.1 level or better (two-tailed). *FEE* is the natural logarithm of audit fees. *CHGACCT* is a dummy variable equal to one if firms select to switch from IFRS to New UK GAAP during 2015-2019, and zero otherwise. *SIZE* is the natural logarithm of total assets. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEB* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise.

Table 3. The impact of a switch in the accounting standards on audit fees

		Model 1	Model 2
	Predicted Sign	Coefficient (t-statistic)	Coefficient (t-statistic)
Intercept	?	-0.882 (-5.34) ***	2.773 (26.94) ***
<i>CHGACCT</i>	?	-0.262 (-7.16) ***	-0.180 (-3.68) ***
<i>SIZE</i>	+	0.380 (32.28) ***	
<i>CHGACCT*DSIZE</i>	?		-0.209 (-2.70) ***
<i>DSIZE</i>	+		1.121 (21.66) ***
<i>BIG4</i>	+	0.174 (4.54) ***	0.381 (9.39) ***
<i>DEBT</i>	+	0.013 (0.35)	0.024 (0.60)
<i>QUICK</i>	-	-0.029 (-4.88) ***	-0.040 (-6.05) ***
<i>ROA</i>	-	-0.001 (-1.24)	0.000 (-0.23)
<i>LOSS</i>	+	0.108 (2.55) **	0.081 (1.77) *
<i>RECINV</i>	+	0.899 (11.36) ***	0.705 (8.62) ***
<i>SEG</i>	+	0.047 (1.04)	0.022 (0.45)
<i>SUB</i>	+	0.347 (18.00) ***	0.022 (23.77) ***
<i>MAJOR</i>	?	0.156 (3.48) ***	0.368 (7.68) ***
<i>ΣINDUSTRY</i>	?	YES	YES
<i>ΣYEAR</i>	?	YES	YES
R ²		0.653	0.590

N	3,461	3,461
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The dependent variable in Models 1 and 2 are *FEE*, the natural logarithm of audit fees. *CHGACCT* is a dummy variable equal to one if firms select to switch from IFRS to New UK GAAP during 2015-2019, and zero otherwise. *SIZE* is the natural logarithm of total assets. *DSIZE* is a dummy variable which equals one for firms whose firm size is above the median value and zero otherwise. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEG* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise. ***, **, * denote significance at the 0.01, 0.05 and 0.1 levels respectively (two-tailed). Numbers in parentheses represent t-values.

Table 4. The impact of a switch in the accounting standards on audit fees: a DID design

		Model 3
	Predicted Sign	Coefficient (t-statistic)
Intercept	?	-1.167 (-7.66) ***
<i>POST</i>	+	0.144 (1.88) *
<i>POST*SWITCH</i>	?	-0.287 (-7.21) ***
<i>SIZE</i>	+	0.378 (28.68) ***
<i>BIG4</i>	+	0.228 (5.36) ***
<i>DEBT</i>	+	-0.080 (-1.68) *
<i>QUICK</i>	-	-0.038 (-5.73) ***
<i>ROA</i>	-	-0.003 (-1.97) **
<i>LOSS</i>	+	0.100 (1.99) **
<i>RECINV</i>	+	1.102 (14.55) ***
<i>SEG</i>	+	-0.221 (-5.08) ***
<i>SUB</i>	+	0.415 (19.47) ***
<i>MAJOR</i>	?	0.202 (3.97) ***
R ²		0.582
N		2,620

The dependent variable is *FEE*, the natural logarithm of audit fees. *POST* equals one for the post-New UK GAAP period from 2015 to 2019, and zero for the pre-New UK GAAP period for 2014. *SWITCH* is a dummy variable equal to one if firms select to switch from IFRS to New UK GAAP during 2014-

2019, and zero otherwise. *SIZE* is the natural logarithm of total assets. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEG* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise. ***, **, * denote significance at the 0.01, 0.05 and 0.1 levels respectively (two-tailed). Numbers in parentheses represent t-values.

Table 5. The impact of a switch in the accounting standards on audit fees: a DID design using the firm-level matching and including year and industry fixed effects

		Model 3
	Predicted Sign	Coefficient (t-statistic)
Intercept	?	-1.597 (-4.91) ***
<i>POST</i>	+	0.197 (2.02) **
<i>POST*SWITCH_F</i>	?	-0.245 (-4.73) ***
<i>SIZE</i>	+	0.380 (20.31) ***
<i>BIG4</i>	+	0.235 (4.27) ***
<i>DEBT</i>	+	-0.014 (-0.25)
<i>QUICK</i>	-	-0.034 (-3.67) ***
<i>ROA</i>	-	-0.002 (-1.10)
<i>LOSS</i>	+	0.128 (2.04) **
<i>RECINV</i>	+	1.059 (8.80) ***
<i>SEG</i>	+	0.079 (1.24)
<i>SUB</i>	+	0.314 (10.16) ***
<i>MAJOR</i>	?	0.198 (3.01) ***
Σ INDUSTRY	?	YES
Σ YEAR	?	YES
R ²		0.635

N

1,566

The dependent variable is *FEE*, the natural logarithm of audit fees. *POST* equals one for the post-New UK GAAP period from 2015 to 2019, and zero for the pre-New UK GAAP period for 2014.

SWITCH_F is a dummy variable defined at the firm level, equal to one if firms select to switch from IFRS to New UK GAAP during 2014-2019, and zero otherwise. *SIZE* is the natural logarithm of total assets. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEG* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise. ***, **, * denote significance at the 0.01, 0.05 and 0.1 levels respectively (two-tailed). Numbers in parentheses represent t-values.

Table 6. The association between a switch in the accounting standards and audit fees: three-stage least-squares regression for a DID design

Model 3: The dependent variable: <i>FEE</i>		Model 4: The dependent variable: <i>SWITCH</i>	
	Coefficient (t-statistic)		Coefficient (t-statistic)
Intercept	-1.250 (-8.62) ***	Intercept	0.083 (1.14)
<i>POST</i>	0.541 (7.67) ***	<i>FEE</i>	-0.279 (-14.39) ***
<i>POST*SWITCH</i>	-1.087 (-31.24) ***	<i>MAJOR</i>	0.135 (4.91) ***
<i>SIZE</i>	0.395 (33.40) ***	<i>SIZE</i>	0.125 (11.63) ***
<i>BIG4</i>	0.170 (4.58) ***	<i>GROWTH</i>	0.006 (0.84)
<i>DEBT</i>	-0.183 (-3.90) ***	<i>DEBT</i>	-0.147 (-5.53) ***
<i>QUICK</i>	-0.028 (-5.47) ***	<i>ROA</i>	-0.002 (-3.02) ***
<i>ROA</i>	-0.004 (-2.92) ***		
<i>LOSS</i>	0.079 (1.87) *		
<i>RECINV</i>	0.839 (11.95) ***		
<i>SEG</i>	-0.171 (-4.63) ***		
<i>SUB</i>	0.316 (16.89) ***		
<i>MAJOR</i>	0.267 (5.56) ***		
chi2	4233.220		214.230

The dependent variable in Model 3 is *FEE*, the natural logarithm of audit fees. The definitions of variables in Model 3 are as follows. *POST* equals one for the post-New UK GAAP period from 2015 to 2019, and zero for the pre-New UK GAAP period for 2014. *SWITCH* is a dummy variable equal to one

if firms select to switch from IFRS to New UK GAAP during 2014-2019, and zero otherwise. *SIZE* is the natural logarithm of total assets. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEG* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise. The dependent variable in Model 4 is *SWITCH*, as defined in Model 3. *GROWTH* is the annual growth rate of sales. Other variables in Model 4 are as defined in Model 3. ***, **, * denote significance at the 0.01, 0.05 and 0.1 levels respectively (two-tailed). Numbers in parentheses represent t-values.

Table 7. The impact of a switch in the accounting standards on audit fees: shorten post-new UK GAAP period for a DID design

		Model 3
	Predicted Sign	Coefficient (t-statistic)
Intercept	?	-1.321 (-4.51) ***
<i>POST_S</i>	+	0.170 (1.81) *
<i>POST_S*SWITCH_S</i>	?	-0.218 (-2.56) **
<i>SIZE</i>	+	0.377 (13.26) ***
<i>BIG4</i>	+	0.287 (2.98) ***
<i>DEBT</i>	+	0.055 (0.68)
<i>QUICK</i>	-	-0.052 (-3.55) ***
<i>ROA</i>	-	-0.002 (-0.93)
<i>LOSS</i>	+	0.280 (3.08) ***
<i>RECINV</i>	+	1.021 (6.81) ***
<i>SEG</i>	+	-0.104 (-1.17)
<i>SUB</i>	+	0.429 (11.04) ***
<i>MAJOR</i>	?	0.103 (1.09)
R ²		0.599
N		646

This table reports the DID results for the short-term effect. The dependent variable is *FEE*, the natural logarithm of audit fees. *POST_S* equals one for the post-New UK GAAP period of 2015, and zero for the pre-New UK GAAP period for 2014. *SWITCH_S* is a dummy variable equal to one if firms select to

switch from IFRS to New UK GAAP during 2014-2015, and zero otherwise. *SIZE* is the natural logarithm of total assets. *BIG4* is defined as one if the firm's auditor is Deloitte, Ernst & Young, KPMG, or PricewaterhouseCoopers, and zero otherwise. *DEBT* is long-term debts divided by total assets. *QUICK* is the ratio of current assets to current liability. *ROA* is defined as earnings before non-recurring items divided by total assets. *LOSS* is a dummy variable equal to one if a firm's net income is negative and zero otherwise. *RECINV* is defined as the sum of accounts receivables and inventory divided by total assets. *SEG* is the natural logarithm of the value of one plus the number of total segments, and *SUB* is the natural logarithm of the value of one plus the number of total subsidiaries. *MAJOR* takes the value of one if firms have a major shareholder with ownership greater than 50 percent and zero otherwise. ***, **, * denote significance at the 0.01, 0.05 and 0.1 levels respectively (two-tailed). Numbers in parentheses represent t-values.