The impact of FRS 102 on medium sized companies

A thesis submitted for the degree of Doctor of Philosophy

by

Mohamed Abbas

Brunel Business School

Brunel University London

June 2018

Summary

Background

IFRS for SMEs was published in 2009. Following a consultation by the European Commission, the majority opinion amongst EU member states was that its adoption should be provided for within the EU accounting legal framework. In the light of this discussion, the UK's Financial Reporting Council decided to implement a new standard for medium sized companies (FRS102, effective 1st January 2015), based on the IFRS for SMEs but which avoided its conflicts with the EU Accounting Directives. FRS 102 is the cornerstone of a new financial reporting regime that represents the most significant change to UK GAAP in a generation. There are areas of key differences between the old UK GAAP and FRS 102 which, in turn, expected to have impacts on financial reporting and consequently on key financial ratios. Ormrod and Taylor (2004) argue that the change in accounting standards could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. The importance of this research area stems from how the application of new accounting regulation might affect financial reporting and then the decisions by the main stakeholders.

Objective

The objective of this Ph.D. thesis is to examine the impact of FRS 102 implementation on key financial ratios of liquidity, leverage, and return of medium-sized companies in the UK. The purpose of this is to inform different interested stakeholders, such as the adopting companies, lenders, regulators and member states of EU about the impact of the transition to FRS 102 on medium-size companies, as there is no previous evidence in this regard. Recognizing and understanding the effect of FRS 102 on financial reporting might affect making decisions by these stakeholders.

Method

Due to the lack of the relevant literature and, more specifically, no previous study about the impact of FRS 102 on medium-size companies, semi-structured interviews with highly experienced practitioners have been conducted to give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102, and to help in identifying the types of companies that could be affected as a result. These interviews are complementary to the limited literature to narrow down the focus of the study in terms of the areas of impact and the likely affected companies as well as to help in developing the research hypotheses.

Afterwards, I conduct my investigation using triangulation between two methods. Firstly, the 'reconciliation statements' method based on the financial reports for the year prior to FRS 102 implementation. In this year, financial statements are available under both old UK GAAP and FRS 102 which give a unique opportunity to examine the impact of FRS 102. Although the sample is relatively small, as the data are hand-collected, the changes reflect only the impact of FRS 102. In other words, there are no other factors involved except the transition to FRS 102 and then the effects are, for sure, caused by FRS 102.

Secondly, I use the 'difference-in-differences' method using the year before and the year after the transition to FRS 102 to achieve the same research objective. The 'difference-in-differences' method is based on a large sample; however, I need to exclude the effects of other factors (economic effects). Both methods are commonly used in the research area and each method has strength and weakness. The weakness of each method is unique to that method and therefore is not replicated and therefore I take advantage of the using both methods as a form of 'method triangulation'. Moreover, using both methods is considered as a contribution to the present study as the previous studies in the area use only either 'reconciliation statements' method or 'difference-in-differences' method.

Results

According to the interviews, transactions that are expected to have a significant impact on medium-size companies are investment properties, financial instruments, pension costs, capitalization of borrowing costs, intra group loans and deferred tax. Whereas transactions that are expected to have low/no impact on financial reporting are intangible assets, holiday pay, capitalization of development costs and leasing. Also, it is expected to be volatility in profit after the transition to FRS 102. Accordingly, the sample selection in chapter 4 (reconciliation statement-based analysis) and in the first section of analysis in chapter 5 (difference-in-differences analysis) is based on these areas of expected effect, namely, due to the type of transactions.

The findings from chapter 4 are based on 368 medium size companies from Companies House in the year of transition (reconciliation statements in 2014). These are companies more likely to have similar transactions. The findings show that these companies have less liquidity, less performance, and more risk as well as more volatility in profits. Accordingly, the image of this group of companies seems worsened. This might affect the relationship with the main stakeholders especially banks. The findings from chapter 5 are based on the entire population of medium size companies, which are

6430 medium-sized companies for the years 2014 and 2015 taken from the FAME database. These findings show that the smaller medium-sized companies have less liquidity but better performance and less risk. This consequently, might create more tax to pay. As for the larger medium-sized companies have greater liquidity but poorer performance and more risk. This consequently, might make it more difficult to borrow more money from banks and/or might affect the debt covenants. In terms of industry effect, the findings suggest that the effect of FRS 102 spreads across different industries, and some industries look better than others. Finally, the reasons behind the changes are fair value accounting of investment property and financial instruments as well as the treatments of amortization, pension liabilities, deferred tax and group loans.

The two methods used in chapter 4 and chapter 5 are totally different in terms of the source of data, sample size, statistical tests, time periods, the effect of transitional adjustments in chapter 4 and economic effect in chapter 5. However, the findings from both chapters (5 and 6) are generally consistent between companies likely to have similar transactions (in chapter 4) and the larger medium-size companies (in chapter 5) which are also expected to have more complex transactions. More specifically, both groups of companies (samples) have reductions in profitability and Interest Cover and an increase in leverage.

Implication

Why does it matter? Shareholders need to understand why reported figures might have changed. For banks, small changes might have critical effects on financial ratios and then on debt covenants. Other interested parties are Government, employees, suppliers, and competitors (see the general conclusion). Furthermore, the findings will be of interest to the member states of EU that might consider following (or not to follow) the UK as a first case that amended and applied IFRS for SMEs which is not permitted, to be adopted as it is, according to the incompatibilities with EU Accounting Directive.

The present study contributes to the relevant literature (Callao et al., 2007; Asbitt, 2006; Stenka et al., 2008; Gastón et al., 2010; Lantto et al., 2009; Tsalavoutas and Evans, 2010 and Pálka and Svitáková, 2011) in terms of how changes in accounting regulations affect the way in which performance is reported, and how key financial ratios, which might have impacts on contractual obligations, could be affected. Ormrod and Taylor (2004) argue that the change in accounting standards could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. This research area is underrepresented in the academic literature for

SMEs and more specifically for medium-sized companies. Moreover, there is no previous evidence about the impact of FRS 102 on financial reporting. Also, the findings are inconsistent with the Anglo-Saxon debate which suggests that UK companies are not expected to be affected by international accounting standards as they have a similar environment where these standards have been established. Another contribution is in terms of the research methodology, as two commonly used methods have been triangulated to achieve the same aim and to give the whole picture of the FRS 102 implementation on medium-size companies. This is considered as a contribution, as there is no previous study has conducted such triangulation. Furthermore, the findings of this study, after FRS 102 adoption, will give feedback to the regulators especially in the review of the standard as well as being of interest to the main users of financial statements of medium-sized companies regarding the recognizing and understanding the effect of the changes after the transition to FRS 102.

Table of Contents

List of tables

Chapter 1: Introduction

Chapter 2: Literature Review and hypothesis development

Chapter 3: Methodology

Chapter 4: Effect of FRS 102 in the first-time adoption reconciliation statements

Chapter 5: First-Year Adoption (2015)

List of Abbreviations

The following table describes terminologies, abbreviations and interviewees description in the thesis.

Abbreviations & Terminologies	Meaning
ACCA	Association of Chartered Certified Accountant in the UK.
AIM	Alternative Investment Market in the UK.
ASB	Accounting Standards Board in the UK.
DTI	The Department for Trade and Industry which was a United Kingdom government department.
FAME	Financial Analysis Made Easy database supplied by Bureau Van Dijk.
First time adoption	When medium-sized companies in the UK were required to apply the Financial Reporting Standard 102, which is on or after 1st January 2015.
FRC	Financial Reporting Council: is the independent regulator in the UK.
FRED 48	Financial Reporting Exposure Draft: is The Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102)
FRS 102	FRS 102 the Financial Reporting Standard applicable in the UK and Republic of Ireland.
IASB	International Accounting Standards Board
IASC	The International Accounting Standard Committee
ICAEW	Institute of Chartered Accountants in England and Wales

Abbreviations & Terminologies	Meaning
IFRS	International Financial Reporting Standards
IFRS for SMEs	The International Financial Reporting Standard for Small and Medium-sized Entities.
Medium size companies	An entity should satisfy at least two of three criteria to be qualified as a medium. These criteria are Turnover: more than £6.5 M to £25.9 M, Balance sheet: more than £3.26 M to £12.9 M, and a number of employees: more than 50 to 250. An entity qualifies as 'medium-sized' in its first accounting period if it fulfils the conditions (thresholds) in that period. In any subsequent period, a company must fulfil the conditions in that period and the period before.
Reconciliation statements	Under Section 35 of FRS 102, companies are required to produce reconciliations as part of their transition to FRS 102 in order to explain how the transition from UK GAAP to FRS 102 affects their financial position and financial performance.
SMEs	Small and Medium-sized Entities.
The Fourth Directive	Fourth Directive: annual accounts of companies with limited liability. This Directive coordinates Member States' provisions concerning the presentation and content of annual accounts and annual reports, the valuation methods used and their publication in respect of all companies with limited liability.
The Seventh Directive	Seventh Directive: consolidated accounts of companies with limited liability. This Directive coordinates national laws on consolidated accounts.
UK GAAP	The UK Generally Accepted Accounting Principles which are a collection of Financial Reporting Standards (FRSs), Statements of Standard Accounting Practice (SSAP) and Urgent Issues Task Force (UITF) Abstracts.
Year of transition	The year prior to the year of the first-time adoption

Abbreviations & Terminologies	Meaning
Interviewees	
Interviewees 1	A partner in charge of Financial Reporting Advisory team in a large accounting firm and is highly experienced in UK GAAP. The interviewee is a member of the UK GAAP Technical Advisory Group (TAG) having been appointed by the FRC and is also a member of an IFRS working group for European Financial Reporting Advisory Group (EFRAG). Moreover, this interviewee engages in financial reporting of medium size companies and advises the clients regarding FRS 102 issues.
Interviewees 2	A partner and a Head of Financial Reporting at a large accounting firm and a member of the Financial Reporting Council's committee which maintains UK GAAP. As well as this, the interviewee is a member of the Financial Reporting Faculty Board at the ICAEW and a key member of their Financial Reporting Committee (FRC), which issues responses on all financial reporting-based consultations from both UK and global regulators and standard setters. Moreover, the interviewee is highly interested in the UK GAAP as well as engaging in financial reporting of medium sized companies and advising the clients regarding FRS 102 issues.
Interviewees 3	A Head of Financial Reporting from one of the UK professional accounting bodies. The interviewee is also a senior member of the Accounting Expert Group at the European Federation of Accountants and Auditors for SMEs (EFAA), and a member of the reporting policy groups at Accountancy Europe. The interviewee also is a member of the European Commission Expert Group for the evaluation of the IFRS Regulation as well as worked for the International Standards of Accounting and Reporting (ISAR) group at The United Nations Conference on Trade and Development (UNCTAD), looking into Reporting and Sustainable Development and in developing accounting guidance for SMEs.

Acknowledgement

The completion of this study required the time and efforts of individuals and organisations that deserve my appreciation and gratitude. A debt of gratitude can never be repaid, it can only be acknowledged.

First of all, I am grateful to Almighty ALLAH who gave me the ability to complete this research.

At the outset I would like to express my sincere gratitude and special thanks to my supervisory team, Professor. Robin Jarvis, and Professor. Len Skerratt for their professional guidance, patience, understanding and the unlimited support throughout the course of my study. They really added to my knowledge, skills and my way of thinking.

I am also grateful to my research development advisor; Professor. Jill Collis for her support and encouragement.

I gratefully acknowledge the financial support from the Libyan Ministry of Education, the Libyan Cultural Affairs Office in London, and Benghazi University for providing me the opportunity and the support to study the PhD in the UK.

I also express my indebtedness to my family; my mother, my late father, my late sister 'Wardah', for my wife and for my brothers and sisters for their unlimited and unforgettable support through this journey, and the journey of life.

Last but not least, my thanks for the staff at Brunel Business School and all my colleagues and friends who helped me in a way or another to achieve this work.

Declaration

The work described in this thesis has not been previously submitted for a degree in this university or any other university and otherwise reference the author's work.

Statement of Copyright

The copyright of this thesis rest within the author, no question from it should be published without his prior written consent and information derived from it should be acknowledged.

1   Chapter 1: Introduction

1.1   General Background

1.1.1   Overview

The development of SMEs regulation has seen several stages starting from The Fourth Directive (78/660/EEC) that requires limited liability companies to prepare and file audited annual financial statements and it also gives options for SMEs to register less detailed abbreviated accounts. Also, in 1983 The Seventh Directive allows Member States in EU to exempt SMEs from consolidation requirements (Article 6.1). In 1998, The International Accounting Standard Committee (IASC) launched an SME project for differential reporting and then the exposure draft of the IFRS for SMEs was issued by the IASB. Afterward, the IFRS for SMEs was published in 2009. In response to these developments, the ASB issued the Financial Reporting Exposure Draft (FRED 48) The Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) which was issued by the FRC to be applied on or after 1st January 2015. From 2015, medium[1] size companies moved from the old UK Generally Accepted Accounting Practice (GAAP) to FRS 102.

The objective of FRS 102

The Financial Reporting Council (FRC) states that "Financial Reporting Exposure Draft 48 (FRED 48), for the FRS 102, is a proportionate solution written specifically for smaller and medium-sized companies whilst maintaining the quality of financial reporting" (ASB, 2012). In 2013, the FRC states that "the objective in setting accounting standards is to enable users of accounts to receive high-quality understandable financial reporting proportionate to the size and complexity of the company and users' information needs" (FRC, 2013a). The FRC states that "the adoption of an IFRS-based framework will allow better benchmarking and comparison

---

[1] Generally, a company qualifies as 'medium-sized' in its first accounting period if it fulfils the conditions (thresholds) in that period. In any subsequent period a company must fulfil the conditions in that period and the period before (Companies House, 2016). According to Company law, the size thresholds for qualification as "medium" are as follows: turnover: £25.9m, balance sheet total: £12.9m and number of employees: 250.

between companies; the enhanced transparency may also lead to a reduction in the cost of borrowing because users have easy access to understandable, comparable information" (FRC, 2013b). The FRC also states that "FRS 102 is designed to apply to the general purpose financial statements and financial reporting of companies which are intended to focus on the common information needs of a wide range of users; shareholders, lenders, other creditors, employees and members of the public, for example" (FRC, 2013a). Moreover, the FRC expresses that "the FRC, and the majority of affected stakeholders, believes that the introduction of new UK GAAP will have a positive impact on financial reporting" (FRC, 2013b). In this regard, also Liu and Skerratt (2018) recommend that the FRC might need to review the reporting requirements of medium size companies as they have the poorest earnings equality compared to listed, small and even micro-companies in the UK.

1.1.2   The motivation of the study

New accounting regulation will invariably result in changes in recognition and/or measurement requirements. Consequently, it is, in turn, expected that these changes will impact on the reporting performance. As a result, changes are likely to be seen in accounting figures and then reflected in financial ratios as performance indicators. The importance of this research area stems from how the application of new accounting regulation may impact financial reporting and then how stakeholders could be affected. Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. This, therefore, could for example, negatively affect the relationship between companies and lenders. Hence, how might the transition to FRS 102 affect financial reporting?

FRS 102 is the cornerstone of a new financial reporting regime that represents the most significant change to UK GAAP in a generation (ICAEW, 2015a, p. 3). There are areas of key differences between old UK GAAP and FRS 102 such as investment property, financial instruments, intangibles, pension costs, leasing, holiday pay and deferred tax (PwC, 2015). One criticism of FRS 102 is that it is likely to make earnings more volatile (Accountancy, 2015a; Accountancy, 2015b). However, it is still too soon

to find evidence to support this. Perhaps more critical in the short term is the effect on financial reporting, rather than the focus on the economic consequences (Aisbitt, 2006). A senior manager at PwC says that, after FRS 102 adoption, the calculation of key financial ratios and covenants might be affected (Accountancy, 2015b, p. 63). Therefore, there is an urgent need for the main stakeholders as well as policymakers to understand the implications of FRS adoption. Therefore, how might the transition from old UK GAAP to FRS 102 affect key financial ratios which are commonly used by the main stakeholders?

In the UK, financial reports are used for both internal and external purposes (Collis, 2010). In this regard, Accountancy (2014)[2] clarifies how many stakeholders in a company's financial statements view the sorts of changes that will arise from applying FRS 102 for the first time; shareholders "they need to understand why reported figures might have changed and they are likely to be particularly interested in the overall effect as well as the individual details". Banks "small changes might have critical effects on financial ratios and then on debt covenants". Government "the clearest effect is in terms of tax take". Employees "if they are part of a bonus scheme that is linked to results". Suppliers "they take the opportunity to revisit their customer acceptance procedures at the same time as they refresh their own financial reporting". Competitors "it is a practical fact that preparers will have an eye on to how their choices align with those of their competitors" (Accountancy, 2014, p. 51-53).

1.1.3 Study objective

The objective of this study is to examine the impact of FRS 102 on key financial ratios of liquidity, leverage, and return of medium-sized companies in the UK. Accordingly, we conduct our investigation using triangulation between two methods, which are, firstly, 'reconciliation statements' method based on the financial reports for the year prior to FRS 102 implementation. In this year, financial statements are available under both old UK GAAP and FRS 102 which give a unique opportunity to examine the impact of FRS 102. Secondly, I use the 'difference-in-differences' method using the

---

[2] The author is Helen Lloyd. She has a wealth of experience in technical issues from Deloitte, BDO and the ASB, the predecessor to the Financial Reporting Council's Accounting Council, where she was a project director on the Future of UK GAAP (FRS 102). https://www.accountancylive.com/helen-lloyd

year before and the year after the transition to FRS 102 to achieve the same research objective. Both methods are commonly used in the research area and each method has strength and weakness. The weakness of each method is unique to that method and therefore is not replicated and consequently, therefore, I take advantage of the using both methods as a form of 'method triangulation'. Moreover, using both methods is considered as a contribution to the present study as the previous studies in the area use only either 'reconciliation statements' method or 'difference-in-differences' method. Table 1-1 shows strengths and weaknesses as well as the main differences between the two methods 'reconciliation statements' and 'difference in differences' methods.

Table 1-1: Reconciliation statements method versus difference-in-differences method

Pros/Cons and differences	Method	
	Reconciliation statements	**Difference in differences**
Economic effects	No, I compare like with like: changes reflect **only** FRS 102 impact. ✓	Yes, I have to control for the economic effect. ✖
Transitional adjustments	Yes, there are. ✖	No. ✓
Sample size	Small ✖	Large ✓
Representativeness	Less Representative ✖	More Representative ✓

✓ = advantage. ✖ = disadvantage.

The strength of 'reconciliation statements analysis' is that if there is any effect, it is 100% caused by the transition to FRS 102. As for the 'difference-in-differences analysis', there are no transitional arrangements and it allows to use a large sample and then the findings are more representative and generalizable for the entire population

1.2 History and background: development of UK GAAP for medium size companies

1.2.1 Regulatory timeline of Medium-sized companies in the UK

The following table gives more details about the regulatory timeline of medium size companies in the UK from 1978 until 2015. When we talk about the SMEs accounting regulation, we have to mention the Accounting Directives. The Fourth Accounting Directive in 1978 that allowed SMEs to register less detailed abbreviated accounts as well as the Seventh Directive which allows Member States in EU to exempt SMEs from consolidation requirements. Both of these Directives were incorporated in the Companies Act in the UK. Another turning point regarding the SMEs accounting regulations is the IASC project for SME differential reporting in 1998. In 2007, the IASB issued an exposure draft of the IFRS for SMEs which then was published in 2009. The European Council in 2011 called for the overall regulatory burden, in particular for SMEs, to be reduced at both Union and national level. 1n 2012, ASB in the UK issued Financial Reporting Exposure Draft (FRED 48) The Financial Reporting Standard applicable in the UK and Republic of Ireland which was subsequently issued in 2013 and then amended in 2014 to be applied on or after 1ˢᵗ January 2015.

Table 1-2 Regulatory timelines of Medium-sized companies in the UK

Date	Event	Document	Details
1978	The Fourth Directive (78/660/EEC) requires limited liability companies to prepare and file audited annual financial statements. It also gives options for SMEs to register less detailed abbreviated accounts.	The Fourth Directive (78/660/EEC)	The Fourth Directive is the source of current law on unconsolidated financial reporting by limited companies in the 27 member states of the European Union (Nobes, 2010).
1981	The option for SMEs to file less detailed accounts (abbreviated accounts).	Companies Act 1981	The Act referred to 'modified' accounts (Collis, 2008).
1983	The Seventh Directive allows Member States in EU to exempt SMEs from consolidation requirements (Article 6.1).	Seventh Directive (83/349/EEC).	(Diggle & Nobes, 1994).
1985	SMEs were Permitted to file abbreviated accounts with the Registrar of Companies.	Companies Act 1985 http://www.legislation.gov.uk/ukpga/1985/6	
1989	SMEs were required to disclose any material cash flows in their accounts.	Companies Act 1989 http://www.legislation.gov.uk/ukpga/1989/40/contents	The term 'abbreviated' accounts has been used in UK company law.
April 1998	The IASC launched an SME project for differential reporting.	IASB	
1999	The Company Law Review Steering Group recommended that SMEs should no longer be able to file uninformative "abbreviated" accounts.	Company Law Review Steering Group. (1999). Modern Company Law for a Competitive Economy: The Strategic Framework: a Consultative Document. Department of Trade and Industry. (Collis, 2012).	
2003	IASB began deliberations about SMEs project from the former IASC agenda.	*IFRS for SMEs* Fact Sheet, July 2009 http://www.ifrs.org/News/Press-Releases/Documents/IFRSforSMEsfactsheet2.pdf	
Feb 2004	The IASB concluded that IFRS was suitable for all companies, irrespective of size or public trading.	(IASB, 2004)	
2006	Companies Act 2006, introduced new, simpler and easier to understand,	the Companies Act 2006	Requirements of the Fourth Directive are incorporated in the

Date	Event	Document	Details
	provisions for SMEs. However, the abbreviated accounts option was retained.		Companies Act 2006, which obliges limited liability companies to prepare accounts giving a true and fair view (Kitching et al., 2012).
2006	The European Commission adopted an updated simplification programme with a view to measuring administrative costs and reducing administrative burdens that unnecessarily hamper the economic activities of European businesses.	EC COM (2006) 689 final, OJ C 78, 11.4.2007 http://ec.europa.eu/internal_market/company/docs/simplification/com2007_394_en.pdf	
Feb 2007	The IASB issued an exposure draft of the IFRS for SMEs.	(IASB, 2007). https://www.iasplus.com/en/projects/completed/fs/sme	The [draft] *IFRS for SMEs* was developed by (a) extracting the fundamental concepts from the IASB *Framework* and the principles and related mandatory guidance from IFRSs (including Interpretations), and (b) considering the modifications that are appropriate on the basis of users' needs and cost-benefit considerations.
July 2007	European Commission adopted a communication setting out its proposals for simplifying the areas of company law, accounting and auditing.	Commission of The European Communities http://ec.europa.eu/internal_market/company/docs/simplification/20080925commprop_en.pdf	
Dec 2008	The European Parliament adopted a non-legislative Resolution stating that the Accounting Directives are "often very burdensome for small and medium-sized companies.	EP resolution of 18 December 2008 on accounting requirements as regards small and medium-sized companies, particularly micro-companies (B6-0626/2008)	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013L0034
July 2009	Publication of the IFRS for SMEs.	IASB, 2009	The IFRS for SMEs is a

Date	Event	Document	Details
		http://www.ifrs.org/News/Press-Releases/Documents/PRIFRSforSMEs.pdf	simplification of the principles in IFRS for recognizing and measuring assets, liabilities, income and expenses (FRC, 2014).
March 2011	The European Council called for the overall regulatory burden, in particular for SMEs, to be reduced at both Union and national level.	The European Parliament and Council of European Union, 2013.	
April 2011	The Commission Communication entitled "Single Market Act", proposes to simplify the Fourth Council Directive 78/660/EEC and the Seventh Council Directive 83/349/EEC (the Accounting Directives) as regards financial information obligations and to reduce administrative burdens, in particular for SMEs.	The European Parliament and Council of European Union, 2013	
2012	ASB issues Financial Reporting Exposure Draft (FRED 48) The Financial Reporting Standard applicable in the UK and Republic of Ireland (draft FRS102).	ASB https://frc.org.uk/Our-Work/Publications/ASB/Revised-FRED-46,-47-48-The-Future-of-Financial-Rep.aspx	*"FRED 48 is a proportionate solution written specifically for smaller and medium-sized companies whilst maintaining the quality of financial reporting"* (ASB, 2012).
July 2012	The FRC assumed responsibility for accounting standards.	FRC https://www.frc.org.uk/Our-Work/Codes-Standards/Accounting-and-Reporting-Policy.aspx	
March 2013	FRC issues FRS 102 to be applied on or after 1st January 2015	FRC, 2013	*"The objective in setting accounting standards is to enable users of accountsto receive high-quality understandable financial reporting proportionate to the size and complexity of the companyand users' information needs".*
June 2013	Repeal of Directives 78/660/EEC and 83/349/EEC	DIRECTIVE 2013/34/EU OF THE EUROPEAN ARLIAMENT AND OF	The Fourth and Seventh Directives have served as the basis for general purpose financial reporting in the

Date	Event	Document	Details
	The Directive 2013/34/EU introduces a building block approach to the statutory financial statements that companies prepare, with increasing levels of disclosure dependant on the size of the undertaking. It seeks to increase the comparability of financial reports across Member States by reducing the number of options available to the preparers of financial statements in respect of recognition, measurement and presentation.	THE COUNCIL. *Article 52*. 26 June 2013. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013L0034	European Union for about three decades (ASB). Consultation paper – Modernisation of the EU Accounting Directives 25 February – 30 April 2009. The Directive 2013/34/EU amends Directive 2006 and repeal of Directives 78/660/EEC and 83/349/EEC.
Nov 2013	Clarification statement in relation to deferred tax arising on a business combination	FRC FRS 102, Section 29 *Income Tax*	
Dec 2013	Staff Education Note 5 provides a comparison of the accounting treatment for tangible fixed assets under current UK accounting standards and under FRS 102. In practice, for the majority of companies there are no significant differences in the accounting treatment of tangible fixed assets.	FRC, 2013 Accounting and Reporting Policy FRS 102 Staff Education Note 5 Property, plant and equipment.	There are 16 Staff Education Notes about different sections of FRS 102 were issued by the FRC.
July 2014	Amendments: to FRS 102 – Basic financial instruments and Hedge accounting.	FRC FRS 102	
August 2014	The second version of FRS 102.		
January 2015	FRS 102 is effective and replaces existing financial reporting standards.	FRC	FRS 102 replaced over 70 accounting standards and UITF Abstracts spanning more than 2,400 pages, with one succinct standard of a little over 300 pages. It reflects developments in the way businesses operate and uses up-to-date accounting treatment and language (FRC, 2015).

1.2.2 The setting process of FRS 102

1.2.2.1 The rationale behind setting out FRS 102

The FRC states that "the over-arching requirement of the Companies Act is that companies must prepare financial statements that present a true and fair view of their financial performance and position. Accounting standards provide guidance on the accounting and reporting necessary to achieve a true and fair view. As businesses evolve and transactions change, relevant information about an entity's financial performance or position may not be recognised in the financial statements and consequently accounting standards need to be revised to address this" (FRC, 2013b, p. 5, impact assessment).

The FRC also recognised that "there are a number of concerns with the old UK standards, in particular:

a) There is no consistent framework. The current standards are a mix of Statements of Standard Accounting Practice (SSAPs) issued by the Consultative Committee of Accounting Bodies (CCAB), FRSs developed and issued by the ASB and IFRS-based standards issued by the ASB to converge with international standards.

b) The standards permit certain transactions that are relevant to an assessment of the financial position of an company to remain unrecognized.

c) The standards have not kept pace with evolving business transactions and in some areas are out of date. As business practices change, so too must accounting requirements to ensure that financial statements continue to show a true and fair view.

(FRC, 2013b, p.5, impact assessment)

Moreover, the FRC states that "consultations took place on over a number of years and each time the proposals were adapted, taking into account the feedback received. The FRC believes, and the vast majority of respondents broadly agree, that current standards require revision if they are to remain 'fit for purpose' in supporting high quality financial reporting" (FRC, 2013b, p. 5).

The FRC considered the following options: (a) do nothing; (b) introduce an IFRS-based framework; or (c) maintain and update UK accounting standards that are not based on IFRS. Therefore, the FRC did not believe that doing nothing was a viable option in the medium to long term and respondents agreed. Of the two remaining options, the introduction of an IFRS-based regime was pursued as it would result in a coherent and up-to-date framework, and be more cost-effective to produce (FRC, 2013b, p. 5).

In 2007, the IASB issued an exposure draft of IFRS for SMEs, with the following objectives: (1) to provide high quality, understandable and enforceable accounting standards suitable for SMEs globally, (2) to reduce the financial reporting burden on SMEs that want to use global standards and (3) to meet the needs of the users of SMEs' financial statements (Collis, 2008, p. 18). In 2009, IFRS designed for SMEs was published by IASB and it is a result of a five-year development process with extensive consultation of SMEs worldwide (Liu, 2014, p. 26). However, the European Commission (EC) rejects the option to adopt IFRS for SMEs at supranational level and leaves it to the Member States to make individual decisions with respect to adoption of IFRS for SMEs. In June 2013, the new EU Accounting Directive (2013/34/EU) was issued and the EC argued that 'the IFRS for SMEs would not appropriately serve the objectives of simplification and reduction of administrative burden (Kaya & Koch, 2014). Moreover, the European consultation process on IFRS for SMEs shows substantially divergent opinions with regard to the potential application of IFRS for SMEs. Opponents of IFRS for SMEs stress the complexity of the standard for small firms and point out the limited relevance only for companies engaged in international trade activities (ibid, p.96).

On the other hand, the UK as a European country is not required to adopt IFRS for SMEs but has the option to do so. According to the debate in the literature that IFRS are influenced by US GAAP, UK GAAP or the Anglo-Saxon system generally (Bartov et al., 2005; Hung & Subramanyam 2007, Ionas¸cu, et al., 2007 and Deaconu & Buiga, 2012), the UK is expected to adopt IFRS for SMEs. "The two-group classification of countries by their accounting systems ('Anglo' compared with Continental European) is

useful for predicting and explaining how a jurisdiction will react to IFRS" (Nobes, 2011, p.36). However, regulators in the UK cannot apply IFRS for SMEs as issued by the IASB because of incompatibilities between IFRS for SMEs and the EU Accounting Directive in recognition and measurement requirements. The FRC has modified the IFRS for SMEs substantially, both in terms of the scope of companies eligible to apply it and in terms of the accounting treatments provided (FRC, 2015, p.6). Consequently, the financial reporting framework in the UK has become based entirely on either full IFRS or IFRS for SMEs with the amendments[3].

From a different angle, IFRS for SMEs may be seen as a simplified version of full IFRS which has less recognition, measurement and disclosure requirements. However, the principles/implications which are considered during the full IFRS setting process could be different. For example, "the development of IFRS has been so far been oriented toward capital markets, with the intent of reducing information asymmetries between preparers and users of financial statements (mainly outside equity investors), thus enhancing the capital markets' efficiency" (Bertoni & Rosa, 2010, p.2). In other words, for listed companies the focus is on the capital markets, whereas SME financial statement users and their needs differ from the users and user needs of listed companies. "Empirical evidence shows that the directors of SMEs in the UK believe that the main users of their published accounts are suppliers and other trade creditors, credit rating agencies and competitors, followed by the bank/lenders and customers" (Collis 2008). Moreover, there are also significant differences between user groups of the smallest vs. the larger SMEs (Di Pietra et al., 2008).

In several places/times, FRC mentions that the standard based on IFRS for SMEs, as an international framework, will lead to convergence with IFRS. Also, FRC states that the adoption of an IFRS-based framework will allow better benchmarking and comparison between companies and the enhanced transparency may also lead to a

---

[3] Listed companies are required to apply full IFRS, large private and medium-sized companies required to apply FRS 102 (which based on IFRS for SMEs) or the option to move higher, small companies required to apply Part 1A/FRS 102 or the option to move higher and micro companies are required to adopt FRS 105 which is based on FRS 102.

reduction in the cost of borrowing because users have easy access to understandable, comparable information (FRC, 2013b)". However, even among listed companies which apply full IFRS, there is evidence about continuing national practices and the national patterns of IFRS practice still exist. Moreover, the motives that led to differences between national financial reporting systems might still drive differences in the way in which IFRS is practiced[4] (Nobes, 2011). On the other hand, the EC argued that the IFRS for SMEs would not appropriately serve the objectives of simplification and reduction of administrative burden (Kaya & Koch, 2014). Deaconu & Buiga (2012) state that the Europeans blame the administrative burden that the adoption of IFRS for SMEs would trigger because it does not truly take into consideration the specific needs of the SMEs financial reporting users. The authors also state that IFRS for SMEs may create difficulties in understanding for the users (Deaconu & Buiga, 2012).

However, Collis et al., (2017) say that:

> "It is no surprise that the UK has adopted an IFRS-based approach, as the UK was one of the founding members of the International Accounting Standards Committee (IASC), which was replaced by the IASB in 2001. ….. The UK has also been a strong proponent of little GAAP, as evidenced by the adoption of the maxima EU size thresholds since 2004 and the development of the Financial Reporting Standard for Smaller Companies (FRSSE), which was in use from 1998 to 2015. The FRSSE provided a model for the IASB when designing the IFRS for SMEs in 2009 and both have contributed to FRS 102 and FRS 105 in the UK" (Collis *et al*., 2017, p. 12).

1.2.2.2 Regulators efforts in the UK toward adopting the International Framework

"The requirements in FRSs 100, 101, 102 and 105 are the outcome of a lengthy and extensive consultation. The FRC (and formerly the ASB) together with the

---

[4] Few jurisdictions require companies to comply directly with IFRS as issued by the IASB. The IFRS policies of the same companies in 2008 (which applied IFRS since 2005) reveals few policy changes, and therefore indicates the persistence of national patterns (Nobes, 2011).

Department for Business, Innovation and Skills have consulted on the future of accounting standards in the UK and Republic of Ireland over a ten-year period" (FRC, 2015, p.371). In August 2002, the Department for Trade and Industry (DTI) issued a consultation document 'International Accounting Standards' on the possible extension of the IAS Regulation (ASB, 2009). In March 2004, the Government maintained the option for companies to switch to EU adopted IFRS and extended the option to building societies, Limited Liability Partnerships (LLPs), and to certain banking and insurance companies. The majority of companies and other companies in the UK have not opted to prepare their accounts under EU adopted IFRS and continue to prepare their accounts in compliance with the ASB's accounting standards (ibid). In 2006, the ASB issued a Press Notice (PN 289) seeking views on its current thinking. The responses were mixed, but there was agreement that whatever the solution, it should be based on IFRS and there should be different reporting tiers to ensure proportionality (FRC, 2015). In 2007, after the IASB published an exposure draft of its IFRS for SMEs, the ASB published its own consultation paper. This sought views on how the IFRS for SMEs might fit into the future UK financial reporting framework. ASB states that the Feedback on the IFRS for SMEs was largely positive: it would be suitable for Tier 2 (medium and large companies), it was international, compatible with IFRS, and it represented a significant simplification (FRC 2014, p. 334).

After publication of IFRS for SMEs in 2009, the FRC states that this allowed the ASB to further develop its proposals in the Consultation Paper Policy Proposal: The future of UK GAAP. The ASB states that the proposals were largely consistent with the cumulative results of the preceding consultations and included: (a) a move to an IFRS-based framework and (b) a three-tier approach (FRC, 2015). After 2010 ASB states that the current financial reporting framework, which is a mixture of SSAPs, FRSs and IFRS are an uncomfortable mismatch that lack strong underlying principles or cohesion and whatever the solution, it should be based on IFRS and there should be different reporting tiers to ensure proportionality[5] (FRC, 2015). Afterwards, FRC says during the

---

[5] In 2010 the ASB issued a FRED proposing the application of the IFRS for SMEs to companies that did not have public accountability and were not eligible to apply the FRSSE. Respondents to the proposals

consultation process to date, the Accounting Council and formerly the ASB have been guided (among others) by the following principles:

a) The framework must be fit for purpose, so that each company required to produce true and fair financial statements under UK law will deliver financial statements that are suited to the needs of its primary users.

b) The framework must be proportionate, so that preparing companies are not unduly burdened by costs that outweigh the benefit to them and to the primary users of information in their financial statements. The FRC believes that the proposals will produce a lower cost regime, while enhancing user benefits (FRC, 2015, p.374).

Nevertheless, a Head of corporate reporting of one of the accounting professional bodies in the UK expects that there is no significant difference between old UK GAAP and FRS 102 in terms of the cost (reducing the burden for SMEs). Moreover, he thinks that understandability may be reduced under FRS 102 [6].

The FRC states that Accounting Council has kept in close contact with constituent users, including investors, creditor institutions and the tax authorities, to ensure that financial statements are suited to the needs of the primary users. Also, The FRC states that they will only reject the advice put to it where it is apparent that a significant group of stakeholders has not been adequately consulted (FRC, 2015, p.267). However, by looking at parties involved in standard-setting process, through considering their comment letters on Exposure Draft 48, the regulated companies have been considered in the first place (61%), followed by practitioners by (17%). Whereas the comment letters from the users are just (2%)[7]. Hence, participation by different parties seems to be unbalanced. Moreover, among the commentators was "Shell" which is a listed company. It is known that Shell has many subsidiaries, but does this justify its participation in the

---

were not supportive of the extension of EU-adopted IFRS. Based on this feedback, the ASB decided to amend the IFRS for SMEs (ASB, 2012, p.60) (Revised FRED 46,47 and 48).

[6] An interview on 26 January 2016.

[7] Analysis conducted by the researcher on the FRC Feedback statement about FRED 46 to 48 March 2013.

standard-setting process on behalf of SMEs themselves? In this regard, a Head of corporate reporting of one of the accounting professional bodies in the UK says that FRS 102 setting-process is not driven by feedback and the approach adopted in setting the standard is Top-down rather than bottom-up approach".

From the FRC perspective, Edward Beale (2013), the member of Accounting Council which gave advice to FRC about issuing FRS 102, he:

1. agrees with the Accounting Council that it is disappointing that the Accounting Council has not received more feedback from users, both formal and informal, on whether or not financial statements prepared in accordance with FRS 102 will meet their information needs.

2. does not believe that the consultation responses from industry representative bodies and from organizations which are both preparers and users, can be considered to be input from users since these responses are from a preparer perspective.

3. sees that the informal input received by the FRC staff supports FRS 102 as drafted, and is generally consistent with the input from preparers and industry representative bodies. However, this informal input is inconsistent with the five formal consultation responses received from users and the informal input received personally by Mr. Beale.

4. says that the user desire for clearer, more understandable, information, from which they can derive better predictions about future cash flows on a going concern basis, even at the expense of further divergence from IFRS. Understandability is crucial to confidence in the integrity of financial reporting, and thus maximizing the benefits from accounts.

5. believes that the determination of 'adequate consultation' should be based on the outcome from the consultation process and, regrettably, there has been virtually no formal input from the people who will be using accounts prepared under FRS 102. He is advising that the FRC defer approval of FRS 102 until it has a better understanding of the degree of support from users.

<div align="center">(FRC, 2015)</div>

Understanding the user needs of private company financial statements and why they differ from those of listed companies, is one of the most important issues which have caused a lack of relevance of a number of accounting standards (Blue Panel Report on Standard Setting for Private Companies, 2011). In the UK, 'the way in which little GAAP has emerged suggests that policy makers have taken an arbitrary and piecemeal approach to reform ….. the government's rationale for regulatory relaxation for smaller companies is based on reducing the cost burden, rather than any theoretical considerations….. Moreover, for small companies, reforms are being made without evidence of the needs of the main users of the accounts' (Collis, 2003, p. 2). Moreover, in relation to regulating of SMEs financial reporting, ICAEW (2015) states "we conclude that the evidence available to date is insufficient to develop policies that are soundly based, and that a substantial programme of research is needed. ..... we do not have the evidence to say whether or not current solutions are ideal" (ICAEW, 2015, p.1).

1.2.2.3   How FRS 102 was affected by different sources of regulation

The UK as a European country was not required to adopt IFRS for SMEs but has the option to do so. However, regulators in the UK cannot apply IFRS for SMEs as issued by the IASB because of incompatibilities between IFRS for SMEs and the EU Accounting Directive in recognition and measurement requirements. Therefore, the FRC has modified the IFRS for SMEs substantially, both in terms of the scope of companies eligible to apply it and in terms of the accounting treatments provided (FRC, 2015, p.6).

FRS 102 is a single reporting standard which replaces all extant FRSs, SSAPs and UITF Abstracts. It is based on the IFRS for SMEs, however the text of the IASB's standard has been amended in some significant respects in order to (ICAEW, 2017):

- Comply with the Companies Act
- Allow additional accounting policy choices such that where a policy choice exists in old UK GAAP and this is aligned with IFRS, and
- Reflect feedback during the consultation process.

In making amendments, the FRC incorporated aspects of EU-adopted IFRS wherever possible so that FRS 102 as a whole is an IFRS-based standard (FRC 2013b, p. 10).

1.2.3 Eligibility to apply FRS 102

In 2012 and 2013 the Financial Reporting Council (FRC) revised financial reporting standards for the United Kingdom the and Republic of Ireland. The revision fundamentally reformed financial reporting, replacing almost all extant standards with three Financial Reporting Standards (FRC, 2012, p. 3):

- FRS 100 Application of Financial Reporting Requirements;
- FRS 101 Reduced Disclosure Framework; and
- FRS 102 the Financial Reporting Standard applicable in the UK and Republic of Ireland.

If the financial statements are those of a company that is not eligible to apply the FRSSE, or of an company that is eligible to apply the FRSSE but chooses not to do so, they must be prepared in accordance with FRS 102, EU-adopted IFRS or, if the financial statements are the individual financial statements of a qualifying entity, FRS 101. FRS 101 sets out a reduced disclosure framework which addresses the financial reporting requirements and disclosure exemptions for the individual financial statements of subsidiaries and ultimate parents that otherwise apply the recognition, measurement and disclosure requirements of EU-adopted IFRS. FRS 102 is a single financial reporting standard that applies to the financial statements of companies that are not applying EU-adopted IFRS, FRS 101 or the FRSSE (FRC, 2012, p.3-4).

The FRSSE sets out the financial reporting requirements for smaller companies as defined by company law and companies which are not companies but would otherwise meet the criteria of a small company. From 2016 small companies were required to apply Section 1A of FRS 102 which was issued in July 2015. Regarding micro companies, they are also required from 2016 to apply Financial Reporting Standard (FRS 105) which is based on FRS 102 (FRC, 2012, p. 4).

Individuals of a group (i.e. parent and subsidiaries) which are required to apply IFRS, have the choice to disclose under Reduced Disclosure Framework. The group is required to apply full IFRS where prepare its consolidated accounts, whereas its parent and subsidiaries are required to apply recognition and measurement requirements of IFRS and have the option to disclose according to either FRS 101 (Reduced Disclosure Framework with disclosure exemptions from EU-adopted IFRS for qualifying companies).

Therefore, listed companies are required to apply full IFRS, large private and medium-sized companies required to apply FRS 102 (which based on IFRS for SMEs) or the option to move higher, small companies required to apply Part 1A/FRS 102 or the option to move higher and micro companies are required to adopt FRS 105 which is based on FRS 102. Consequently, the financial reporting standards in the UK have become based entirely on either full IFRS or IFRS for SMEs with the amendments.

1.2.4 The transition from old UK GAAP to FRS 102

From 2015 medium size companies were required to apply FRS 102. Under Section 35 of FRS 102, companies are required to produce reconciliations as part of their transition FRS 102. In the reconciliation statements, companies are required to explain how the transition from UK GAAP to FRS 102 affects their financial position and financial performance. The date of transition is the beginning of the earliest period for which an company presents full comparative information in accordance with FRS 102 in its first financial statements that comply with this standard (FRC, 2014, p. 236). An entity's first financial statements prepared using FRS 102 shall include (FRC 2015, FRS 102, section 35):

(a) A description of the nature of each change in accounting policy.

(b) reconciliations of its equity determined in accordance with its previous financial reporting framework to its equity determined in accordance with this FRS for both of the following dates:

- the date of transition to this FRS; and

- the end of the latest period presented in the entity's most recent annual financial statements determined in accordance with its previous financial reporting framework.

(c) A reconciliation of the profit or loss determined in accordance with its previous financial reporting framework for the latest period in the entity's most recent annual financial statements to its profit or loss determined in accordance with FRS 102 for the same period.

The present study takes advantage of the existence of reconciliation statements, as required by section 35 in FRS 102, in the first-time adoption year. These reconciliations give a unique opportunity to compare financial statements of the year prior to the adoption year (under both old UK GAAP and FRS 102). If there found any changes between these two sets of accounts (the same year under both old UK GAAP and FRS 102), these changes are entirely because of FRS 102 adoption. On the other hand, as a result of some limitations in using reconciliation statements analysis, another method will be used depending on the year of first-time adoption (2015) with the years before. Although the second method tackles the limitations exist in the first analysis (reconciliation statements), the second method also has the economic effects which need to be controlled. This is what led for using difference-in-differences method, as illustrated in the following figure.

Figure 1-1: Methods used in this study to assess the effect of FRS 102 on financial reporting
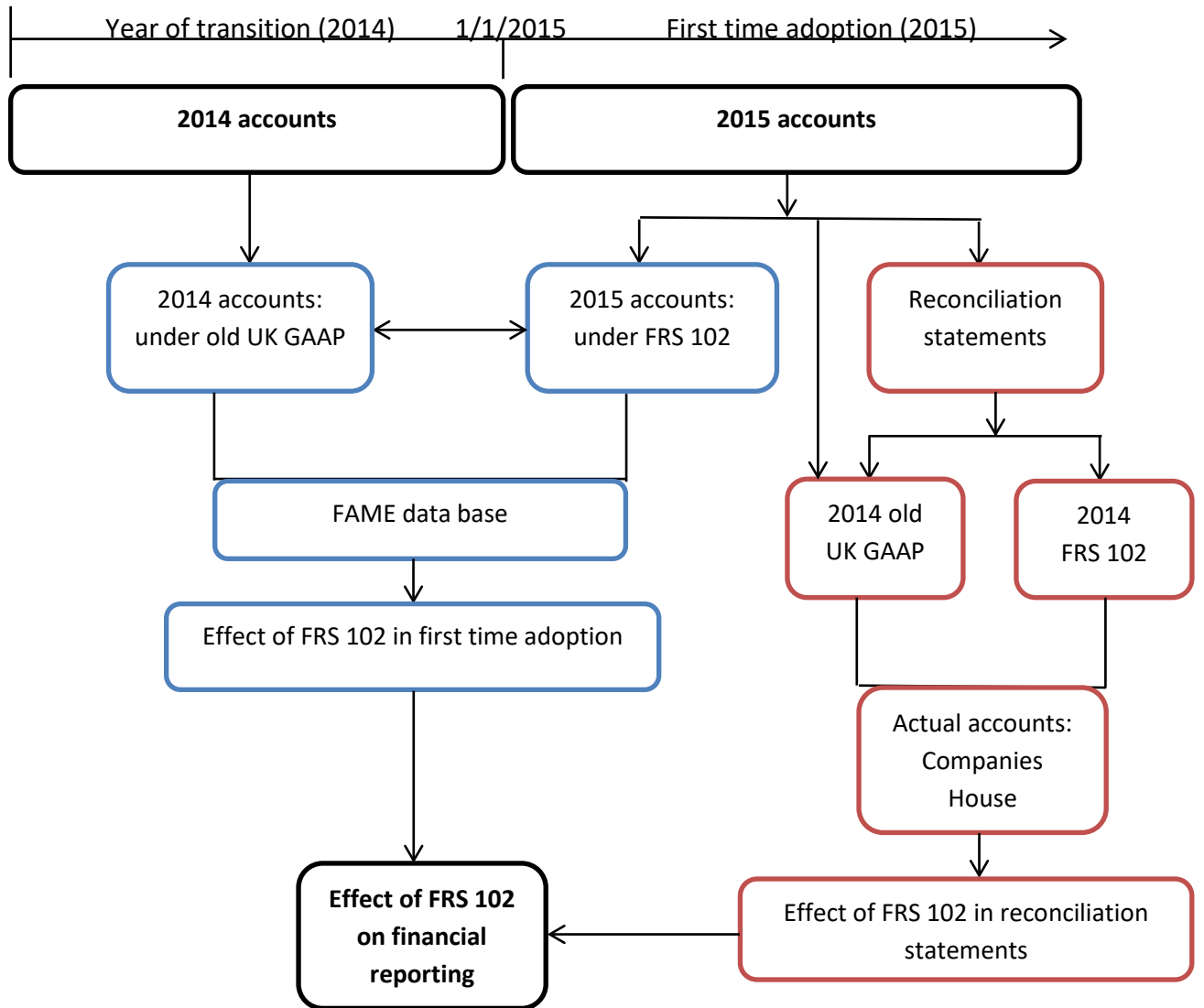
Process in **red** represents 'reconciliation statements' method
Process in **blue** represents 'difference-in-differences' method

1.2.5 Consequences of applying FRS 102

Before 2015, medium-sized companies in the UK were following the UK Generally Accepted Accounting Practice (GAAP), which is a collection of Financial Reporting Standards (FRSs), Statements of Standard Accounting Practice (SSAPs) and Urgent Issues Task Force (UITF) Abstracts. From 1st January 2015 medium-sized companies in the UK are required to apply FRS 102. ICAEW states that ''although there will be cost to business and others at the point of transition, introducing a more comprehensive and coherent framework should act to improve reporting and is likely to mean reduced costs in years to come'' (ICAEW, 2012).

As for practitioners, Pwc states that "the focus of the new UK GAAP has been to reduce complexity and cost for companies, while introducing a coherent and succinct set of standards" (Pwc, 2014). Also, Grant Thornton states that "the introduction of FRS 102 will have a major impact on the financial statements of any company currently preparing accounts under UK GAAP" (Grant Thornton, 2013). Moreover, KPMG states that "the impact will be much wider than just accounting changes; for example, it may affect HR management, property services, pension funds, KPIs and systems and controls" (KPMG, 2013). In addition, Hawsons says that "FRS 102 is the biggest development the in UK accounting for a generation and brings with it significant changes to how UK GAAP accounts will be prepared in the future. The implementation of FRS 102 will have a significant impact on the accounts of many UK companies" (Hawsons, n.d). Table 1-3 presents some of what has been said about the effect of FRS 102 by the regulators, practitioners and professional bodies.

Table 1-3 some of what has been said about the effect of FRS 102

Statement
"FRED 48 is a proportionate solution written specifically for smaller and medium-sized companies whilst maintaining the quality of financial reporting" (ASB, 2012).
"The objective in setting accounting standards is to enable users of accounts to receive high-quality understandable financial reporting proportionate to the size and complexity of the company and users' information needs" (FRC, 2013a). "The benefits of more consistent, transparent information for decision-making (the adoption of an IFRS-based framework will allow better benchmarking and comparison between companies; the enhanced transparency may also lead to a reduction in the cost of borrowing because users have easy access to understandable, comparable information) outweigh the transition costs (FRC, 2013b)". FRS 102 is designed to apply to the general purpose financial statements and financial reporting of companies which are intended to focus on the common information needs of a wide range of users; shareholders, lenders, other creditors, employees and members of the public, for example (FRC, 2013a, 2015). Overall the FRC, and the majority of affected stakeholders, believes that the introduction of FRS 101 and FRS 102 as set out in the framework FRS 100 will have a positive impact on financial reporting (FRC, 2013b).
Regarding the new UK GAAP, the focus has been to reduce complexity and cost for companies, while introducing a coherent and succinct set of standards (Pwc, 2014).
''Although there will be cost to business and others at the point of transition, introducing a more comprehensive and coherent framework should act to improve reporting and is likely to mean reduced costs in years to come'' (ICAEW, 2012).
The introduction of FRS 102 will have a major impact on the financial statements of any company currently preparing accounts under UK GAAP (Grant Thornton, 2013).
The impact will be much wider than just accounting changes; for example, it may affect HR management, property services, pension funds, KPIs and systems and controls (KPMG, 2013).
FRS 102 is the biggest developmentthe in UK accounting for a generation and brings with it significant changes to how UK GAAP accounts will be prepared in the future. The implementation of FRS 102 will have a significant impact on the accounts of many UK companies (Hawsons).

Statement
FRS 102 is based on the IFRS for SMEs which has simplifications that reflect the needs of users of SMEs' financial statements and also take account of cost-benefit considerations. It is intended for companies that do not have public accountability as defined in the IFRS for SMEs. Compared with full IFRS, it is less complex in a number of ways: • topics that are not relevant for SMEs are omitted; • many of the principles for recognising and measuring assets, liabilities, income and expenses in full IFRS are simplified; • significantly fewer disclosures are required; • the IFRS for SMEs has been written in clear, easily translatable language; and • to further reduce the burden for SMEs, revisions are not expected to be made more frequently than once every three years. (IASB, 2015).
In the issues of FRED 48 in the UK, regulators have not mentioned neither how they consider accounting quality in the policy-making process nor what they expect SMEs in the future in terms of accounting quality (Liu, 2014).

1.2.6   Comparison of objectives of IASB and ASB

FRS 102 is based on IFRS for SMEs and "the objective of IASB for developing IFRS for SMEs is based on the nature of users' needs. The purpose is to develop a separate set of standards for companies without public accountability, regardless of size, to enhance comparability across countries. The main objective of ASB in the UK for proposing the FRED 48 (FRS 102) to replace the current UK GAAP, is to enable users of accounts to receive high-quality understandable financial reporting proportionate to the size and complexity of the company and the users' information needs (ASB, 2012). However, the IASB suggested that IFRS for SMEs is for companies without public accountability regardless of size" (Liu, 2014, p.33) and left each jurisdiction to decide the size thresholds.

1.3   Contribution

Due to the lack of the relevant literature and more specific,ally there is no previous study about the impact of FRS 102 on medium size companies, semi-structured interviews with highly experienced practitioners have been conducted to give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102. Additionally, it will help identifying the types of companies that could be affected as a result. These interviews are complementary to the limited literature to narrow down the focus of the study in terms of the areas of impact and the likely affected companies as well as to help in developing the research hypotheses. Afterwards, I conduct our investigation using triangulation between two methods, which are, firstly, 'reconciliation statements' method based on the financial reports for the year prior to FRS 102 implementation. In this year, financial statements are available under both old UK GAAP and FRS 102 which give a unique opportunity to examine the impact of FRS 102. Secondly, I use the 'difference-in-differences' method using the year before and the year after the transition to FRS 102 to achieve the same research objective. Both methods are commonly used in the research area and each method has strength and weakness. The weakness of each method is unique to that method and therefore is not replicated and consequently therefore I take advantage of the using both methods as a form of 'method triangulation'. Moreover, using both methods is considered as a contribution for the present study as the previous studies in the area use only either 'reconciliation statements' method or 'difference-in-differences' method[8].

According to the interviews, although the overall impact of FRS 102 on financial reporting expected to be insignificant, there are variations in the impact according to types of transactions that companies might have. Transactions that are expected to ha ave significant impact on medium size companies are investment property, financial instruments, pension costs, capitalization of borrowing costs, intra group loans and deferred tax. Whereas transactions that are expected to have low/no impact on financial

---

[8] Interviews were analysed using INVIVO software. Data in chapter 4 (reconciliation statements method) is hand-collected data from the actual accounts from Companies House and was analysed by SPSS software. Data in chapter 5 (difference-in-differences method) is from FAME data set and was analysed using STATA software.

reporting are intangible assets, holiday pay, capitalization of development costs and leasing. Also, it is expected to be volatility in profit afthe ter transition to FRS 102. Accordingly, the sample selection in the chapter 4 (reconciliation statements-based analysis) and in the first section of analysis in chapter 5 (difference-in-differences analysis) is based on these areas of expected effect, namely, due to the type of transactions.

The findings from the sample based on the entire population of medium size companies show that the smaller companies have less liquidity but better performance and less risk. This consequently, might create more tax to pay. As for the larger companies have greater liquidity but poorer performance and more risk. This consequently, might make it more difficult to borrow more money from banks and/or might affect the debt covenants. Regarding companies that more likely to have similar transactions, they have less liquidity, less performance and more risk as well as more volatility in profits. Accordingly, the image of this group of companies seems worsened. In terms of industry effect, the findings suggest that the effect of FRS 102 spreads across different industries, and some industries look better than others. Finally, the reasons behind the changes are fair value accounting of investment property and financial instruments as well as the treatments of amortization, pension liabilities, deferred tax and group loans.

Why does it matter? (Accountancy Magazine, 2014, p. 51-53), clarifies how many stakeholders in a company's financial statements view the sorts of changes that will arise from applying FRS 102 for the first time; shareholders "need to understand why reported figures might have changed, and they are likely to be particularly interested in the overall effect as well as the individual details". Banks "small changes might have critical effects on financial ratios and then on debt covenants". Other interested parties are Government, employees, suppliers and competitors (see the general conclusion). Furthermore, the findings will be of interest to the member states of EU that might consider following (or not to follow) the UK as a first case that amended and applied IFRS for SMEs which is not permitted, to be adopted as it is, according to the incompatibilities with EU Accounting Directive.

The present study contributes to the relevant literature (Callao et al., 2007; Aisbitt, 2006; Stenka et al., 2008; Gastón et al., 2010; Lantto et al., 2009; Tsalavoutas and Evans, 2010 and Pálka and Svitáková, 2011) in terms of how changes in accounting regulations affect the way in which performance is reported, and how key financial ratios, which might have impacts on contractual obligations, could be affected. This research area is underrepresented in the academic literature for SMEs and more specifically for medium-sized companies. Moreover, there is no previous evidence about the impact of FRS 102 on financial reporting. Also, the findings are inconsistent with the Anglo-Saxon debate which suggests that UK companies are not expected to be affected by international accounting standards as they have similar environment where these standards have been established. Another contribution is in terms of the research methodology, as two commonly used methods have been triangulated to achieve the same aim and to give the whole picture of the FRS 102 implementation on medium size companies. This is considered as a contribution, as there is no previous study has conducted such triangulation. Furthermore, the findings of this study, after FRS 102 adoption, will give feedback to the regulators especially in the review of the standard as well as being of interest to the main users of financial statements of medium-sized companies regarding the recognizing and understanding the effect of the changes after the transition to FRS 102.

1.4   Thesis outline

The structure of the present thesis, after the present chapter is as follows:

Chapter 2 is the literature review that shows that medium size companies are underrepresented in the research area of accounting regulations and more specifically there is no previous evidence about the impact of FRS 102 adoption on financial reporting.

Chapter 3 is the methodology which can be illustrated by Figure 1-2:

Figure 1-2 next page

As can be seen from the Figure 1-2, interviews with highly experienced practitioners have been combined with the limited literature to help in developing the research hypotheses. Afterwards, I triangulate two quantitative methods, to test the hypotheses, which are the 'reconciliation statements' method (chapter 4) and 'difference-in-differences' method (chapter 5).

Chapter 4 is results from 'reconciliation statements' method which is based on data of financial statements in the prior year to FRS 102 adoption which was called the year of transition (2014). In this method, I have two sets of financial statements for the same year (2014) under both old UK GAAP and FRS 102. Therefore, any differences, between these two sets of financial statements, must be due to FRS 102.

Chapter 5 is results from 'difference-in-differences' method which is based on data of financial statements for two different years; one year before (2014) and one year after (2015) the transition to FRS 102.

Triangulation: although both methods, in chapter 4 and chapter 5, are commonly used in this research area, there is no previous study has used these two methods together. Therefore, the reason to triangulate between these two methods in this thesis is that each method has some strength and weakness which is not exist in the other (see Table 1-1 in this chapter).

Finally, General discussion and conclusion.

Figure 1-2: Research methodology/design
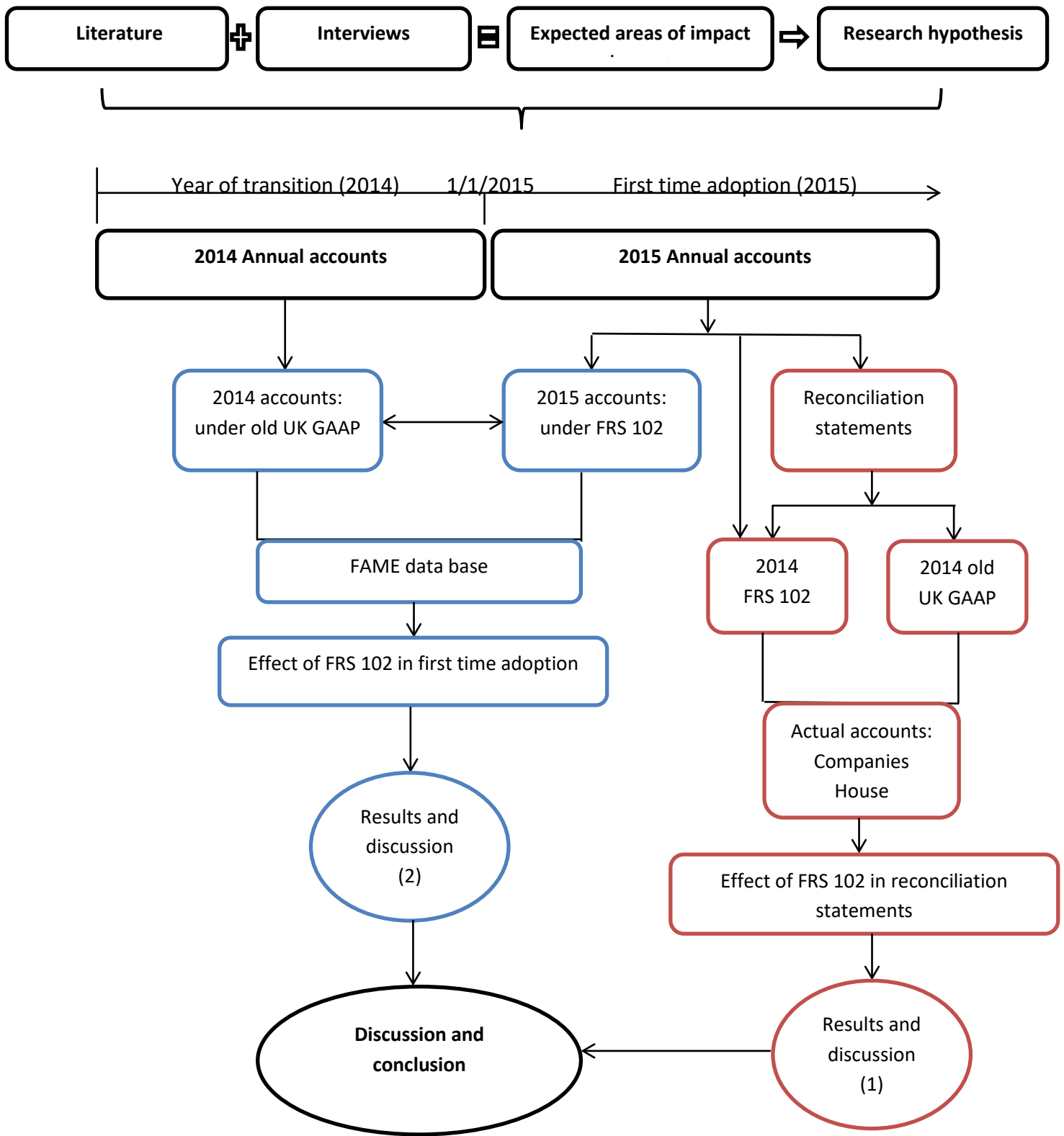
Process in **red** represents 'reconciliation statements' method
Process in **blue** represents 'difference-in-differences' method

2 Chapter 2: literature review and hypothesis development

2.1 Effect of accounting standards on financial reporting

New accounting regulation will invariably result in changes in recognition and/or measurement requirements. Consequently, it is, in turn, expected that these changes will impact on the reporting performance. As a result, changes are likely to be seen in accounting figures and then reflected in financial ratios as performance indicators. The importance of this research area stems from how the application of new accounting regulation may have economic consequences and then how stakeholders could be affected. Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. This, therefore, could for example, cause a technical breach of the terms of loan covenants. The assumption is that the accounting standards affect the quality of information and that the quality of information, in turn, causes economic consequences.

2.1.1 Public versus private companies

Most of the relevant studies about the effect of transition to new accounting standards focus on public companies. For example, Callao et al (2007) examine the effect of IFRS adoption on the comparability and relevance of financial reporting for 26 Spanish listed firms. The comparison was by using Accounting figures and financial ratios under both the old and the new accounting regimes for the year of transition. Based on the analysis of significant adjustments made by firms to adapt their financial statements to international standards, the main causes of the significant variation in current assets were the application of fair value to financial instruments, the reclassification of accounts, and changes in the scope of consolidation. Fixed assets did not vary because the majority of firms opted not to change the fixed asset valuation criterion applied. Cash, solvency and indebtedness ratios, as well as the return on assets and return on equity, varied significantly as a result of the changes in the balance sheet and income statement. The

authors conclude that the economic and financial positions of Spanish firms, reflected in accordance with IFRS, are significantly different from the image presented by local accounting standards.

Aisbitt (2006) analyses of the reconciliations of equity presented as part of the transition from UK GAAP to IFRS by the largest UK companies. While the overall effect on equity is not significant, the effect on individual line items in the balance sheet warrants careful examination. These changes could have important consequences for contractual obligations. Moreover, she states that the level of variability between companies means that this change will demand attention to detail by users of financial statements. Stenka et al. (2008) examined the potential impact of IFRS on a sample of 50 non-financial FTSE100 companies and reported that one of the largest impacts on profit figure was due to investment property. However, the impact was not significant due to the high standard deviation and the reported profit was dominated by adjustments of only four companies.

Gastón et al (2010) studied the effect of IFRS adoption on accounting numbers on 74 UK listed firms and 100 Spanish listed firms in the year of transition (2004) under both old GAAP and IFRS. The authors examined whether there are any significant differences before and after the transition for old UK GAAP to IFRS for accounting figures and financial ratios. The results reveal that IFRS adoption by firms in the United Kingdom reflects higher values on assets and liabilities, lower equity and higher income. As a consequence, their financial statements display inferior financial position, in terms of solvency and indebtedness, but better profitability. The authors expected that impact of IFRS adoption to be less in the UK as it is considered close to the Anglo-Saxon accounting assumption[9]. However, the results show that the quantitative impact has been significant in both countries and it has been higher in the United Kingdom. In this regard, Aisbitt (2006) notes that it is commonly believed that there would be insignificant adjustments to the reported figures under the UK GAAP, as both IFRS and UK GAAP stemmed from the same Anglo-Saxon reporting mode. She invalidates this presumption and argues that all these adjustments are dependent on individual cases and could vary

---

[9] the Anglo-Saxon debate suggests that UK companies are not expected to be affected by international accounting standards as they have similar environment where these standards have been established

from company to company. Lantto et al., (2009) investigate whether there are changes in accounting numbers and key accounting ratios after conversion from local accounting standards to IFRS for 91 Finish firms in the year of transition 2004. The results show that the adoption of IFRS changes the magnitudes of the key accounting ratios of Finnish companies by considerably increasing the profitability ratios and gearing ratio moderately, and considerably decreasing the PE ratio and equity and quick ratios slightly. The results indicate that the increases in the profitability ratios and the decrease in the PE ratio can be explained by increases in the income statement profits. The results also show that the adoption of rules concerning fair value accounting, lease accounting and income tax accounting, as well as rules concerning the accounting of financial instruments, explain the changes in the key accounting ratios. The authors state that their study contributes to the literature investigating the economic consequences of IFRS adoption as well as extending the literature by showing how key financial ratios change after the transition.

Tsalavoutas and Evans (2010) identify and evaluate the impact and materiality of IFRS adoption on companies' financial position, performance and key ratios. They used a sample of 238 Greek small listed companies during the year of transition (2004) under both Greek GAAP and IFRS. The findings reveal that implementation of IFRS did indeed have a significant impact on the financial position and reported performance as well as on gearing and liquidity ratios. As the prior literature indicates that the impact revealed in companies' reconciliation statements can have significant effects on users' decision making, the authors recommend further study that is relevant to standard setters and regulators.

Overall, for companies applying IFRS and more specifically public companies, it seems that changes in accounting regulations have impacts on the way in which companies report. As result, financial ratios are affected after the transition to a new accounting standard without any real change in companies' circumstances or economic conditions. This is can be clearly observed through studies that use reconciliation statements in the year of transition which gives a unique opportunity to conduct such analysis. As this method requires more time and effort because the comparative data is

hand collected, most the relevant studies in this field use quite small samples[10]. Also, fair value accounting can be considered one of the key areas which are responsible for the change after the transition. Another issue is that some studies do not support the Anglo-Saxon debate that UK companies are not expected to be affected by international accounting standards as they are in a similar environment where these standards have been established.

Although the relevant literature about public companies gives some insight as well as the same theoretical framework can be applied for all companies that adopt a new accounting regulation, it is more relevant to narrow down our focus on SMEs to be closer to the context of medium sized companies. This is because public companies and SMEs are different in several ways. For example, they are different in terms of user's needs (IASB, 2004, p. 38), which is a reflection for the differences in the size and ownership structure. Differences between different types of companies not only exist between public companies and SMEs but also within the SMEs themselves. Gupta et al, (2015) state that a huge diversity exists within the broad category of small and medium size enterprises. They for instance, differ widely in their capital structure, firm size, access to external finance, management style, and numbers of employees (Gupta et al, 2015, p. 848). What is more, in terms of the effect of applying differential reporting standards on financial reporting, medium size companies in the UK have the poorest earnings quality among all different classes of companies. Listed companies, small and even micro companies have better earnings quality than medium size companies (Liu and Skerratt, 2014).

As for the effect of transition to new accounting standards on financial reporting, Ali et al., (2016)[11] examine the extent to which the change from UK GAAP to IFRS has affected companies listed on AIM in the UK with the aim to offer explanations on the consequences of the change in accounting regulation for small and growing companies. They used a sample of 115[12] companies listed on AIM. The results demonstrate that the

---

[10] As can be seen the sample size from the mentioned studies are: 26, 100, 50, 74, 100, 91 and 238 companies.

[11] This study analyse the nature and extent of IFRS adjustments detailed in the reconciliation statements required under IFRS 1. All individual adjustments in the reconciliation statements, from IFRS 1, are grouped together according to the relevant standards.

[12] Sub-sample of voluntary adoption 23 and Sub-sample of mandatory adoption 92 companies.

overall impact of IFRS on the profit of AIM listed companies is much smaller than the impact shown in prior literature on large listed companies. Regarding the impact of investment property accounting, authors explain that one possible reason for this small effect could be the accounting policy choices available under IAS 40 and SSAP 19. The major investment property companies are likely to be large firms, listed on the main market. In contrast, only a small number of AIM listed companies have balance sheets dominated by investment properties. A size effect therefore appears to be a probable explanation.

As can be seen, most of previous literature about the effect of adopting new accounting standards on financial statements focuses on listed companies whether on the main Stock Markets or on AIM. The smaller and growing companies listed on AIM in the UK have been less impacted after the transition to IFRS compared to companies listed on the main Stock Market. On the other hand, what about such impact on private companies?

In this regard, Feltham (2011) investigates whether the adoption of IFRS for SMEs would affect the financial reporting of private companies that had historically reported using U.S. GAAP. The author conducts multiple case studies of three medium size companies in the US. He compares key financial ratios between the financial statements prepared according to US GAAP with the restated ones (under IFRS for SMEs). The findings show that in each of the three case studies, adoption of IFRS for SMEs did not significantly influence the financial reporting of U.S private companies, indicating that the communication of financial information would be fundamentally the same using the simplified IFRS for SMEs or the more complex U.S. GAAP.

Jindrichovska, Kubickova and Prsala (2012) as cited in Kubickova and Jindrichovska (2012) compare differences in IFRS and Czech accounting standards (CAS) for a sample of 16 Czech predominantly big or medium sized firms using selected financial ratios. The study has discovered that there were not significant differences resulting from the two accounting regimes. Tsalavoutas and Evans (2010) explore the impact of the transition to IFRS on financial statements of Greek small listed companies. They focus on financial position and reported performance and also on gearing and liquidity ratios from years 2005 and 2006. The results reveal that implementation of IFRS

did indeed have a significant impact on companies' financial position and reported performance as well as on gearing and liquidity ratios.

Pálka and Svitáková (2011) examine the impact of IFRS for SMEs adoption on performance of a selected Czech company. The authors compare chosen financial ratios which were calculated according to the rules of IFRS for SMEs and Czech Accounting Standards. The results show no significant differences after the transition conversion from Czech Accounting Standards to IFRS for SMEs.

It seems that most of previous studies about small and medium-sized companies reveal that there is no significant effect on financial reporting after adopting accounting standards based on the international framework whether IFRS or IFRS for SMEs. Although, the aforementioned studies are about small and mediums size companies which give us the opportunity to focus on the size angle, on the other hand, some of these studies are about SMEs with public accountability which gives rise the ownership effect rather than focusing only the size criterion. Some possible explanations for non-having impact, as mentioned by Ali et al., (2016) could be the accounting policy choices. Another reason may simply be that some SMEs do not have such transactions targeted by the new regulation. For example, the major investment property companies are likely to be large firms, listed on the main market, and only a small number of AIM listed companies have balance sheets dominated by investment properties. Generally speaking, it appears that SMEs are less affected after the transition to international accounting framework compared to large/listed companies. Many studies take advantage of the transition to the new accounting standards and compare the two sets of financial statements, in the year of transition, prepared under both old and new accounting regimes. This gives a unique opportunity to examine the effect of the transition on financial reporting. In addition, most of the studies use commonly used financial ratios as tools which reflect changes in financial statements and consequently used by the main users in making decision.

How the change in accounting regime might convey different information affecting decision making by the main stakeholders?

Studies about effect of accounting standards on financial reporting vary, to some extent, between public/listed companies and private companies. For listed companies, investigations mostly focus directly either on the effect on economic consequences or firstly on accounting numbers and financial ratios and then on economic consequences such as cost of capital, share prices and market value and other stock market reactions. As private companies have different ownership structure and then less public accountability as well as less available market-related data, the relevant studies for private companies investigate the effect on accounting numbers and financial ratios that are commonly thought to affect decision making by the main stakeholders.

2.1.2   Changes in accounting standards and debt covenants

Although reconciliations after IFRS adoption are pure accounting translation, which is not expected to convey information about the future operations of companies, these reconciliations have effects on debt covenants whether in terms of more restrictive covenants or even violation in debt contracts[13] (Christensen et al., 2009, p. 1196). In this regard, Florou and Kosi (2015) illustrate that credit ratings are significantly more sensitive to accounting factors following mandatory IFRS adoption.

More specifically, regarding FRS 102 implementation, a senior manager at PwC says that the calculation of key financial ratios and covenants might be affected (Accountancy Magazine, 2015b). Also, ACCA (2014) argue that a substantial amortization charge arising after the acquisition of intangibles and goodwill is likely to impact on the operating profit margin and reserves of a company and therefore may result in the breach of debt covenants, like PBIT-based interest cover, gearing and dividend cover (ACCA, technical factsheet 181, p. 7). In addition, regarding the expected economic consequences of FRS 102, Accountancy Magazine (2014) illustrates that perhaps the biggest and most troubling effect of any change in accounting policies is the impact that they can have on compliance with bank covenants. Covenants written into loan agreements will often have basic quantitative tests to be met. Common ratios used in this regard, are liquidity ratio, interest cover or a basic requirement to be profitable. For a

---

[13] Aisbitt (2006, p. 117) states that 'while the overall effect on equity is not significant, the effect of the change in convention on individual line items could have important consequences for financial analysis and contractual obligations'.

company that has previously been close to the wire on its covenant compliance, small changes in recognition and/or measurement requirements could have a critical effect on financial ratios (Accountancy Magazine, 2014, p. 51-52). Also, Accountancy Magazine (2015b, p. 62) states that fair value movements, under FRS 102, might impact calculation of key financial ratios and covenants.

Studies on U.K. debt contracts consistently document minimum interest cover as the most common accounting-based covenant to rely on earnings (Christensen et al., 2009, p. 1188). Also, Lys (1984) argues that accounting-based covenants typically restrict leverage, among others, to reduce shareholders' abilities to expropriate firm value at the expense of lenders. Therefore, companies with a significant increase in leverage and/or a significant decrease in Interest Cover and/or a decline in profitability ratio are expected to be exposed to more debt covenants restriction or might even covenant violation.

2.1.3   Reason behind the effect: individual standards/sections

Some studies investigate only the impact on accounting numbers and/or financial ratios without identifying the standard/sub-section within the accounting standard responsible for the change. Other studies extend the investigation to determine which sub-sections of the accounting standard cause the impact on financial reporting. For instance, Callao et al (2007) find that sub-sections, of the accounting standard, responsible for the effect are fair value to financial instruments, the reclassification of accounts, changes in the scope of consolidation - the treatment of revenues and expenses (R&D expenses, asset impairment, etc.). Aisbitt (2006) finds that Pensions and Property plant and equipment accounting are responsible for the effect on financial reporting.

2.2 Expected effect of FRS 102 on financial reporting

As there is no academic literature about the effect of FRS 102 on financial reporting, we combine the general literature in the research area with firstly, technical literature from regulators, practitioners and professionals, and secondly, from interviews conducted with highly experienced practitioners that engaged with FRS 102 adopters. This is to know the areas of expected effects as well as companies that are likely to be affected after the transition to FRS 102. Accordingly, research hypotheses will be developed.

2.2.1 Key differences between old UK GAAP and FRS 102 effect: technical literature

There are several differences in terms of recognition and measurement requirements between old UK GAAP and FRS 102. The following detail the expected impact according to the technical literature from regulators, practitioners and professional bodies:

2.2.1.1 Investment properties

Investment properties were included in the balance sheet at open market value under old UK GAAP. The revaluation differences are included in revaluation reserves and the cost model is not permitted. Under FRS 102, Investment property is carried at fair value through profit or loss, if this fair value can be measured without undue cost or effort, otherwise, it is carried at cost within property, plant and equipment. (PwC, 2015).

2.2.1.2 Financial instruments

Initial and subsequent measurements for non-basic financial instruments are at fair value. All derivatives required to be recognized at fair value with changes in fair value recognized in the profit or loss. At the year end, foreign currency monetary items are required to be translated at the closing rate (i.e. the exchange rate at the reporting date) with the difference taken through profit or loss (FRC, 2013d, p. 3). Several financial instruments would not have been recognised on the balance sheet under old UK GAAP but simply disclosed. For example, derivatives are not recognised if a company does not apply FRS 26, Financial Instruments: Recognition and Measurement. It applied to accounting periods commencing on or after 1 January 2005 for all listed companies

following UK standards, FRS 26 was amended on 25 April 2006. The amendment had the impact of implementing the IAS 39 material dealing with recognition and de-recognition into FRS 26. It was withdrawn for accounting periods beginning on or after 1 January 2015, when FRS 102 became effective[14]. Also, there are some changes in the timing of certain gains and losses (e.g. forward exchange contracts). This category will include instruments such as foreign exchange forward contracts and loans with complex terms (Grant Thornton, 2013).

2.2.1.3 Deferred tax

Under FRS 102 deferred tax is recognised based on a 'timing differences plus' approach which requires recognising deferred tax on asset revaluations and on assets (except goodwill) and liabilities arising on a business combination, revaluation differences on investment properties and unremitted earnings of subsidiaries, associates and joint ventures (PwC, 2015). FRS 102 requires deferred tax to be recognised on all revaluation gains rather than only when there is an agreement to sell a revalued asset[15].

2.2.1.4 Intangible assets

The FRS 102 criteria for recognition of the identifiable assets and liabilities of an acquiree differ from current UK GAAP, where such assets and liabilities have to be capable of being disposed of or settled separately. There will be no equivalent 'separation' requirement in FRS 102, meaning more intangible assets are likely to be identified separately from goodwill (Grant Thornton, 2013, p. 1).

2.2.1.5 Amortization

Regarding the useful economic lives for intangible assets and goodwill, current UK GAAP presumes a maximum useful life of 20 years, but this can be rebutted if a longer or indefinite life can be justified. Under FRS 102, intangible assets and goodwill always have a finite life. If no reliable estimate can be made, the useful life will be limited to a maximum of 10 years (Grant Thornton, 2013, p. 2).

---

[14]https://www.frc.org.uk/accountants/accounting-and-reporting-policy/uk-accounting-standards/standards-in-issue/frs-26-(ias-39)-financial-instruments-recognition

[15]   https://www.icaew.com/archive/members/practice-resources/icaew-practice-support/practicewire/news/the-new-uk-gaap-has-deferred-tax-just-got-bigger 2014

2.2.1.6   Holiday pay

There is no specific requirement to account for holiday pay under current UK GAAP. The relevant accrual or prepayment will be required under FRS 102[16].

2.2.1.7   Pension costs

Multi-employer schemes where an employer is unable to identify its share of the assets and liabilities of a multi-employer defined benefit pension scheme, the scheme will continue to be accounted for a defined contribution under FRS 102, as is permitted by current UK GAAP. However, where a funding agreement is in place to fund a deficit on such a scheme, FRS 102 requires the recognition of a liability in relation to the payments due under that agreement (Grant Thornton, 2013, p. 2). FRS 102 does not permit the pension liability or asset to only be recognised in the consolidated financial statements, as permitted under old GAAP. Under FRS 102 at least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves.

2.2.1.8   Capitalization choices:

FRS 102 includes accounting options for capitalisation of borrowing costs and capitalisation of development costs. Unlike old UK GAAP that requires capitalisation of borrowing costs, under FRS 102 it is a policy choice and the capitalisation choice shall be applied consistently to a class of qualifying assets or all borrowing costs shall be recognised as an expense in P&L during the period. Also, development costs where a company adopts a policy of capitalisation expenditure in the development phase, that the policy shall be applied consistently to all expenditure that meets certain requirements. Expenditure that does not meet certain requirements is expensed as incurred.

2.2.1.9   Intra group loans

After the transition to FRS 102 all financial instruments including loans to and from other group companies need to be initially recorded at fair value, and then either at

---

[16] http://www.scott-moncrieff.com/assets/publications/Key_differences_between_UK_GAAP_FRS_102.pdf

fair value or at amortized cost (Accountancy Magazine, 2016, p. 63). Under old UK GAAP a loan with a below market rate of interest was measured at the amount receivable/payable, FRS 102 requires that such a loan is measured initially at the present value of the future cash flows discounted at a market rate. Any difference arising on initial measurement is subsequently allocated over the term of the loan using the effective interest method (FRC, 2015a, p. 14). For some groups, the impact could be significant if loans are not made on market terms and could result in different values being recognised in each company within the group (Grant Thornton, 2014, p. 4).

2.2.1.10 Lease

Under FRS 102, the 90% test to determine whether or not a lease is categorised as a finance lease no longer exists and as a result it is likely to see a different classification of some leases than before (under old UK GAAP). Also, lease incentives under FRS 102 are spread over the lease term rather than over the shorter period to the first rent review. However, the FRC illustrates that both standards (old GAAP and FRS 102) aim to identify those situations where substantially all the risks and rewards of ownership of an asset are held by a lessee, but use different specific tests or indicators. Therefore, there are unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC, 2013c, p. 4).

2.3   Research gap

It appears that most the relevant literature is about public companies and there is little literature about this research area for SMEs and more specifically for medium size companies. This lack of literature could be because of, for instance, not many countries have required, for example, their SMEs to apply IFRS for SMEs or IFRS. In Europe, IFRS for SMEs is not permitted because of incompatibilities with European Union Accounting Directive. Consequently, the UK has issued FRS 102 which is based on IFRS for SMEs with other amendments based on full IFRS and old UK GAAP. From a search of the literature, there seems to be no previous study about the effect of FRS 102 adoption on financial reporting of medium-size companies in the UK. Therefore, the present study seeks to identify whether significant differences in financial reporting have arisen following the FRS 102 adoption by medium size companies. Hence, the present study focuses on two research gaps, first, the lack of literature regarding medium-size companies regulation, and second, assessing the impact of the new UK GAAP which is considered as one of the biggest changes in accounting regulation in the UK for a generation.

Ali et al (2016) state that 'the UK has maintained sophisticated accounting standards for several decades, and as IFRS are largely principle-based standards, where there is an element of flexibility and judgement in the interpretation and application of certain standards, an impact on UK companies is expected'. On the other hand, there is the Anglo-Saxon debate which suggests that there will not be significant impact after the transition to the international framework (Aisbitt, 2006)[17]. Therefore, it is interesting to explore whether and how the adoption of FRS 102 has influenced the financial reporting of medium size companies.

From the methodology side, reconciliation statements-based analysis and difference-in-differences-based analysis are commonly used in this research area. However, although there are some limitations for the use of each method, there is no study that combines both 'reconciliation statements-based method' and 'difference-in-

---

[17] Aisbitt (2006) also state that "UK accounting practice is generally regarded as coming from a similar model of development to IFRS (the 'Anglo-Saxon' model), so users may not expect companies to make high levels of adjustments to their reported figures (p. 128).

differences-based method' to tackle these limitations. As the weakness of each method is not exist in the other method, we take advantage of the use of both methods as sort of 'method triangulation'.

Also, semi-structured interviews with practitioners have been conducted to be combined with the relevant literature and give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102 as well as the types of companies that could be affected as a result. These interviews are complementary to the literature to narrow down the focus in terms of the areas of impact and the likely affected companies as well as to help in developing the research hypotheses.

After reviewing the relevant literature and conducting the interviews, research hypotheses have been developed. Therefore, research hypothesis for each of the following areas has been stated: Investment property, financial instruments, holiday pay, pension costs, intra group loans, leasing, intangible assets, deferred tax, borrowing costs and development costs.

2.4 Interviews[18]: the purpose and the key findings

As FRS 102 has recently been adopted and consequently there is lack in the relevant literature regarding the impact of FRS 102 on financial reporting, semi-structured interviews have been conducted to be combined with the relevant literature and give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102 as well as the types of companies that could be affected as a result. The interviewees are highly experienced practitioners that have been selected purposively from two large accounting firms and with a head of financial reporting of one the professional bodies in the UK[19].

---

[18] See the letter of ethical approval in Appendix 3.
[19] The interviewees are highly experienced practitioners that have been selected purposively from two large accounting firms and with a Head of Financial Reporting from one of the UK professional accounting bodies. One interviewee is a Head of Financial Reporting from one of the UK professional accounting bodies. The interviewee is also a senior member of the Accounting Expert Group at the European Federation of Accountants and Auditors for SMEs (EFAA), and a member of the reporting policy groups at Accountancy Europe. The interviewee also is a member of the European Commission Expert Group for the evaluation of the IFRS Regulation as well as worked for the International Standards of Accounting and Reporting (ISAR) group at The United Nations Conference on Trade and

Now the findings from the interviews which are the different areas of expected impact as a result of the transition to FRS 102 will be presented item by item according to the interviewees experience in this regard:

2.4.1   Investment properties

Investment properties were included in the balance sheet at open market value under old UK GAAP. The revaluation differences are included in revaluation reserves and the cost model is not permitted. Under FRS 102, Investment property is carried at fair value through profit or loss if this fair value can be measured without undue cost or effort, otherwise, it is carried at cost within Property, plant and equipment. The definition of investment property will change under FRS 102 to include properties leased to other members of the same group in the individual accounts of the lessor but not in the consolidated accounts (Pwc, 2015). Investment property under FRS 102 is a big concern by most of medium-sized companies regardless of the type of the sector. One of the respondents raises this point as follows:

The biggest problem with investment properties there is a big difference with investment properties in putting the movements in value in P&L not in revaluation reserve. … at this stage, that is one of the biggest things (investment property) that everybody moans about in this size of companies

---

Development (UNCTAD), looking into Reporting and Sustainable Development and in developing accounting guidance for SMEs. Another interviewee is a partner and a Head of Financial Reporting at a large accounting firm and a member of the Financial Reporting Council's committee which maintains UK GAAP. As well as this, the interviewee is a member of the Financial Reporting Faculty Board at the ICAEW and a key member of their Financial Reporting Committee (FRC), which issues responses on all financial reporting based consultations from both UK and global regulators and standard setters. Moreover, the interviewee is highly interested in the UK GAAP as well as engaging in financial reporting of medium sized companies and advising the clients regarding FRS 102 issues. The other interview is a partner in charge of Financial Reporting Advisory team in a large accounting firm and is highly experienced in UK GAAP. The interview is a member of the UK GAAP Technical Advisory Group (TAG) having been appointed by the FRC and is also a member of an IFRS working group for EFRAG. The interviewee is also a past Chairman of the Technical Committee of the London Society of Chartered Accountants (LSCA) as well as a member of the ICAEW Valuation Special Interest Group. Moreover, this interviewee engages in financial reporting of with medium size companies and advises the clients regarding FRS 102 issues.

(medium). … it is not about what sector they are, it is about the nature of the transaction. Interviewee 2

However, groups could be the most affected, by investment property under FRS 102, among all different types of medium size companies. This is as a result of the new definition of the investment property under FRS 102 which includes properties let to companies in the same group. This was stated by Interviewee 1:

Investment properties may affect intra-group (investment properties).

Interviewee 1

Also, fair value accounting for investment properties is expected to have some impacts such as more volatility for profits as well as the deferred tax, which is considered as a major issue, as a result of the revaluation. Moreover, some companies move up to IFRS in order to avoid deferred tax resulted from the valuation of their investment properties under fair value. This point has been highlighted as follows:

Creating more volatility for specific companies … the associated deferred tax is a big concern for the relevant companies. ….. Very little companies that use cost model. … The challenge what the fair value is in itself. ….. the associated deferred tax it is one of the areas where companies have potentially considered not to go on FRS 102 because there are more choices in terms of they could go to cost model in IFRS. Interviewee 1

Hence, investment property accounting under FRS 102 is expected to affect any company that has investment properties and groups which their individuals let investment properties to each other as well as property companies as a sector.

2.4.2 Financial instruments

Initial and subsequent measurement for non-basic financial instruments now will be at fair value, and it will come to balance sheet through P&L. Many of these instruments would not have been recognised on the balance sheet under old UK GAAP but simply disclosed. For example, derivatives are not recognised if a company does not apply FRS 26. Also, there are some changes in the timing of certain gains and losses

(e.g. forward exchange contracts). This category will include instruments such as foreign exchange forward contracts and loans with complex terms (Grant Thornton, 2013).

Accounting policy choices: under FRS 102, a company shall choose to apply either: A) the provisions of both section 11 (basic financial instruments) and section 12 (other financial instruments) in full, OR B) recognition and measurement provisions of IAS 39 which distinguishes four measurement categories of financial assets. Some of them under fair value and others measured under amortised costs. OR C) the recognition and measurement provisions of IFRS 9, which contains new rules on the classification and measurement of financial assets and financial liabilities (FRS 102). Financial instruments under fair value may have a significant effect for a wide range of companies, applying FRS 102, regardless of the type of sector as has been illustrated as follows:

You talk about international trade and the need for foreign exchange. Again you see that it's not sector dependent at all. I mean it's virtually everybody does. Loads and loads of companies do some foreign exchange and that is causing people trouble, they have certainly got fair valued instrument on their balance sheet that they didn't have before is quite a big big change. You know you're going from literally before they did nothing. ….. All you did was book only change profit or loss at the end of the transaction whereas now if you're buying a forward contract, you've got to recognize the forward contract on day one in your balance sheet. You've got to book any changes in its value cross the year end and you've got the one at the end and that causes all sorts of fluctuations and influence people that did not have before. … And again I think this is one of those areas where it's I mean it's in in a way it's the next biggest issue to deferred tax. Interviewee 2

Another issue regarding financial instruments under FRS 102 is how to classify a specific financial instrument as basic or non-basic. For example when Interviewee 2 was asked about this issue, the answer was:

Yes it's a massive issue, yes absolutely it is. Interviewee 2

Regarding the expected effect of financial instruments under FRS 102 on financial statements, it is expected to have effects such as more liabilities, cause some losses and could affect loan covenants as had been stated as follows:

Where they are classified as non-basic or complex the effect is anything and massive you know depending what their fair value is it can give them a certain tax liability, it can give them a sudden loss that decimates their balance sheet and makes them breach covenants. Interviewee 2

Although there are some significant impacts for companies with foreign exchange, interest rate swaps and long-term contracts, these impacts for a lot of medium size companies are not significant because they do not have such non-basic transactions. Interviewee 1 highlights this point:

There are fairly big numbers for long dated financial instruments. ….. (the affected companies could be) companies with foreign exchange, interest rate swaps and long term contracts. ….. Some companies start applying hedge accounting but not many. … for lots of medium companies there is very little impact because they do not have derivatives and equity investments. Interviewee 1

2.4.3 Deferred tax

Under FRS 102 deferred tax is recognised based on a 'timing differences plus' approach which requires to recognise deferred tax on asset revaluations and on assets (except goodwill) and liabilities arising on a business combination, revaluation differences on investment properties and unremitted earnings of subsidiaries, associates and joint ventures. Regarding the property revaluation under old UK GAAP, deferred tax is not recognized unless there is a binding agreement to sell the property, which is not required under FRS 102. The main impact on financial reporting is expected to be more deferred tax provisions on balance sheet. Deferred tax is expected to have the most significant impact on financial reporting which represent a real concern for many of preparers of medium size companies. The comment of Interviewee 2 respondent illustrates this issue:

One of the things that none of us were expecting and has turned out to be such a big in real life is deferred tax. … you have got deferred tax on buildings that have not been revalued, is a right nightmare, buildings that are required as a part of acquisition you get another problem and with all of these different things and what they call frozen gains on acquisitions or something. ….. deferred tax is one of the worst. Interviewee 2

However, as deferred tax is as a result of business combinations, revaluation of PPE and revaluation of investment properties, the first two transactions (business combinations, revaluation of PPE) are not common in medium size companies. Therefore, deferred tax is expected to be more affected by investment property revaluation, where applied. This point has been highlighted by both Interviewee 2 and Interviewee 1 respectively. Interviewee 2 states that:

Consolidation, business combination is the big issue, complicated differed tax is the big issue, that is less so in medium (medium size companies), which is probably as a kind of straightforward trading business rather than buying and selling of companies. ….. the medium sized companies, they are mostly large owner managed and they mostly going to be not doing tons of difficult consolidations. Interviewee 2

Also, in this regard, Interviewee 1 says that:

The big impact could be as a result of revaluation of investment properties and PPE. ….. has been a quite significance for some of property groups. … The other ones that have been really impacted the water companies, deferred tax is a major issue. ….. So, deferred tax areas are investment properties and intangibles from business combinations. ….. not a lot of companies who had PPE go down to revaluation route. Interviewee 1

Therefore, the areas that are expected to have impacts on deferred tax are revaluation of investment properties as well as water companies. However, the reason

lies behind the water companies is that these companies have properties which have not been revalued for long time. Interviewee 2 expressed an opinion on this point:

There is an example of an industry that is affected by it but the reason that industry is affected, It is not really that industry that is affected. It is that the long-term properties are affected by deferred tax. Interviewee 2

2.4.4 Intangible assets

The FRS 102 criteria for recognition of the identifiable assets and liabilities of an acquiree differ from current UK GAAP, where such assets and liabilities have to be capable of being disposed of or settled separately. There will be no equivalent 'separation' requirement in FRS 102, meaning more intangible assets are likely to be identified separately from goodwill (Grant Thornton, 2013, p. 1). This change may affect some medium size companies especially those with regular business combinations. This issue has been illustrated by Interviewee 2 and Interviewee 1 respectively. Interviewee 2 comments that:

If you're in this group of companies (medium), yes, it does have some impact. The main impact is that people have got to think harder about acquisitions and about what they're actually buying. … am I buying a trade name, am I buying a customer list, am I buying a brand. Am I buying, whatever. Interviewee 2

Also, Interviewee 1 supports the same view and states that could be some variations in practice and then in the effect between medium size companies according to their size:

The most affected are business combinations and the main issue is how FRS 102 is interpreted and which intangibles to recognize. … There is variation in practice and exemptions because there is different wording under FRS 102 regarding recognition of intangible assets. … Challenging for smaller medium size companies in separating different intangibles from goodwill, it is a new area to enter in and there is variation in the values of this exercise. Interviewee 1

So, the most affected companies are those with business combinations. However, such transactions are not popular among medium size companies, as mentioned by Interviewee 2:

The medium sized companies, they are mostly large owner managed and they mostly going to be not doing tons of difficult consolidations, right?. … medium (medium size companies), which is probably as a kind of straightforward trading business rather than buying and selling of companies. Interviewee 2

2.4.5   Amortization

Regarding the useful economic lives for intangible assets and goodwill, current UK GAAP presumes a maximum useful life of 20 years, but this can be rebutted if a longer or indefinite life can be justified. Under FRS 102, intangible assets and goodwill always have a finite life. If no reliable estimate can be made, the useful life will be limited to a maximum of 10 years (Grant Thornton, 2013, p. 2). FRS 102 requires that intangibles (including goodwill) are amortised over their useful life but to be able to justify where the life is more than five years. On transition this could lead to some large amounts being written off goodwill. This can affect P&L by increasing yearly amortised expenses. Although it seems to be some significant differences after the transition to FRS 102, Interviewee 1 illustrates that there is no that much impact because of the following reasons:

No many intangible assets with indefinite life previously. … the clients just justify the lives that they had. Interviewee 1

Therefore, the transition from old UK GAAP to FRS 102 is not expected to have a significant impact on financial reporting.

2.4.6   Holiday pay

There is no specific requirement to account for holiday pay under old UK GAAP. The relevant accrual or prepayment will be required under FRS 102. The main impact on financial reporting, which will only impact on those companies that did not previously include an accrual for holiday pay, will be increased employee costs hitting P&L and

therefore affecting the results of the company and reducing its distributable profits. Also, it is expected to be an increase in creditors due within one year. The materiality of the effect will vary depending on the number of employees, the size of their holiday entitlement and the timing of the entity's year end in relation to the holiday. However, Interviewee 1 illustrates that there is no a significant impact for the most of the applying companies except in the universities which have significantly been affected. Interviewee 1 states that:

No significant impact. ..... The large majority not. ..... Big impact in universities. Interviewee 1

Therefore, the impact of holiday pay accounting after the transition to FRS 102 is not expected to be significant for medium size companies.

2.4.7   Pension

Multi-employer schemes where an employer is unable to identify its share of the assets and liabilities of a multi-employer defined benefit pension scheme, the scheme will continue to be accounted for a defined contribution under FRS 102, as is permitted by current UK GAAP. However, where a funding agreement is in place to fund a deficit on such a scheme, FRS 102 requires the recognition of a liability in relation to the payments due under that agreement (Grant Thornton, 2013, p. 2). FRS 102 does not permit the pension liability or asset to only be recognised in the consolidated financial statements, as permitted by FRS 17. Under FRS 102 at least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves (FRC a, SEN 10, p. 3). Interviewee 2 comments on this issue and mentions that the company size is crucial in terms of how the impact is significant:

You have got a situation now where the cost has to land into somebody's account. You could have a situation before where you could have a sort of scheme deficit which related to a group scheme that was recognized in the consolidated account but not in the individual accounts or even the holding

company. ….. if you go to big firms, it has more impact, if you go to small firms it has no impact. Interviewee 2

In addition, Interviewee 1 illustrates the type of companies which are expected to be affected by such change as well as the impact on accounting numbers as a result:

The groups are the most affected because they previously used FRS 17.9 (b) exemption where they did not split it in, they had an off balance sheet company level and now it pushed down to the balance sheet. ….. sponsoring companies ….. those who have DB (defined benefit) scheme. ….. more liabilities on balance sheet. Interviewee 1

Therefore, the groups and sponsoring companies (with defined benefit scheme) are expected to be the most affected by pension costs accounting after the transition from old UK GAAP to FRS 102.

2.4.8 Capitalization choices:

FRS 102 includes accounting options for capitalisation of borrowing costs, capitalisation of development costs. Unlike old UK GAAP that requires capitalisation of borrowing costs, under FRS 102 it is a policy choice and the capitalisation choice shall be applied consistently to a class of qualifying assets or all borrowing costs shall be recognised as an expense in P&L during the period. Also, development costs where an company adopts a policy of capitalisation expenditure in the development phase, that policy shall be applied consistently to all expenditure that meets certain requirements. Expenditure that does not meet certain requirements is expensed as incurred. As for software and website development costs, FRS 102 does not address the classification of Software and website costs and therefore each company should develop and apply a suitable accounting policy to classify such costs as tangible fixed assets or as intangible assets. Under old UK GAAP, all such costs should be classified as tangible fixed assets.

2.4.8.1 Borrowing costs

Interviewee 1 comments that:

Big construction companies and properties companies may be affected by borrowing costs choices.

2.4.8.2 Development costs

Development costs may affect Hi-Tech companies; however, the expected impact is low as stated by Interviewee 1:

Hi-tech. ….. Low impact.   Interviewee 1

Regarding Software costs, there are common practices among the applying companies in connection with reclassification between fixed assets and intangible assets. However, it was just sort of simple adjustments and has no impact on accounting numbers. This point was expressed by Interviewee 1:

Another one has been a common adjustment for clients but very noncomplex reclassification between quite computer software from PPE to intangibles, very straight forward. … they have no impact on overall number such reclassification adjustments. Interviewee 1

Moreover, Interviewee 2 says that the overall impact of capitalization choices, after the transition to FRS 102, has no effect at all and companies still do what they were doing under old UK GAAP:

So how is that affecting financial reporting? not at all, people have carried on (to do what they were doing). ….. they have not needed to change. Interviewee 2

2.4.9 Intra group loans

Intercompany accounts have traditionally been an area of slight neglect. It was not rare to see a set of subsidiaries each with a number of balances around the group, reconciled via a tortuous of intercompany matrix and including balances that are years old and unclear in nature. After the transition to FRS 102 all financial instruments including loans to and from other group companies need to be initially recorded at fair value, and then either at fair value or at amortized cost (Lloyd, 2016, p. 63).

Under old UK GAAP a loan with a below market rate of interest was measured at the amount receivable/payable, FRS 102 requires that such a loan is measured initially at the present value of the future cash flows discounted at a market rate. Any difference arising on initial measurement is subsequently allocated over the term of the loan using the effective interest method (FRC, 2015, SEN 16, 2015, p.). For some groups, the impact could be significant if loans are not made on market terms and could result in different values being recognised in each company within the group (Grant Thornton, 2014, p. 4). Although this will cancel out on consolidation, it does make more work in individual accounts. However, there are ways of avoiding this issue and the most common one is to specify in loan agreements that balances are payable on demand, but in this case the borrower has to classify the liability as current (Lloyd, 2016, p. 63). In this regard, Interviewee 2 states the following comment:

> *So what you've got is a situation where you've got amortize costs applying to any non-market rate loan whether director loans, intra company loans whatever. So it is not market rate you have to revalue it, look at the, it is not really valued, it is one way of putting you to discounted cash flow. And this means you end up with a discount on initial recognition and where does that go depends on who you are, whether it is a capital contribution or it is profit, you know, it is capital contribution if you are a holding company (and) it is a profit you are shareholder.* Interviewee 2

However, when Interviewee 2 was asked that "Can you just say you are going to be paying within the year?" the Interviewee 2 said:

> *Yes, exactly. So all you have to do to get out there is say it's for capital market. And the vast majority of cases can get away with that. And it's fine. You don't even have to say I'm going to pay it then you can just say it is theoretically repayable on demand but I'm not going to demand it.* Interviewee 2

Therefore, after an initial measurement at the present value, it is expected to see intra group loans to be subsequently measured at amortised cost. However, there is a way of avoiding the this accounting treatment of intercompany loans under FRS 102 but,

by doing so, what is the expected effect on accounting numbers as a result of classifying such loans as current.

2.4.10 Lease

Under FRS 102, 90% test is no longer exist and as a result it is likely to see a different classification of some leases than was before (under old UK GAAP). And then more judgement may be required to distinguish between the finance and operating lease. The impact on the financial position of a lessee in classifying a lease as a financial lease is mainly derived by the liability recognised at the commencement of the lease term. Also, lease incentives under FRS 102 are spread over the lease term rather than over the shorter period to the first rent review. And this means that the benefits to the lessee or the costs to the lessor may be amortised over a significantly longer period.

However, the FRC illustrates that both standards (SSAP 21 and FRS 102) aim to identify those situations where substantially all the risks and rewards of ownership of an asset are held by a lessee, but use different specific tests or indicators. Therefore, there are unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC b, 2013, p. 4). In this regard, Interviewee 1 states that:

No significant change overall. … the impact is slightly different, no significant reclassification. … Having impact assessment, none of clients came back to reclassify. … most clients apply transition exemptions regarding lease incentive. Interviewee 1

2.5 Overall impact on financial statements

Many of medium size companies do not have transactions targeted by FRS 102 according to their nature and their ownership structure. Interviewee 2 comments on this issue as follows:

Because there are issues like for example the medium sized companies, they are mostly large owner managed [00:04:09] and they mostly going to be not doing tons of difficult consolidations, right? Interviewee 2

Also, Interviewee (3) in the same regard, states that:

Financial statements that can be that is communicated are not look radically different as required by old UK GAAP and by FRS 102. Interviewee 3

In addition, Interviewee 1 expressed his support about what has been said by the other interviewees as follows:

Without presentation changes, the accounts do not really look very different. (Interviewee 1)

Moreover, when interviewer said to Interviewee 1 that "(Casually) when talk to preparers about recognition and measurement issues, they often have not got any". Interviewee 1 said:

Yes. Interviewee 1

Interviewer: It is just sort of change in disclosure and presentation differences?

It was the case. Interviewee 1

Therefore, it is expected to be there some effects as a result of the transition from old UK GAAP to FRS 102; however, due to the interviewees experience it seems that the overall impact on financial reporting is not significant.

2.6 Volatility in profit

It is expected to be more volatility after FRS 102 adoption as a result of using fair value accounting. When Interviewee 2 was asked "If you go to the other side just say does FRS 102 would you expect more variability in profit?", Interviewee 2 replied:

Yes yes yes of course, it's going to be more spikey. Fair values make volatility, definitely more volatility. Interviewee 2.

Also, Interviewee 1 highlights this point regarding the revaluation of investment properties under fair value accounting:

Creating more volatility for specific companies. Interviewee 1

2.7 Expected effect according to company size

Differences between different types of companies not only exist between public companies and SMEs but also within the SMEs themselves. Gupta et al, (2015) state that a huge diversity exists within the broad category of small and medium size enterprises. They for instance, differ widely in their capital structure, firm size, access to external finance, management style, and numbers of employees (Gupta et al, 2015, p. 848).

Gaston et al., (2010) state that transactions of small companies are less complicated and perhaps less affected by the transition; and on the other hand, the largest companies might have more complicated transactions but those companies that have been applying accounting policies closer to IFRS before IFRS adoption found not affected (Gaston et al., 2010, p. 310). Therefore, in the case of medium-sized companies in the UK, they have been applying old UK GAAP and then there are several key differences between the old UK GAAP and FRS 102. Accordingly, it is expected for larger medium-sized companies to be affected, after the transition, as they are expected to have more complicated transactions and at the same time they have been applying old UK GAAP, and only a very small number[20] of medium size companies have been applying IFRS. Also, as there are some areas of FRS 102 that whose impacts might depend on company size, analysis based on company size will be conducted. Of those areas, according to the interviews conducted with practitioners, are non-basic financial instruments, deferred tax, holiday pay accruals, pension accounting, borrowing costs and amortization.

 gives details about the effect of FRS 102 according to company size.

It is generally expected that larger companies have more complex transactions and then they more likely to be affected. However, some certain groups of companies are more likely to be affected by size, such as larger companies with business combination more likely to be affected by deferred tax. Larger groups are more expected to be affected by pension accounting, and big construction companies by borrowing costs as well as groups are expected to be affected by treatment of group loans.

---

[20] Less than 3% according to FAME database.

Table 2-1: FRS 102 effect according to company size

Key differences	Size effect
Investment Properties	**Everybody** moans about in this size of companies (medium) (Interviewee 2). - While groups that focus entirely on real estate are likely to have examined their options in great detail already, there is also a **significant number of companies** and groups that hold just one or two properties as Investment Properties (Accountancy Magazine, 2015a, p. 61).
Financial Instruments	It is not sector dependent at all. I mean it's virtually **everybody** does (international trade and the need for foreign exchange) (Interviewee 2). However, another respondent stated that, for lots of medium companies there is very little impact because they do not have derivatives and equity investments (Interviewee 1).
Deferred tax	Deferred tax on assets arises from business combination and on investment property is a big concern (Interviewees 1 and 2). On business combination; might affect **large** companies (Interviewee 2). On Investment Property; might affect **any** company (Interviewees 2).
Holiday pay	The materiality of the effect will vary **depending, among others, on the number of employees**. Hence, larger companies expected to have more impacted although the impact is expected to be significant only in universities and the overall effect expected to be low (interviewee 1).
Pension costs	If you go to **big firms**, it has more impact; if you go to small firms it has no impact'. (Interviewee 2).
Borrowing costs	**Big** construction companies and properties companies may be affected by borrowing costs choices (Interviewee 1).
Development costs	-
Intra group loans	Groups
Lease	-
Intangibles	Consolidation, business combination is the big issue, complicated differed tax is the big issue, that **is less so in medium** (medium size companies), which is probably as a kind of straightforward trading business rather than buying and selling of companies. ….. the medium sized companies, they are mostly large owner managed and they mostly going to be not doing tons of difficult consolidations (Interviewee 2). **Challenging for smaller** medium size companies in separating different intangibles from goodwill. It is a new area to enter in and there is variation in the values of this exercise. (Interviewee 1).
Amortization	**Challenging for smaller medium size** companies in separating different intangibles from goodwill. It is a new area to enter in and there is variation in the values of this exercise. (Interviewee 1).

2.8 Individual sections[21] of FRS 102 and the expected effects on financial ratios

The following tables illustrate how different parts of FRS 102 might affect different financial ratios. For each financial ratio, there is a table which clarifies the expected relationships between each ratio with the relevant items of financial statements that reflect which sections of FRS 102 have caused the effects on the examined financial ratios. Starting with current ratio, demonstrates the expected effects between financial statements items and current ratio.

Table 2-2: FRS 102 and the expected effects on Current Ratio (CR)

Differences	Current assets	Current liabilities	CR
Financial Instruments	Look at the last column: (CR)	"Recognizing derivatives could have a critical effect on ratios involving liabilities" (Accountancy Magazine, 2014, p. 51).	Now that forward contracts will be recognised at fair value, this could affect the balance sheet figures used to calculate the current ratio (Grant Thornton, 2014, p. 7), New UKGAAP, Transition to FRS 102: what are the time critical issues?. Where Financial Instruments are classified as non-basic, the effect is anything and massive, depending what their fair value is, it can give them a certain liability, it can give them a sudden loss that decimates their balance sheet (Interviewee 2).
Holiday pay	-	Expected to be an increase in creditors due within one year (accruals) (ACCA, n.d, technical factsheet 181, p. 19) -	No significant impact, The large majority not. Big impact in universities (Interviewee 1).
Intra group loans	-	Borrowers have to classify the liability as current (payable on demand) if they want to avoid recognizing intra group loan on market terms (Accountancy Magazine, 2016, p. 63).	
Lease*	It is unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC, 2013c, p. 4). No significant change overall ….. the impact is slightly different, no significant reclassification. ….. Having impact assessment, none of clients came back to reclassify. ..… most clients apply transition exemptions regarding lease incentive (Interviewee 1).		

* Note: this applies for all of the studied financial ratios, and therefore, this section will not be repeated for the rest of financial ratios later on.

---

[21] FRS 102 has 35 sections. Every section deals with presentation and/or recognition and/or measurement of a certain type of the company transactions.

As for return on equity, presents the likely reasons that might cause changes to return on equity ratio.

Table 2-3: FRS 102 and the expected effects on Return on Equity (ROE)

Key differences	Earnings	Equity
Investment Properties	Volatility ↓↑ (Interviewee 1), & Accountancy Magazine, 2014, p. 52).	↑ in Retained earnings
Financial Instruments	Fluctuations ↑↓ (Interviewee 2) - it can give them a sudden loss (Interviewee 2) – ↓ "fair value movements on derivatives could send profit levels below where they need to be" (Accountancy Magazine, 2014, p. 52).	Could cause a reduction in revenue reserves to recognize derivatives at fair value for the first time (Accountancy Magazine, 2015b, p. 62).
Holiday pay	The main impact will be increased employee costs hitting the profit or loss and then reducing its distributable profits (ACCA, technical factsheet 181, p. 19).	
Pension costs	More charges on P&L: pension costs before = contributions paid. Now, = contributions paid + interest on the scheme deficit (Accountancy Magazine, 2016b, p. 49).	At least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves (FRC, 2013f, p. 3).
Borrowing costs	Might more charges on P&L for large construction companies.	
Development costs	Whereas development costs may affect Hi-Tech companies, however, the expected impact is low (Interviewee 1).	
Intra group loans	May increase taxable profits of the lender by imputed interest income (Accountancy Magazine, 2013, p. 61). A discount on initial recognition, depends on who you are, whether it is a capital contribution, or it is profit, it is capital contribution if you are a holding company (and) it is a profit you are a shareholder (Interviewee 2) - The impact could be significant if loans are not made on market terms and could result in different values being recognized in each company within the group (Grant Thornton, 2014, p. 4).	Might lead to a reduction in distributable reserves because of transition adjustment to recognize loans at fair value (Accountancy, 2015b, p. 63).
Intangibles	More recognition and reclassification, and more amortization. For material assets, such as goodwill acquired in a business combination, that may determine a significant amortization charge hitting the P&L. Also, a substantial amortization charge arising after the acquisition of intangibles and goodwill is likely to impact on the operating profit margin and reserves of a company and therefore may result in the breach of debt covenants, like PBIT-based interest cover, gearing and dividend cover (ACCA, technical factsheet 181, p. 7). Regarding intangibles, 'If you're in this group of companies (medium), yes, it does have some impact' (Interviewee 2).	
Amortization	More amortization during shorter periods of time (less useful lives) might reduce P&L. However, no many intangible assets with indefinite life previously. … the clients just justify the lives that they had (Interviewee 1).	

Regarding Gearing, discusses the possible parts of FRS 102 that might cause the change.

Table 2-4: FRS 102 and the expected effects on Gearing

Key differences	Labilities	Equity
Investment Properties	↑ in deferred tax provisions (Interviewee 1, for example).	Much more ↑ in retained earnings than ↑ in associated deferred tax.
Financial Instruments	↑ tax liability (Interviewee 2) – "recognizing derivatives could have a critical effect on ratios involving liabilities" (Accountancy Magazine, 2014, p. 51).	
Deferred tax	Deferred tax (provisions) on asset revaluations and on assets (except goodwill) and liabilities arising on a business combination, revaluation differences on investment properties and unremitted earnings of subsidiaries, associates and joint ventures (PwC, 2015).	
Pension costs	More liabilities on balance sheet' (Interviewee 1).	Impact on distributable reserves (FRC, 2013f, p. 3).
Intangibles	A substantial amortization charge arising after the acquisition of intangibles and goodwill	
Amortization	is likely to impact on the operating profit margin and reserves of a company and therefore may result in the breach of debt covenants, like PBIT-based interest cover, **gearing** and dividend cover (ACCA, technical factsheet 181, p. 7). Regarding intangibles, 'If you're in this group of companies (medium), yes, it does have some impact' (Interviewee 2).	

As to Interest Cover, illustrates the expected reasons behind the impact as follows;

Table 2-5: FRS 102 and the expected effects on Interest Cover (I Cover)

Key differences	Profit before interest	Interest paid
Investment Properties	↑↓ volatility (Interviewee 1), & (Accountancy Magazine, 2014, p. 52) – I Cover might be breached by fair value movements on IPs (Accountancy Magazine, 2014, p. 53).	
Financial Instruments	"fair value movements on derivatives could send profit levels below where they need to be" (Accountancy Magazine, 2014, p. 52).	
Holiday pay	The main impact will be increased employee costs hitting the profit or loss and then reducing its distributable profits (ACCA, technical factsheet 181, p. 19).	
Pension costs	More charges on P&L: pension costs before = contributions paid. Now, = contributions paid + interest on the scheme deficit (Accountancy Magazine, 2016b, p. 49).	
Borrowing costs	↓ Might more charges on P&L for large construction companies.	
Development costs	Whereas development costs may affect Hi-Tech companies, however, the expected impact is low (Interviewee 1).	
Intra group loans	↑ for lenders - ↓ for borrowers	↑ for borrowers
Intangibles	A substantial amortization charge arising after the acquisition of intangibles and goodwill is likely to	
Amortization	impact on the operating profit margin and reserves of a company and therefore may result in the breach of debt covenants, like **PBIT-based interest cover**, gearing and dividend cover (ACCA, technical factsheet 181, p. 7). Regarding intangibles, 'If you're in this group of companies (medium), yes, it does have some impact' (Interviewee 2).	

To sum up, depending on aforementioned materials from the following sources;

- Regulators: FRC; Staff Education Notes (SENs: 1-16), impact assessments and other materials;

- Materials from Professional bodies such as ICAEW and ACCA;

- Practitioners views and assessments; from the big 4 and Accountancy Magazine;

- Interviews conducted with highly experienced practitioners that engaged with medium-sized companies after FRS 102 adoption,

The expected impact of FRS 102 on financial ratios can be summarized as in .

Table 2-6: Summary of expected effect of FRS 102 on financial ratios

Key differences	CR	Profitability	Gearing	I Cover
Investment Properties	-	↑↓	↓	↑↓
Financial Instruments	↓ or ↑	↓↑ or ↓	↑ or ↓	↓↑ or ↓
Deferred tax	-	-	↑	-
Holiday pay accruals	↓	↓	-	↓
Pension costs/liabilities	-	↓	↑	↓
Borrowing costs	-	↓	-	↓
Development costs	-	-	-	-
Intra group loans	↓	↑ for lenders ↓for borrowers	-	↓for borrowers
Lease	-	-	-	-
Intangibles*	-	↓	↑	↓
Amortization	-	↓	↑	↓

* Recognition, reclassification and impairment.
(Research hypotheses, in this section, based on this table)

2.9 Industry effect

The underlying logic is that firms in the same industry have similar operational properties and face similar economic shocks, whereas firms in different industries may have different operational properties and face different industry-specific shocks. This definition is also supported by the common practice of analysts using firms in the same industry as benchmarks when analysing a firm's financial statements (Yip and Young, 2012, p. 1768).

After transition to IFRS, Gaston et al., (2010) compare the impact of the transition for both Spanish and UK companies. They found that variables such as current ratio and indebtedness depend on the firm activities. They think that it may be due to the different financial structure of the firms in each sub-sample and to the different nature of the activities carried out by them (Gastón et al., 2010). It is possible that the accounting issues of industrial activities have been more affected by the accounting change in Spain. However, the authors state that the differentiation between industrial and commercial or services activity is not relevant to the impact of IFRS on the financial reporting in the United Kingdom.

In this regard, Aisbitt (2006) argues that all adjustments, after transition from old UK GAAP to IFRS, are dependent on individual cases and could vary from company to company. Moreover, she states that there were no obvious industry effects (Aisbitt, 2006) [22].

However, illustrates industries that might be affected after FRS 102 application. As there is no previous evidence regarding the impact of FRS 102 on financial reporting, the following literature is based on views and experience of the most interested parties in the UK GAAP, such as regulators, professional bodies and practitioners as well as interviews conducted with highly experienced practitioners that engaged with medium-sized companies after FRS 102 application.

---

[22] Whether in the academic or non-academic/technical literature, there is no clear focus on industry to explain the changes caused by the transition. Regarding the non-academic literature, I have looked at the Staff Education Notes (from 1-16) issued by FRC to explain the key differences and expected impact of FRS 102 adoption. Also, I have looked at about 35 technical articles issued by Accountancy Magazine about FRS 102 (years from 2013-2017) and there is no focus on specific industries to explain the effect of FRS 102. They rather focus on the transactions, which is similar, to some extent, to what has been said by the interviewees. Generally speaking, one transaction can be found in many or may be all industries; on the other hand, a specific industry might have most of transactions targeted by FRS 102. For example, Property and Construction sectors can be highly affected by Investment properties - Property, Plant & Equipment (PPE) – Inventory - Revenue - Borrowing costs - Operating lease incentives - Financial instruments (Mercia, 2016, p. 3)[22]. On the other hand, companies with revaluation reserves are from all the 16 industries of medium size companies in the UK (according to an unreported analysis based on FAME data base).

Table 2-7: FRS 102 and Industry effect

Key differences	Industry effect
Investment Properties	**Real estate** – Any other sector (Interviewee 2) - One of the key areas of expected impact is IPs, where there is considerable variation in accounting across GAAPs. While groups that focus entirely on real estate are likely to have examined their options in great detail already, there is also a **significant number** of companies and groups that hold just one or two properties as Investment Properties (Accountancy Magazine, 2015a, p. 61).
Financial Instruments	It is not sector dependent at all. I mean it's virtually **everybody** does (Interviewee 2). **Real estate** companies might be affected (Deloitte, 2013) https://www.iasplus.com/en-gb/publications/uk/point-of-view/2013/new-uk-gaap-real-estate
Deferred tax	'The big impact could be as a result of revaluation of investment properties and PPE. ….. has been a quite significance for some of **property groups**. … The other ones that have been really impacted the **water companies**, deferred tax is a major issue; (Interviewee 1). – Other companies depending on their transactions (PwC, 2015) -
Holiday pay	**University**/higher education (Interviewee 1).
Pension costs	**Groups**
Borrowing costs	**Big construction companies and properties companies** may be affected by borrowing costs choices (Interviewee 1).
Development costs	Whereas development costs may affect **Hi-Tech** companies, however, the expected impact is low (Interviewee 1). -
Intra group loans	**Groups**
Lease	**Retail** (BDO, 2014) – **Manufacturing** and **Property & construction** (Mercia, 2016).
Intangibles	**Retail** (BDO, 2014) – **Manufacturing** (Mercia, 2016) -

However, a certain sector could be affected by several transactions. For example; retail companies might be affected by transactions such as lease, business combination, intangibles, borrowing costs, investment property, employee benefits and pension scheme accounting and deferred tax (BDO, 2014). http://www.bdo.ie/getattachment/9fb9754a-bb47-4092-8576-cd1deb59fb24/FRS-102-Retail-and-Property.pdf.aspx

Mercia (2016) illustrates that different sectors may be affected by different transactions. For example;

- Manufacturing companies; might be (moderately to highly) affected by property, plant & equipment (PPE), intangibles (R&D), operating lease incentives and foreign currency.

- Farming companies; might be moderately affected by investment properties, property, plant & equipment (PPE) and biological assets & agricultural produce.

- Property & construction companies; might be highly affected by investment properties, property, plant & equipment (PPE), borrowing costs, operating lease incentives, financial instruments.

- Tourism and leisure companies; might be moderately affected by investment properties and foreign currency.

Also, there are other sectors which are expected to have low impact such as;

- Transport & logistics; might be affected by property, plant & equipment (PPE) and foreign currency.

- Retail companies; might be affected by Operating lease incentives, Employment benefits, foreign currency.

  http://www.mercia-group.co.uk/Downloads/1454062847_Seven_Sectors.pdf

2.10 Research hypothesis

The evidence suggests that changes in accounting standards are expected to have consequences in the way in which performance is reported. In other words, the content of the financial statements is contingent on the accounting standards that the company has elected to follow; therefore, changes to the underlying accounting standards may affect the information in financial statements. After reviewing the relevant literature whether academic or the technical literature, there is no evidence of previous studies about the impact of FRS 102 on financial reporting of medium size companies in the UK. In addition, the conducted interviews suggest that FRS 102 adoption is expected to have impacts on financial reporting of some medium size companies, although the expected impact on average is little. Accordingly, the null research hypothesis can be stated as follows:

H0: The transition from old UK GAAP to FRS 102 has not had a significant effect on financial ratios of medium size companies in the UK

H0: The change in **investment property** accounting from old UK GAAP to FRS 102 has a significant impact on the financial reporting of medium size companies in the UK

H0: The change in **financial instruments** accounting from old UK GAAP to FRS 102 has a significant impact on the financial ratios of medium size companies in the UK

H0: The change in **deferred tax** accounting from old UK GAAP to FRS 102 has a significant impact on the financial ratios of medium size companies in the UK

H0: The change in **intangible assets** accounting from old UK GAAP to FRS 102 has no significant impact on the financial ratios of medium size companies in the UK

H0: The change in **holiday pay** accounting from old UK GAAP to FRS 102 has no significant impact on the financial ratios of medium size companies in the UK

H0: The change in **pension costs** accounting from old UK GAAP to FRS 102 has a significant impact on the financial reporting of medium size companies in the UK

H0: The change in **capitalization accounting** from old UK GAAP to FRS 102 has no significant impact on the financial reporting of medium size companies in the UK

H0: The change in **intra-group loans** accounting from old UK GAAP to FRS 102 has a significant impact on the financial reporting of medium size companies in the UK

H0: The change in **lease** accounting from old UK GAAP to FRS 102 has no significant impact on the financial reporting of medium size companies in the UK

H0: The transition from old UK GAAP to FRS 102 has not had a significant effect on **profit volatility** of medium size companies in the UK

3   <u>Chapter 3: Methodology</u>

3.1   Introduction

FRS 102 has recently been implemented and consequently the relevant literature in this regard still very little. There is no previous/academic evidence regarding the effects of FRS 102 on financial reporting of medium size companies[23]. As a result of the lack in the literature, semi-structured interviews have been used to triangulate with the limited literature and help in developing the research hypothesis. Subsequently, firstly, the financial reports of medium size companies in the year of transition have been used to investigate the effect of the FRS 102 adoption on financial reporting. The 2014 financial reports have the advantage of having the same financial statements prepared under both old UK GAAP and FRS 102. This is a reconciliation-statements-based method. Secondly, as there are some limitations, for the aforementioned method, I used 'difference-in-differences method (DID) that compares 2014 financial reports (under old UK GAAP) with 2015 financial reports (under FRS 102). These two methods, 'reconciliation statements' and 'difference-in-differences', have been used, in the present study, to give the whole picture of the FRS 102 effects. Most, if not all studies in this area either use 'reconciliation statements' method for the year of transition or use 'difference in differences' method comparing the years before and after the standard implementation. Although there are some limitations for the use of each method, there is no study that combines these two methods to tackle these limitations. The weakness of each method is unique to that method and therefore is not replicated and consequently therefore I take advantage of the using both methods as a form of 'method triangulation'.

---

[23] Generally, a company qualifies as 'medium-sized' in its first accounting period if it fulfils the conditions (thresholds) in that period. In any subsequent period a company must fulfil the conditions in that period and the period before (Companies House, 2016). According to Companies Act 2006 (Amendment, 2008), an entity should satisfy at least two of three criteria to be qualified as medium. These criteria are Turnover: more than £6.5 M to £25.9 M, Balance sheet: more than £3.26 M to £12.9 M, and number of employees: more than 50 to 250 (Companies Act 2006).

3.2 Chapter outline

The next sections of the present chapter are as follows:

Interviews

- Number of interviews
- Interviewees

Effect of FRS 102 in the first-time adoption reconciliation statements (prior year)

- Sampling
- Data collection
- Measuring the effect on financial reporting (financial ratios)
- Data analysis

The effect of FRS 102 in the first-time adoption year: DID design

- Data collection
- Measuring the effect on financial reporting (financial ratios)
- Data analysis

Method triangulation

Definition of Medium size companies

Conclusion

Figure 3-1 displays the research methodology of the present study starting from interviews conducted with practitioners up to the final conclusion.

Figure 3-1: Research methodology/design
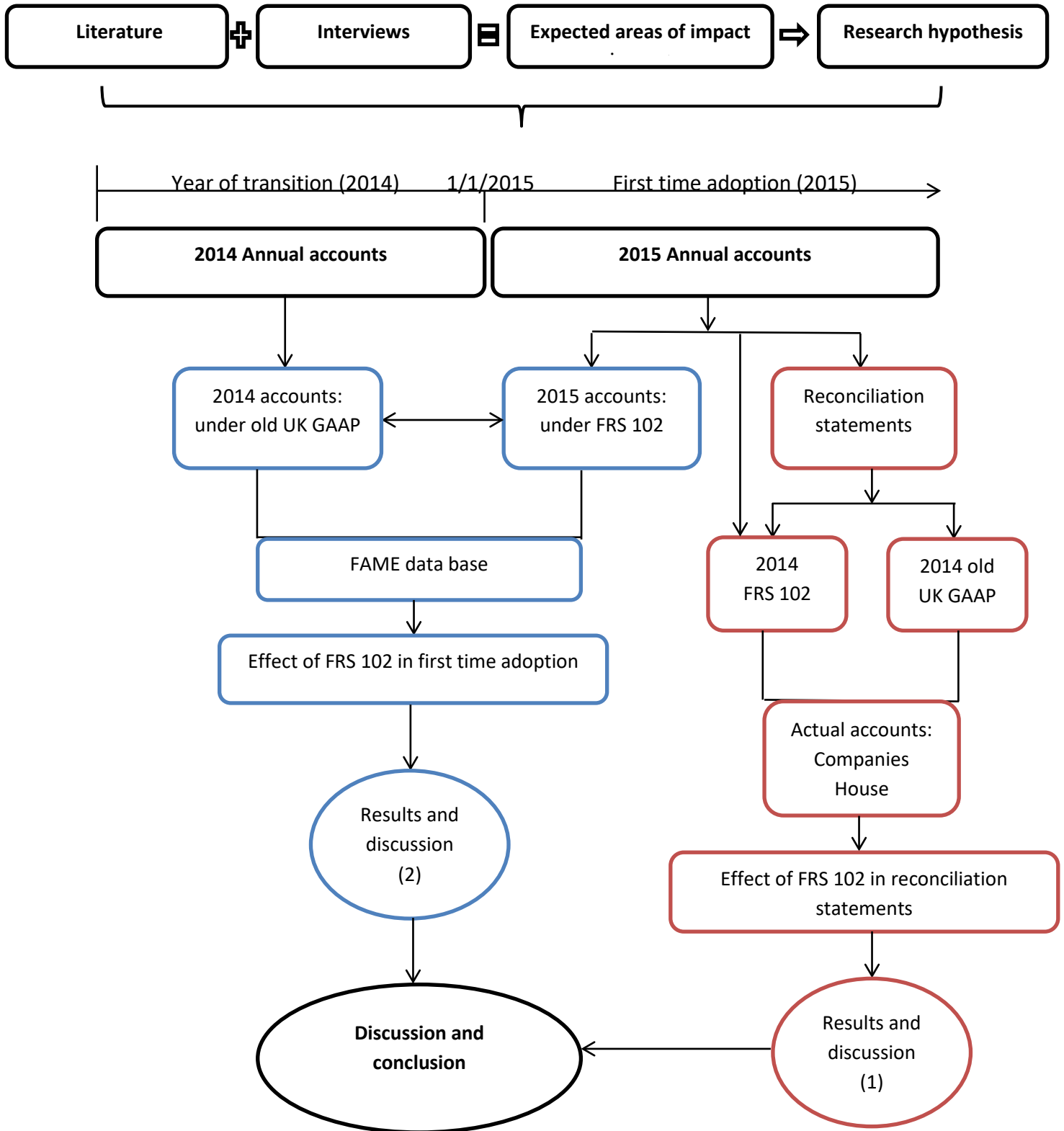
Process in red represents 'reconciliation statements' method
Process in blue represents 'difference-in-differences' method

Figure 3-1 describes the research methodology starting with interviews with practitioners with the purpose of triangulation with the poor literature about FRS 102 implementation. This is to narrow down the focus of the study and help in developing the hypotheses. In the next stage, I take advantage of having the unique opportunity of restating the year prior to FRS 102 adoption (the transition year) to compare the financial ratios for the same year (2014) under both old UK GAAP and FRS 102 using 'reconciliation statements' as a common method in the field. As there are some limitations for using this method, I use another common method (difference-in-difference design) for the years before and after FRS 102 adoption. Accordingly, each method will have its own results and finally, both methods 'reconciliation statements' and 'difference-in-differences design' will be taken together to give the whole picture of the impact of FRS 102 on financial reporting.

The following points describe different stages/sides of the research design of the present study.

3.3 Interviews

Some research is designed to test a prior hypothesis, while other research seeks to explore meaning and perceptions to gain a better understanding and ∕ or generate hypotheses. The latter encourages the interviewee to share rich descriptions of phenomena (DiCicco-Bloom, 2006). When the researcher has not yet formulated the research question and objectives, an interview or interviews may help to achieve this (Saunders et al, 2009). In-depth interviews can be used to support or explain in more detail the results from a quantitative approach. On the other hand, interviews can be used to help generate research hypotheses. This is through better understanding the research context through considering the interviewee responses.

Accordingly, due to the lack of the relevant literature, semi-structured interviews with practitioners have been conducted to triangulate with the relevant literature and give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102. Additionally, it will help identifying the types of companies that could be affected as a result. These interviews are complementary to the literature to narrow

down the focus in terms of the areas of impact and the likely affected companies as well as to help in developing the research hypotheses.

The interviewees were highly experienced practitioners that have been selected purposively from two large accounting firms who deal with a large proportion of medium size business companies and one interviewee is a Head of Financial Reporting from one of the UK professional accounting bodies. Considerations given for the selection of these interviewees was their knowledge, expertise, and engagement with accounting regulations and FRS 102 adopters. The interviews have been analysed using NVIVO software according to the relevant themes which represent the areas of expected effect. After knowing the likely areas of impact as a result of the transition from old UK GAAP to FRS 102, both the FAME database and Companies House Website have been used for data collection.

3.3.1   Number of interviews

The number of interviews was based on the following considerations:

- There is no rule regarding the number of interviews (Baker et al., 2012, p. 16);
- The interviews are not the main data for the present study; in other words, the purpose of the interviews was not investigating what the population of practitioners thinks but it to give some idea about where impact of FRS 102 adoption could be and which companies could be affected.
- The knowledge background which has already been known about the impact of FRS 102 adoption (from the technical literature),
- The interviewees agreed on most of the key issues related to the areas of expected effect,
- These interviews are complementary to the theoretical and technical resources recently available about the impact of FRS 102 adoption;
- These interviews are preliminary to develop the research hypotheses and to validate the data.
- The highly experienced interviewees and their interest, knowledge and expertise.

3.3.2 Interviewees

The interviewees were highly experienced practitioners that have been selected purposively according to their knowledge, expertise, and engagement with accounting regulations and FRS 102 adopters. The interviewees were from two large accounting firms who deal with a large proportion of medium size business companies and one interviewee is a Head of Financial Reporting from one of the UK professional accounting bodies. This interviewee also is Chair of the Accounting Expert Group of the European Federation of Accountants and Auditors for SMEs (EFAA), and a member of the reporting policy groups at Accountancy Europe. The interviewee also is a member of the European Commission Expert Group for the evaluation of the IFRS Regulation as well as working for the International Standards of Accounting and Reporting (ISAR) group at The United Nations Conference on Trade and Development (UNCTAD), which focuses on reporting and sustainable development and in developing accounting guidance for SMEs. Another interviewee is a partner and Head of Financial Reporting at a large accounting firm and a member of the Financial Reporting Council's committee which maintains UK GAAP. As well as this, the interviewee is a member of the Financial Reporting Faculty Board at the ICAEW and a key member of their Financial Reporting Committee (FRC), which issues responses on all financial reporting-based consultations from both UK and global regulators and standard setters. Moreover, the interviewee is highly interested in the UK GAAP as well as engaging in financial reporting of medium sized companies and advising the clients regarding FRS 102 issues. The last interview is a partner in charge of Financial Reporting Advisory Team in a large accounting firm and is highly experienced in UK GAAP. This interviewee is a member of the UK GAAP Technical Advisory Group (TAG) having been appointed by the FRC and is also a member of an IFRS working group for European Financial Reporting Advisory Group (EFRAG). Moreover, this interviewee engages in financial reporting of medium size companies and advises the clients regarding FRS 102 issues.

3.4 Effect of FRS 102 in the first-time adoption reconciliation statements (prior year)

Under Section 35 of FRS 102, companies are required to produce reconciliations as part of their transition to FRS 102. In the reconciliation statements, companies are required to explain how the transition from UK GAAP to FRS 102 affects their financial position and financial performance. These detailed reconciliation statements are utilized as a source of secondary data in this research. Ali et al., (2016), used the reconciliation statements of AIM listed companies on their transition to IFRS. They argue that the data, as a result, is reliable and is worthy of such an investigation[24]. Studies that examine the effects of IFRS, take advantage of reconciliation statements as required by IFRS1 and explore the dissimilarities in financial reporting following the adoption of IFRS and explain the reasons for the differences; for example, Ormrod & Taylor, 2006; Aisbitt, 2006; Christensen, Lee, & Walker, 2007 and Christensen, Lee, & Walker, 2009. Analysis of reconciliation statements in the prior year to FRS 102 adoption is in the Chapter (5).

3.4.1 Sampling

Most previous studies[25] use small samples to investigate the transition effect as the data in such cases is hand collected. Also, some of these studies use a small sample to, additionally, investigate which certain sections of the new adopted accounting standard have caused the changes to financial reporting. The sampling frame in the mentioned studies includes the entire population of companies. The current study also uses a relatively small sample but the focus and then the sampling frame is different. The sampling process is different and different sub-samples are selected depending on the areas of impact and the most likely affected companies. More specifically, the entire population is divided into different populations according to the types of transactions targeted by FRS 102. The reason behind this division is that previous studies that usually

---

[24] Stenka et al., (2008), state that "reconciliations are only required in the year of transition, and thus provide a rich, but one-off, data source for the impact of the transition. Consequently, a significant sample of companies is transferring to IFRS in the same year. This enables broadly comparable and verifiable data on transition to IFRS to be observed and analysed empirically for a significantly sized sample. To the extent that accounting data can be homogeneous these regulatory requirement enables broadly comparable cross-sectional data to be subject to empirical scrutiny".

[25] See for instance, Callao et al (2007) 26 firms, Asbitt (2006) 50 firms, Gastón et al (2010) two independent samples 74 and 100 firms, Lantto et al., (2009) 91 firms, Tsalavoutas and Evans (2010) 238 firms and Ali et al., (2016) 115 firms.

use relatively small samples are related to IFRS adoption for listed companies which usually use samples in the region of 100 companies, which in turn represents around 10% or more of the entire population, but 100 companies in the present study is less than 1% of the population of medium size companies. Consequently, if we follow the sampling process/size as in the case of listed companies that apply IFRS, we might not capture any changes related to FRS 102. Therefore, dividing the population of medium size companies into different sub-populations enable us to capture the FRS 102 effects, if any, as we are looking at where the expected effects might be. This might create some concern regarding the representativeness of the findings, but this issue is considered in the next chapter (difference-on-differences method). After dividing the population of the medium size companies into sub-populations, according to the types of transactions, random simple sub-samples are selected from every population. These sampling frames have been identified relying on the key differences between old UK GAAP and FRS 102 from the literature as well as the conducted interviews. The following table presents the sampling frame, population and the sub-samples of medium size companies according to FAME database.

Table 3-1 here

The first column in Table 3-1 shows the search criteria in FAME data base to identify the population of medium size companies. The second column presents different types of sub-samples basing to the areas of key differences between old UK GAAP and FRS 102. The third column in the table illustrates search criteria used in FAME data base to identify the sub-populations in which every sub-sample was selected from. Again, these search criteria due to the areas of key differences between old UK GAAP and FRS 102. The fourth column displays the size of each sub-population and finally, the last column gives the size of each sub-sample.

Table 3-1 sampling frame, population and samples

Search criteria in FAME applied for all sub-samples	Sub-samples type	Specific search criteria for each sub-sample	Populations (companies)	The sub-sample size (companies)
1. All active companies. 2. Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods. 3. Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods. 4. Exclusion companies with IFRS accounts. 5. Exclusion the financial sector. 6. Exclusion subsidiaries. 7. Number of years with accounts: more than 1year. 8. Country: the UK.	1. Investment property	Revaluation reserves	1596* (368)*	40
	2. Financial instruments	Overseas Turnover	3454	40
	3. Borrowing costs	Construction companies	747	40
	4. Leasing	Companies with operating lease rental	8237	40
	5. Development costs	Companies with R&D	515	40
	6. Pension costs	Groups**	3837	40
	7. Intra group loans			
	8. Intangibles (recognition + amortization)	Companies with acquisition and disposal	486	40
	9. Intangibles (amortization)	Companies with intangible assets	3800	40
	10. Deferred tax on Land and Buildings (revaluation)	Companies with Land and Buildings	8353	40
	11. Water companies	Water companies	9	7
Total				367

*1596 are medium size companies that have revaluation reserves. Although, not all of these companies have investment properties but those companies with investment properties are within this number (1596). After sorting these companies (1596) randomly, I started to look at their account one by one to know which companies that have investment properties. I have found 40 medium size companies with investment properties after looking at 175 companies randomly. So, it is estimated that medium size companies which have investment properties to be in the region of 40/175 = 23% * 1596 = **367** companies among all medium size companies in the UK.

** The same sample has been used for both Pension costs and Intra group loans. Therefore, the same sample has been used to investigate two different areas of FRS 102 effects.

3.4.2 Data collection

The financial reports of 40 medium size companies have been downloaded from Companies House Website for each sub-sample. The data was hand collected which represents accounting numbers required to calculate the tested financial ratios. The accounting numbers (financial statements items), required to calculate the tested financial

ratios, have been collected from income statement and balance sheet for the same year (year of transition) under both accounting regimes (old UK GAAP and FRS 102).

The sub-sample size (40) was identified after taking into accounts that:

1. Statistically, it is considered as a large sample. According to Waters and Waters (2008) the shape of the t-distribution depends on the sample size, and with samples greater than 30 the t-distribution is very similar to the Normal" (Waters, D. and Waters, C.D.J., 2008. P. 467).
2. The data is hand-collected and then there are time and cost limitations for using larger samples. For this reason, most of similar studies, in area, use relatively small samples.
3. Although the sample selection is random, the population of each sub-sample is purposely selected. Therefore, the populations of these sub-samples are more likely to have impacts after FRS 102.
4. The next chapter (2015 analysis), will have the entire population which is these sub-samples are selected from.

3.4.3   Measuring the effect on financial reporting (financial ratios)

The following are the financial ratios used in the study to assess the effect of FRS 102 adoption. These ratios have been calculated in excel from the hand-collected data of the study samples financial statements.

$$\text{Curent ratio (CR)} = \frac{\text{current assets}}{\text{short liabilities}}$$

$$\text{Return on Assets (ROA)} = \frac{\text{net income}}{\text{total assets}}$$

$$\text{Total Liabilities on Total assets (TL/TA)} = \frac{\text{total liabilities}}{\text{total assets}}$$

$$\text{Interest coverage (I Cov)} = \frac{\text{operating profit}}{\text{interest paid}}$$

These financial ratios are used by the user of financial statements to assess companies in terms of liquidity, profitability, and risk and capital structure and are considered as key financial ratios according to literature of financial statements analysis (Subramanyam, 2014, O'Regan, 2007). The IASB (2004) argue that in an SME context, outside users of financial statements often use simplified methodologies of analysis. They

look at liquidity, balance sheet strength, interest coverage and historical trends of such items (p.38). Most of these financial ratios are commonly used by similar studies in the relevant research area[26]. Moreover, Rating agencies, such Fitch Investors Service, and Moody's and Standard and Poor's (according to Reilly and Brown, 2006, pp. 656-8; Bodie et al., 2005, pp. 471-3, as cited in Paulo, 2010, p. 474) make use of cash flows, interest coverage ratios, leverage ratios, liquidity ratios, and profitability ratios as prime determinants of ability to pay interest charges and redeem debt (Paulo, 2010). More specifically, ACCA (2014) illustrates that FRS 102 adoption might result in the breach of debt covenants, like PBIT-based interest cover and gearing (ACCA, technical factsheet 181, p. 7). After FRS 102 implementation, Accountancy Magazine (2014)[27] argues that perhaps the biggest and most troubling effect of any change in accounting policies is the impact that they can have on compliance with bank covenants. Covenants written into loan agreements will often have basic quantitative tests to be met. Common ratios used in this regard, are liquidity ratio, interest cover or a basic requirement to be profitable (Accountancy Magazine, 2014, p. 51-52).

3.4.4 Data analysis

For the data analysis, I have compared financial ratios for the same companies in the same year, under the two accounting regimes – UK GAAP before FRS 102 and FRS 102. From these paired samples I apply non-parametric Wilcoxon signed-rank tests, after testing the normality of the variables using SPSS software. Regarding the descriptive statistics, a table for every sub-sample is divided into two panels; panel A presents the distribution of FRS 102 effect on financial ratios regardless of whether the effect caused by a specific item or not, whereas panel B of each descriptive table shows the distribution of FRS 102 effect, on financial ratios which is linked to an individual transaction which is the criteria for selecting the relevant sub-sample. Afterwards, the relevant statistical analyses will be conducted on an aggregation level for all sub-samples together.

---

[26] (Agca and Aktas, 2007; Callao, Jarne and Laínez, 2007; Lantto and Sahlström, 2009; Jindrichovska, Kubickova and Prsala, 2012; Feltham, 2013 and Gastón et al., 2010)

[27] The author is Helen Lloyd FCA is an audit and accounting specialist at SWAT. She was a senior technical writer (audit and accounting) at Wolters Kluwer until June 2016. She has a wealth of experience in technical issues from Deloitte, BDO and the ASB, the predecessor to the Financial Reporting Council's Accounting Council, where she was a project director on the Future of UK GAAP (FRS 102). https://www.accountancylive.com/helen-lloyd

Accordingly, the levels of analyses of 'reconciliation statements' chapter/method are as follows;

First level of analysis (which will be presented in second[28] table for every sub-sample): shows how significant the effect on the financial ratios as well as it presents the descriptive statistics (minimum, median, maximum, mean standard deviation).

Second level of analysis (which will be presented in the third table for every sub-sample): gives distribution of the effect of the transition on financial ratios. The table is divided in two panels;

    a) Panel A of this table shows the effect of the transition to FRS 102 on financial ratios regardless of whether the effect caused by a specific transaction[29] or not.

    b) Panel B of the table shows the effect of the transition to FRS 102 which is likely to be associated with a certain transaction. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the relevant/targeted transaction

Third level of analysis: presents the effect of FRS 102 on an aggregation level (total sample) as follows;

    a) The overall effect on financial ratios (all sub-samples)

    b) Volatility in profit (all sub-samples)

    c) Size effect (all sub-samples)

---

[28] The first table presents the search criteria used to select the sub-sample.

[29] Transaction means the areas of key differences between old UK GAAP and FRS 102 such as investment property, financial instruments, leasing, etc.

3.5   The effect of FRS 102 in the first-time adoption year: DID design

Although a 'reconciliation statements-based method' is widely used by researchers as it gives a unique opportunity to examine the effect of the transition, there are some limitations as a result of using this method. For example, there are some transitional adjustments in the year of transition as well as the restated financial statements under FRS 102 are not available in FAME database and consequently, the data is hand collected from the actual accounts and as a result the sample, as in the similar studies, is relatively small. Also, in 'reconciliation statements-based method', there is a limitation regarding the representativeness of the study sample. This is because the sub-samples used may not be solely based on the entire population as well as there is some overlapping between the sub-samples[30]. In applying the 'difference-in-differences method', the data of financial statements is available in FAME database for the entire population. Accordingly, 2014 accounts under old UK GAAP and 2015 accounts under FRS 102 are accessible. Hence, a large sample was based on the entire population of medium size companies from FAME. The studies that use difference-in-differences method to investigate the effect of the transition to a new accounting standard on financial reporting are, for example Ahmed et al., (2013), Florou and Pope (2012), Li (2010), Daske et al., (2008), Defond et al., (2011) and Landsman et al., (2012).

The idea behind DID design is when only a fraction of the population is exposed to the treatment, an untreated comparison group can be used to identify temporal variation in the outcome that is not due to treatment exposure (Abadie, 2005, p. 1). Li (2010) states that using a control sample helps to isolate the effect of IFRS adoption by differencing out possible confounding factors that change around the adoption (Li, 2010, p. 612).

I use a difference in differences (DID) approach to identify any FRS102 effect on those companies which first reported under the new standard in 2015. These constitute the treatment sample; the companies which reported the results for their accounting year ending in 2015 using the prior regulations constitute the control sample.   For both treatment and control samples I include the results for 2014. Any effect of FRS102 is captured in key financial ratios, as documented in prior research. Adding interaction

---

[30] For instance, some companies can be exist in more than one sub-sample.

terms to a regression model can greatly expand understanding of the relationships among the variables in the model and allows more hypotheses to be tested (Ye, 2016, p. 23). Accordingly, a number of DID models are used to investigate different levels of the effects of FRS 102 implementation on financial ratios. These investigations are as follows;

- Companies more likely to have the transactions targeted by FRS 102
- Overall effect
- Size effect
- Industry effect
- Relationships between effects on financial ratios and the individual sections of FRS 102

3.5.1 Data collection

Data of the year before FRS 102 adoption (2014) and the year after (2015) have been collected from Financial Analysis Made Easy (FAME) database supplied by Bureau Van Dijk.

The two samples (treatment and control) have been selected from FAME data base according to the following search criteria:

1. All active companies (not in receivership nor dormant) and companies with unknown situation
2. Number of Employees: 2015, 2014, for all the selected periods, min=50, max=249.
3. Turnover (th GBP): 2015, 2014, for all the selected periods, min=6,500,000 max=25,900,000.
4. Exclusion companies with IFRS accounts.
5. Country: Prim. trading address, R/O address: England, Northern Ireland, Scotland, Wales.
6. Major sectors: Chemicals, rubber, plastics, non-metallic products, Construction, Education, Health, Food, beverages, tobacco, Gas, Water, Electricity, Hotels & restaurants, Machinery, equipment, furniture, recycling, Metals & metal products, Other services, Post and telecommunications, Primary Sector (agriculture, mining, etc.), Publishing, printing, Textiles, wearing apparel, leather, Transport, Wholesale & retail trade, Wood, cork, paper. Exclusion financial sectors.
7. Accounts for both treatment and control sample are for both years 2014 and 2015.
8. Month of last accounts:

- For treatment sample is December.
- For control sample are November, October, September, August and July.

9. Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareholder.
10. Exclude charity companies: 63 companies from the treatment sample and 215 from the control sample.
11. The number of observations is as in Table 3-2 as follows;

Table 3-2: number of samples companies and observations

Observations/Samples	Treatment sample	Control sample	Total
Medium size companies according to search criteria in FAME database	3,973	2,457	6,430
Number of observations*	7,946	4,914	**12,860**

* Number of observations = number of companies $\times$ 2 years (2014 and 2015).
Number of missing data depends on the variables in each model.

Treatment and control samples have been selected to use difference in differences design following Ahmed et al., (2013), Florou and Pope (2012), Li (2010), Daske et al., (2008), Defond et al., (2011) and Landsman et al., (2012). As difference in differences design needs to use both treatment and control samples and FRS 102 adoption is mandatory for all medium-sized companies from 2015, companies with reporting date not on 31 December still publish their annual accounts in 2015 under old UK GAAP. These companies have been used as a control sample following (Daske et al., 2008).

3.5.2 Measuring the effect on financial reporting (financial ratios)

The financial ratios are taken from the FAME data base are as follows:

CR is the current ratio, defined as current assets divided by current liabilities;

ROE is return on equity, defined as profit (loss) before tax over shareholders' funds;

Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds;

Interest cover is profit (loss) before interest paid divided by interest paid.

3.5.3 Data analysis

Data will be analysed using difference-in-differences design, which is a regression model, using STATA software. A number of DID models are used which are based on the following basic DID model.

$$R = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST \qquad (1)$$

where:

R = the ratio for each company, observations for 2014 and 2015, and companies which implemented FRS102 in 2015 (the adopters) and those which did not (the control sample)

ADOPT = 1 if the observation is part of the treatment sample (using FRS 102 in 2015), 0 otherwise

POST = 1 if the observation is in 2015, 0 otherwise

The components of the equation are as follows:

R = a + β 1.ADOPT + a1.POST   (1-1)

a1= β 2 + β 3.ADOPT   (1-2)

Equation (1-1) specifies that the average ratio in 2014 for all companies is captured by the coefficient a. The incremental value of the ratio in 2014 for those companies which will adopt FRS102 in 2015 is captured by the coefficient β1. The value of a company's ratio in 2015 is captured by the coefficient a1 which is specified by equation (1-2). The coefficient has two elements: one that is the same for all companies (β2), which captures the economy and industry wide effects; and an extra element (β3) if the company adopts FRS102.

This model reflects the overall effect of FRS 102 on financial ratios. Basing on the basic DID model; other models are developed to examine size effect, industry effect as

well as the relationships between the effects on financial ratios and the individual sections of FRS 102. Also, amendment made to the basic DID to test the effect on companies more likely to have the transactions targeted by FRS 102.

Control variables

Liquidity

(Drever and Hutchinson, 2007) argue that Size is often regarded as a proxy for risk with the result that small firms may find it difficult to borrow. The implication of this is that smaller firms will be more liquid because they can't borrow. As a result the very smallest firms may have to hold more cash for contingency purposes. Growth is likely to put a strain on a firm's liquidity especially if it has a long cash conversion cycle (Drever and Hutchinson, 2007).

Profitability

Sharma and Kumar (2011) used growth, leverage, liquidity and size as determinants for ROE. Also, Goddard et al (2005) find that there is evidence of a negative size-profitability relationship. The relationship between a firm's gearing ratio and its profitability is negative, but firms with higher liquidity tend to be more profitable. Barth et al (2008) used the following controls for profitability: Size, growth and leverage.

Leverage

For leverage: MacKay and Phillips (2005) include industry as well as profitability and firm size as control variables for dependent variables of financial structure. The agency cost theory predicts a *positive* significant and a negative significant slope for *size* and growth variables, respectively and either a significant positive or negative slope for the tangibility variables (Buferna, 2005).

Leverage (DV)	Trade-off Theory	Asymmetric information theory	Agency cost Theory
Profitability (ind)	+	-	No clear prediction
Growth (ind)	No clear prediction	+	-
Size (ind)	+	No clear prediction	+
Assets structure	+	+	

Although it is widely held that industry factors are important to firm financial structure, empirical evidence shows that there is wide variation in financial structure even after controlling for industries (MacKay and Phillips 2005).

3.6 Method triangulation

Most, if not all, studies in the area either use 'reconciliation statements' method for the year of transition or use 'difference in differences' method comparing the years before and after the standard implementation. Although there are some limitations for the use of each method, there is no study that combines these two methods to tackle these limitations. As the weakness of each method is not exist in the other method, we take advantage of the use of both methods as sort of 'method triangulation'. Table 1-1 shows strengths and weaknesses as well as the main differences between the two methods 'reconciliation statements' and 'difference in differences' methods.

Table 3-3: Reconciliation statements method versus difference in differences method

Pros/Cons and differences	Method	
	Reconciliation statements	**Difference in differences**
Economic effects	No, just compare like with like: changes reflect **only** FRS 102 impact. ✓	Yes, I have to control for the economic effect. ✗
Transitional adjustments	Yes, there are. ✗	No. ✓
Representativeness	Less Representative ✗	More Representative ✓
Sample size	Small ✗	Large ✓
Statistical Test	Comparing Mean and Median	Regression
Testing flexibility	Less flexible	Interaction terms allow more hypotheses to be tested ✓
Time period	Only one year (under two accounting regimes)	One year before and one year after the transition
Type of data	Actual accounts from Companies House Website	FAME data base

✓ = advantage. ✗ = disadvantage.

The strength of 'reconciliation statements analysis' is that if there is any effect, it is 100% caused by the transition to FRS 102. As for the 'difference-in-differences analysis', there are no transitional arrangements and it allows to use a large sample and then the findings are more representative and generalizable for the entire population.

3.7 Definition of Medium size companies

Generally, a company qualifies as 'medium-sized' in its first accounting period if it fulfils the conditions (thresholds) in that period. In any subsequent period a company must fulfil the conditions in that period and the period before (Companies House, 2016). According to Companies Act 2006 (Amendment, 2008), an entity should satisfy at least two of three criteria to be qualified as medium. These criteria are Turnover: more than £6.5 M to £25.9 M, Balance sheet: more than £3.26 M to £12.9 M, and number of employees: more than 50 to 250 (Companies Act 2006, 2008, p.2). There are new changes to the size thresholds, but they are required to be applied from 2016

3.8 Conclusion

The present chapter illustrated the different methods used in the present study, starting with interviews conducted with practitioners moving on to the 'reconciliation statements-based' analysis and then 'difference-in-differences' design. The reconciliation statements method was based on the types of transactions followed by the overall effect on financial ratios for all sub-samples and then other analyses about volatility in profits and size effect. Afterwards, the difference-in-differences method was used to triangulate with the reconciliation statements method. Difference-in-differences method was conducted according to the overall effect of FRS 102 on financial ratios, size effect, and industry effect as well as to connect between the effect on financial ratios and the reasons behind the changes.

4   Chapter 4: the effect of FRS 102 in the first-time adoption reconciliation statements (prior year)

4.1   Introduction

The previous chapter presented the research methodology starting with the interviews conducted with practitioners to be combined with the limited literature. Then, moving on to the two quantitative methods which are triangulated to give the whole picture of FRS 102 impact on financial reporting of medium size companies. The present chapter has the first quantitative method. Accordingly, different sub-samples have been selected to investigate the impact of FRS 102 on financial reporting. This is using 'reconciliation statements' for the year of transition (2014). In this year, we have the financial statements available under both old UK GAAP and FRS 102. This gives a unique opportunity to compare 'like with like' and if there is any effect on financial reporting in this year, it is for sure caused by FRS 102. In other words, there are no possible economic effects on accounting numbers in the year of transition.

4.1.1   Background

Before 2015, medium-sized companies in the UK were following the UK GAAP, which is a collection of FRSs, SSAPs and UITF Abstracts. From 1st January 2015 medium-sized companies in the UK were required to apply the FRS 102 which is based on IFRS for SMEs. The FRC states that "FRED 48 is a proportionate solution written specifically for smaller and medium-sized companies whilst maintaining the quality of financial reporting" (ASB, 2012. In 2013 FRC states that "the objective in setting accounting standards is to enable users of accounts to receive high-quality understandable financial reporting proportionate to the size and complexity of the company and users' information needs" (FRC, 2013a).

4.1.2   Issue

New accounting regulation will invariably result in changes in recognition and/or measurement requirements. Consequently, it is, in turn, expected that these changes will impact on the reporting performance. As a result, changes are likely to be seen in accounting figures and then reflected in financial ratios as performance

indicators. The importance of this research area stems from how the application of new accounting regulation may have economic consequences and then how stakeholders could be affected. Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. This, therefore, could for example, cause a technical breach of the terms of loan covenants written in the form of rolling GAAP.

4.1.3 The objective of the chapter

The objective of this chapter is to investigate the impact of FRS 102 adoption on financial reporting of medium-sized companies in the UK and whether FRS 102 represents a significant change in the way medium size companies reported. Medium size companies are those companies that meet at least two of three size thresholds for two consecutive years[31], according to the Company Act 2006. Selected financial ratios of medium size companies before and after the transition to FRS 102 have been analysed.

4.1.4 Findings in brief

a) For the sub-samples:

- **Investment property sub-sample** shows an increase in leverage as well as revaluations and reclassifications for the investment properties after the transition to FRS 102.

- For the **intangible assets sub-sample**, there is also, an increase in leverage as well as more recognition for intangible assets and also more amortization after the transition to FRS 102.

- For **the other sub-samples**, although the distribution of the effect of FRS 102 shows some effects on the financial ratios, these effects cannot be linked to individual sub-sections of FRS 102, these effects rather caused by a combination of different sub-sections of FRS 102.

b) As for the **overall impact** for the total sample (all sub-samples), there are:

---

[31] Generally, a company qualifies as 'medium-sized' in its first accounting period if it fulfils the conditions (thresholds) in that period. In any subsequent period a company must fulfil the conditions in that period and the period before (Companies House, 2016). According to Company law, the size thresholds for qualification as "medium" are as follows: turnover: £25.9m, balance sheet total: £12.9m and number of employees: 250.

- Significant decreases in liquidity, profitability and Interest Coverage as well as a significant increase in leverage.

- More volatility in profits under FRS 102 compared to the profits under old UK GAAP.

- The larger medium size companies are more affected than the smaller ones.

4.1.5 Contribution

Regarding companies that more likely to have similar transactions, they have less liquidity, less performance and more risk as well as more volatility in profits. Accordingly, the image of this group of companies seems worsened. Why does it matter? (Accountancy Magazine, 2014, p. 51-53), clarifies how many stakeholders in a company's financial statements view the sorts of changes that will arise from applying FRS 102 for the first time; for banks, "small changes might have critical effects on financial ratios and then on debt covenants". Shareholders "need to understand why reported figures might have changed, and they are likely to be particularly interested in the overall effect as well as the individual details". Other interested parties are Government, employees, suppliers and competitors (see the general conclusion). Furthermore, the findings will be of interest to the member states of EU that might consider following (or not to follow) the UK as a first case that amended and applied IFRS for SMEs which is not permitted, to be adopted as it is, according to the incompatibilities with EU Accounting Directive.

The present study contributes to the relevant literature (Callao et al., 2007; Aisbitt, 2006; Stenka et al., 2008; Gastón et al., 2010; Lantto et al., 2009; Tsalavoutas and Evans, 2010 and Pálka and Svitáková, 2011) in terms of how changes in accounting regulations affect the way in which performance is reported, and how key financial ratios, which might have impacts on contractual obligations, could be affected. This research area is underrepresented in the academic literature for SMEs and more specifically for medium-sized companies. Moreover, there is no previous evidence about the impact of FRS 102 on financial reporting. Also, the findings are inconsistent with the Anglo-Saxon debate which suggests that UK companies are not expected to be affected by international accounting standards as they have similar environment where these standards have been established. Furthermore, the findings of this study, after FRS 102 adoption, will give feedback to

the regulators especially in the review of the standard as well as being of interest to the main users of financial statements of medium-sized companies regarding the recognizing and understanding the effect of the changes after the transition to FRS 102.

4.1.6 Chapter outline

The following section shows how the hypothesis is developed based on the literature of accounting standard as well as the interviews conducted with the practitioners. Then the next section shows the sample selection and data collection as well as data analysis. Afterwards, the results are discussed and finally the conclusion. The chapter outline, after the introduction section, can be detailed as follows:

- Hypothesis development
- Data collection and analysis
- The results: sub-samples
- The results: Total sample
- Discussion and Conclusion

4.2 Hypothesis development

New accounting regulation will invariably result in changes in recognition and/or measurement requirements. Consequently, it is, in turn, expected that these changes will have impacts on the reporting performance. As a result, changes are likely to be seen in accounting figures and then reflected in financial ratios as performance indicators. The importance of this research area stems from how the application of new accounting regulation may have economic consequences and then how stakeholders could be affected. Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances.

After reviewing the literature, it appears that most the relevant literature is about public companies and there is very little literature about this research area for SMEs and more specifically for medium size companies. This lack of literature could be because of, for instance, not many countries have required, for example, their SMEs to apply IFRS for SMEs or IFRS. In Europe, IFRS for SMEs is not permitted because of incompatibilities with European Union Accounting Directive. Consequently, the UK has issued FRS 102 which is based on IFRS for SMEs with other amendments based on full IFRS and old UK GAAP. To the best of my knowledge, there is no previous study about the effect of FRS 102 adoption on financial reporting of medium-size companies in the UK. Therefore, the present study seeks to identify whether significant differences in financial reporting have arisen following the FRS 102 adoption by medium size companies. Hence, the present study focuses on two research gaps, first, the lack of literature regarding medium-size companies regulation, and second, assessing the impact of the new UK GAAP which is considered as one of the biggest changes in accounting regulation in the UK for a generation.

Semi-structured interviews with practitioners have been conducted to triangulate with the relevant literature and give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102 as well as the types of companies that could be affected as a result. These interviews are complementary to the literature to narrow down the focus in terms of the areas of impact and the likely affected companies as well as to help in developing the research hypotheses.

After reviewing the relevant literature and conducting the interviews, research hypotheses have been developed. Therefore, research hypothesis for each of the following areas has been stated (in the relevant section for every sub-sample): Investment property, financial instruments, pension costs, intra group loans, leasing, intangible assets, deferred tax, borrowing costs and development costs. Accordingly, the null research hypothesis in this chapter is as follows:

H0: The transition from old UK GAAP to FRS 102 has had no significant effect on financial ratios of medium size companies in the UK

4.3 Data collection and analysis

Under Section 35 of FRS 102, companies are required to produce reconciliations as part of their transition FRS 102. In the reconcile statements, companies are required to explain how the transition from UK GAAP to FRS 102 affects their financial position and financial performance. These detailed reconciliation statements have been utilized as a main source of secondary data in this research[32]. Ali et al., (2016), use the reconciliation statements of AIM listed companies on their transition to IFRS, they argue that the data, as a result, is reliable and is worthy of such an investigation[33].

4.3.1 Sampling

Most previous studies[34] use relatively small samples to investigate the transition effect as the data in such cases are hand collected. Also, these studies use a small sample to broadly focus on most or all transactions or the relevant sections within the new adopted standard. Moreover, the sampling frame in the mentioned studies represents the entire population of companies. The current study also uses a relatively small sample but the focus and then the sampling frame is different. The sampling process is different and different sub-samples are selected depending on the areas of impact and the most likely affected companies. More specifically, the entire population is divided into different populations and then a random sample, of 40 companies, is selected from each population. These sampling frames have been identified relying on the key differences between old UK GAAP and FRS 102 from the literature as well as on the conduced interviews.

---

[32] Studies examine the effects of IFRS, take advantage of reconciliation statements as required by IFRS1 and explore the dissimilarities in financial reporting following the adoption of IFRS and explain their reasons for the differences are, for example, Ormrod & Taylor, 2006; Aisbitt, 2006; Christensen, Lee, & Walker, 2007; Christensen, Lee, & Walker, 2009.

[33] Stenka et al., (2008), state that "reconciliations are only required in the year of transition, and thus provide a rich, but one-off, data source for the impact of the transition. Consequently, a significant sample of companies is transferring to IFRS in the same year. This enables broadly comparable and verifiable data on transition to IFRS to be observed and analysed empirically for a significantly sized sample. To the extent that accounting data can be homogeneous these regulatory requirement enables broadly comparable cross-sectional data to be subject to empirical scrutiny".

[34] See for instance, Callao et al (2007) 26 firms, Asbitt (2006) 50 firms, Gastón et al (2010) two independent samples 74 and 100 firms, Lantto et al., (2009) 91 firms, Tsalavoutas and Evans (2010) 238 firms and Ali et al., (2016) 115 firms.

Specific search criteria in FAME database have been used to identify the population of medium size companies and then selecting the lists of the sub-samples. Afterwards, as the 2014 accounts under FRS 102 are not available in FAME database, the actual accounts of the samples have been downloaded from Companies House Website. There have been 10 sub-samples; each sub-sample includes 40 companies except the Water companies' sample that has only 7 companies. Accordingly, the entire number of the companies in the samples is 368 medium size companies. See Table 4-1.

Regarding the sub-samples of investment property, borrowing costs, development costs, intangible assets and water companies if we selected a relative stratified sample (i.e. taking the same percentage for each area/sub-population), the size of these sub-samples will be below 30, which is statistically considered as a small sample. According to Waters and Waters (2008) the shape of the t-distribution depends on the sample size, and with samples greater than 30 the t-distribution is very similar to the Normal" (Waters, D. and Waters, C.D.J., 2008. P. 467). Moreover, as a result of the overlapping between the different populations and consequently the difficulty in identifying the sampling frame, it is very difficult to select a relative stratified sample. In addition, the population of investment property has not been exactly identified.

Table 4-1 shows the sampling frame, population and search criteria used for sample selection.

Table 4-1: sampling frame, population, samples and search criteria

Search criteria in FAME applied for all sub-samples	Sub-samples type	Specific search criteria for each sub-sample	Populations (Companies)	Size of sub-samples (Companies)
1. All active companies.	1. Investment property	Companies with revaluation reserves	1596* (368) *	40
2. Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods.	2. Financial instruments	Companies with overseas Turnover	3454	41
	3. Borrowing costs	Construction companies	747	40
3. Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods.	4. Leasing	Companies with operating lease rental	8237	40
	5. Development costs	Companies with R&D	515	40
4. Exclusion companies with IFRS accounts.	6. Pension costs	Groups**	3837	40
	7. Intra group loans			
5. Exclusion the financial sector.	8. Intangibles (recognition + amortization)	Companies with acquisition and disposal	486	40
6. Exclusion subsidiaries.	9. Intangibles (amortization)	Companies with intangible assets	3800	40
7. Number of years with accounts: more than 1year.	10. Deferred tax on Land and Buildings (revaluation)	Companies with Land and Buildings	8353	40
8. Country: the UK.	11. Water companies	Water companies	9	7
	Total			368

*1596 are medium size companies that have revaluation reserves. Although, not all of these companies have investment properties but those companies with investment properties are within this number (1596). After sorting these companies (1596) randomly, I started to look at their account one by one to know which companies that have investment properties. I have found 40 medium size companies with investment properties after looking at 175 companies randomly. So, it is estimated that medium size companies which have investment properties to be in the region of 40/175 = 23% * 1596 = 367 companies among all medium size companies in the UK.

** The same sample has been used for both Pension costs and Intra group loans. Therefore, the same sample has been used to investigate two different areas of FRS 102 effects.

The first column in Table 4-1 shows the search criteria in FAME data base to identify the population of medium size companies. The second column presents different types of sub-samples basing to the areas of key differences between old UK GAAP and FRS 102. The third column in the table illustrates search criteria used in FAME data base to identify the sub-populations in which every sub-sample is selected from. Again, these search criteria due to the areas of key differences between old UK GAAP and FRS 102. The fourth column displays the size of each sub-population and finally, the last column gives the size of each sub-sample.

4.3.2 Data collection

For each sub-sample, the annual accounts of 40 medium size companies have been downloaded from Companies House Website. The data were hand collected which represents selected accounting numbers required to calculate the selected financial ratios. These numbers have been collected from income statement and balance sheet for 2014 (year of transition) under both accounting regimes (old UK GAAP and FRS 102).

4.3.3 Method of analysis

4.3.3.1 Analysis of individual sub-samples

For data analysis, firstly, I analyse the overall effect of the change from old UK GAAP to FRS 102 on financial ratios for the same companies in the same year, but under different accounting regimes. This means I work with paired samples to compare different observations (under both old UK GAAP and FRS 102) from the same company. Non-parametric Wilcoxon signed-rank test has been used after testing the normality of the variables.

Secondly, analysis the distribution of the effect of FRS 102 within each sample according to (a) any effect of FRS 102, and (b) the effect of FRS 102 likely to be associated by the relevant transaction. Hence, a table for every sub-sample is divided into two panels; panel A presents the effect of the transition to FRS 102 on financial ratios regardless of whether the effect caused by a specific transition or by other transactions, whereas panel B displays the effect of FRS 102 which is likely to be associated by the relevant transaction.

Accordingly, the levels of data selection and analysis can be summarized as follows:

For every sub-sample analysis there is;

1. A sample selection table that describes the sampling frame, research criteria and the sub-population in which the sub-sample was taken from.

2. A test of significance table as well as the descriptive statistics of the overall effect of FRS 102. The Wilcoxon Signed Rank Test was used after conducting the test of normality;

> "The Wilcoxon Signed Rank Test (also referred to as the Wilcoxon matched pairs signed ranks test) is designed for use with repeated measures: that is, when your subjects are measured on two occasions, or under two different conditions. It is the non-parametric alternative to the repeated measures t-test, but instead of comparing means the Wilcoxon converts scores to ranks and compares them at Time 1 and at Time 2"[35]. (Pallant, 2005, p. 292-293).

3. A distribution table which displays the effect on the financial ratios. This table has two panels as follows;

   a) Panel A of this table shows the effect of the transition to FRS 102 on financial ratios regardless of whether the effect is likely to be caused by a specific transaction[36] or not.

   b) Panel B of the table shows the effect of the transition to FRS 102 which is likely to be associated with a certain transaction. In other words,

---

[35] The two things we are interested in the output are the Z value and the associated significance levels, presented as Asymp. Sig. (2-tailed). If the significance level is equal to or less than .05 then you can conclude that the difference between the two scores is statistically significant (Pallant, 2005, p. 294). Wilcoxon test are rank sum tests and not median tests. It is possible, although not very common, for groups to have different rank sums and yet have equal or nearly equal medians. https://stats.idre.ucla.edu/other/mult-pkg/faq/general/faq-why-is-the-mann-whitney-significant-when-the-medians-are-equal/. The Wilcoxon test is not for either the mean or median although the median may be closer to what the test is testing. https://stats.stackexchange.com/questions/33759/do-we-need-to-report-the-median-or-the-mean-when-using-a-kruskal-wallis-test

[36] Transaction means the areas of key differences between old UK GAAP and FRS 102 such as investment property, financial instruments, leasing, etc.

Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the relevant/targeted transaction.

Further analysis for investment property and intangibles sub-samples

When we find, from Panel B in the table of the distribution of the effect on the financial ratios, that there are companies have impact on their financial ratios simultaneously with changes in the relevant transaction[37], further analysis will be conducted to identify how the change in the relevant transaction affect the financial statements. For example, when we found for the investment property sub-sample that there are several companies with changes in their financial ratios at the same time accompanied with changes in the treatment of their investment properties, further analysis was conducted to illustrate the impact of the changes in investment properties on the accounting numbers. Accordingly, the further analysis will be only for the sub-samples that have more than two companies with changes in the relevant transaction. This is only for investment properties and intangible assets sub-samples.

4.3.3.2   Total sample analysis

After the sub-samples analysis, all sub-sample will be aggregated together to presents the effect of FRS 102 on an aggregation level as follows;

a) The overall effect on financial ratios (all sub-samples)

b) Volatility in profit (all sub-samples)

c) Size effect (all sub-samples)

---

[37] Transaction means the areas of key differences between old UK GAAP and FRS 102 such as investment property, financial instruments, leasing, etc.

4.4   The results: sub-samples

This section gives test of significance as well as the descriptive statistics of the overall effect of FRS 102. Also, this section presents the distribution of the effect of the transition on financial ratios of medium size companies for each sub-sample. The tables of distribution will be divided in two panels; panel A shows the effect of the transition to FRS 102 on financial ratios regardless of whether the effect caused by a specific transaction[38] or not. Panel B of the table shows the effect of the transition to FRS 102 which is likely to be associated with a certain transaction Afterwards, the results will be presented on an aggregation level for all sub-samples together.

4.4.1   Investment property sub-sample

Investment properties were included in the balance sheet at open market value under old UK GAAP. The revaluation differences are included in revaluation reserves and the cost model is not permitted. Under FRS 102, Investment property is carried at fair value through profit or loss if this fair value can be measured without undue cost or effort, otherwise, it is carried at cost within Property, plant and equipment (Pwc, 2015). After conducting interviews with highly experienced practitioners, they state that Investment property under FRS 102 is a big concern by most of medium-sized companies regardless of the type of the sector. Also, fair value accounting for investment properties is expected to have some impacts such as more volatility for profits as well as the deferred tax, which is considered as a major issue, as a result of the revaluation. Hence, investment property accounting under FRS 102 is expected to affect any company that has investment properties.

H0: The change in investment property accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium size companies in the UK

Table 4-2 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of investment property.

---

[38] Transaction means the areas of key differences between old UK GAAP and FRS 102 such as investment property, financial instruments, leasing, etc.

Table 4-2: Search criteria in FAME to identify the Investment Property sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,820,068
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,101
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,390
4.	Companies with IFRS accounts for the last available year	25,242
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,422,577
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	11,015
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,704,707
8.	Country: Prim. trading address, R/O address: England, Scotland, Wales, Northern Ireland	9,895,423
9.	Revaluation Reserves: All companies with a known value, 2014	74,591
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8 And 9	
	TOTAL	<u>1,596</u>

Source: FAME database.

Table **4-3** displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of investment property sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-3 here

As non-normality of distribution is an inherited feature in financial ratios, test of normality has been done first to know the most relevant statistical test. As can be seen in (Table 1.1, Appendix 1), after testing the normality of variables (financial ratios), except the Total Liability on total assets ratio, all other ratios are not normally distributed. Accordingly, a non-parametric test, for paired samples, has been conducted to test the significance of changes in the financial ratios after FRS 102 adoption. The results on average reveal that, after the transition to FRS 102, there are significant increase in Total Liability on total assets ratio. In more details, out of 40 companies in the sample,

there are 22 companies with increases and 8 companies with decreases in Total Liability on total assets ratio (see table 1.1.1, Appendix 1).

Table 4-3: Overall effect of FRS 102 [39] of investment property sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-2.045		-.547		-2.366		-.497	
Asymp. Sig. (2-tailed). P-value	**.041**		.584		**.018**		.619	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.652	.636	-.049	-.047	.034	.033	-3.31	-3.17
Median	1.596	1.515	.0365	.0335	.461	.474	11.354	9.473
Maximum	17.744	17.744	.310	.310	.797	1.244	381.28	190.35
Mean	2.330	2.282	.0539	.0552	.448	.495	35.787	25.175
Std. Deviation	2.866	2.883	.0657	.0721	.208	.275	66.957	40.702
N	40		40		40		40	

---

[39] Although there are some significant changes as result of the transition to FRS 102, it is not necessary limited to changes in investment properties. This can be seen in the following table detailing which changes in financial ratios related to investment properties and those that are not. In other words, the test of significance is based on the whole sub-sample (40 companies) regardless of the transactions responsible for the changes. This clarification applies to all other sub-samples that will be presented later on.

Table 4-4 gives distribution of the effect of the transition on financial ratios of investment property sample. The table was divided in two panels; (panel A) shows the effect of the transition to FRS 102 on financial ratios regardless of whether the effect caused by the changes in investment properties or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in investment properties. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in investment properties.

Table 4-4 here

Although the overall impact of investment property seems not significant, Table 4-4 shows that there are several individual companies with changes in investment property accounting have been affected after FRS 102 adoption. As can be seen in the Table 4-4, shows that 10 out of 40 companies that have changes in investment property accounting after the transition to FRS 102, have changes in Return on assets, and 5 of these changes in Return on assets are greater than 6%. Also, regarding Total Liability on assets, there are 12 companies have been affected, 5 of them have changes greater than 6%.

As there are several companies that have changes in investment properties accompanied with changes in financial ratios, more in-depth analysis has been conducted to distinguish companies that are only affected as a result of changes in investment properties accounting from those companies that have changes caused by other types of transactions.

Table 4-4: Distribution of the effect of FRS 102 within investment property sample

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	**Impact on financial ratios regardless of whether the reason is change in investment property or by changes in other transactions**			
All affected companies	**14**	**30**	**32**	**20**
Δ < 1%	6	6	9	4
Δ from 1% to < 3%	2	3	4	8
Δ from 3% to < 6%	2	5	6	0
Δ from 6% to < 10%	1	3	3	7
Δ from 10% to 20%	1	1	6	4
Δ > 20%	2	12	4	8
Not affected companies	*26*	*10*	*8*	*9*
Panel B:	**Impact on financial ratios more likely to be associated with changes in investment property under FRS 102 [1]**			
All affected companies	**5**	**10**	**12**	**8**
Δ < 1%	2	2	4	0
Δ from 1% to < 3%	2	1	1	1
Δ from 3% to < 6%	1	2	2	1
Δ from 6% to < 10%	0	1	2	3
Δ from 10% to 20%	0	0	2	0
Δ > 20%	0	4	1	3
Not affected companies	*35*	*30*	*28*	*32*

1 the focus in this panel is only on companies that have changes in investment property accounting after the transition to FRS 102. They are 13 companies (8 of them, the changes as a result of revaluation while the other 5 companies the changes caused by reclassification between land & buildings and investment properties).

Table 4-5 gives details regarding the change in investment properties and the associated deferred tax. Also, the table shows whether the affected companies have other transactions other than changes in investment properties. From the investment properties sub-sample, 13 companies had changes in the treatment of investment properties item which is detailed as follows:

Table 4-5 here

Table 4-5 reveals that 5 companies have revalued their IPs with quite significant changes; 3 of these companies with increases and 2 of them with decreases in revaluation differences. Whereas, there have been 7 companies with reclassification, 4 of these companies have reclassified from properties to IPs and 3 of them have reclassified their investment properties to properties under Property, Plant and Equipment. Unlike revaluation process, reclassification of investment properties has no impact on the associated deferred tax. However, although the reclassification of investment properties seems not to have impacts on P&L and does not have impact on deferred tax in the current period, the effects are expected to be in the following years as a result of the revaluation processes.

In addition, 10 out of these 13 affected companies had changes, in their financial statements, caused by other operations other than the changes in IPs accounting as can be seen in Table 4-5. This is what made it quite difficult to connect the impact of the change in IPs items with changes in the financial ratios.

Therefore, differences between old UK GAAP and FRS 102 in investment property accounting could be one reason, among other transactions, that have led to changes in the financial ratios after FRS 102 adoption. In other words, the change in the financial ratios is not dominated by the changes in IPs but it is rather as a result of a collection of changes in different items/transactions. However, there are several companies with changes in Investment Properties whether in terms of revaluation under fair value with the associated deferred tax or in terms of reclassification and the associated reverse of depreciation.

Table 4-5: Further analysis on the companies with changes in Investment Property accounting

Entity	Changes caused by FRS 102 on IPs	Change as % of fixed assets	Changes in the associated deferred tax*	Other transactions other than changes in IPs treatments
A	**Revaluations**			
1	- Revaluation **£103,125** - Reverse of Depreciation £36,261	0.03 0.01	**£54,339**/total liabilities = <u>0.005</u>.	Holiday pay accrual £77,153. Deferred tax on property £240,604.
2	Revaluation **-£119,999**	-0.009	**Difficult to distinguish**.	Revaluation of Tangible assets +£3,031,793
3	Revaluation **£51,510**	0.01	**£10,302**/total liabilities = <u>0.02</u>.	No
4	Revaluation **£246,906**	0.05	£146,579 recognized on previous revaluation differences and £36,066 on the new revaluation: 146,579+36,066=**182,645**/total liabilities = <u>0.03</u>.	Little impact of deferred tax on revaluation of leasehold property.
5	Revaluation **-£35,000**	-0.11	£0	No
B	**Reclassifications**			
6	*Reclassification* from IPs to freehold property - £180,000/Fixed assets = <u>0.36</u>. (cost model).		£0	Increase in future minimum lease payments.
7	- *Reclassification* from property to IP £599,285/Fixed assets = <u>0.08</u>. - No revaluation.		£0	No
8	- *Reclassification* from land and buildings to IP £1,850,000/Fixed assets = <u>0.33</u>. - Depreciation reversed £52,736/Fixed assets = <u>0.01</u>. - No revaluation.		£0	Reclassification of Pension costs and the associated deferred tax.
9	- *Reclassification* from Property to IP £263,945/Fixed assets = <u>0.02</u>. - Reverse of Depreciation £5,941/Fixed assets = <u>0.0005</u>.		£0	1. Revaluation of freehold property (-£136464) and Depreciation (-£2729). 2. Unlisted investment at fair value +£30165 and the associated Deferred Tax +£6335.

Entity	Changes caused by FRS 102 on IPs	Change as % of fixed assets	Changes in the associated deferred tax*	Other transactions other than changes in IPs treatments
				3. Deferred Tax liability on unrealized capital gains.
10	*Reclassification* from IP to Property - £801,708/Fixed assets = 0.25. (cost model).		£0	Revaluation of freehold property - £107,180.
11	- *Reclassification* from Property to IP - £725,000/Fixed assets = 0.15. - Reverse of Depreciation -£5000/fixed assets = 0.001.		£0	Increase in amortization £920 and Decrease in finance income.
12	*Reclassification* from IP to property - £510,480/Fixed assets = 0.26. (cost model).		£0	Financial instruments at fair value.
13	- Neither reclassification nor revaluation in the group account. But, - Reclassification from Property to IP by £1,098,726 in the individual company account for the property let to the subsidiary in the group. £1,098,726/Fixed assets = 0.30.		£0	Revaluation of short and long term liabilities and investment.

Source: hand-collected data from the actual accounts.

* The associated deferred tax here is related only to changes in investment properties.

Summary of the main findings of investment property sub-sample

- From table 4-3, the test of significance shows (unexpectedly) that profitability and Interest Cover ratios are not significantly affected, however, for the profitability ratios this might because both values (numerator and denominator) of the calculated ratios could be affected by the same values. There is a significant increase in leverage which might be as a result of deferred tax effect on revaluation of investment properties.

- From Panel B of Table 4-4, it seems that there are effects on the financial ratios limited to the treatment of investment properties after the transition to FRS 102.

- The Further analysis in Table 4-5 on the companies with changes in Investment Property accounting shows that, out of the 40 companies, there are 5 companies have revalued their investment properties (3 up and 2 down), and 7 companies have reclassifications between investment properties and other properties.

4.4.2 Financial Instruments sub-sample

Initial and subsequent measurement for non-basic financial instruments now will be at fair value, and it will come to balance sheet through P&L. Many of these instruments would not have been recognised on the balance sheet under old UK GAAP but simply disclosed. For example, there are some changes in the timing of certain gains and losses (e.g. forward exchange contracts) (Grant Thornton, 2013).

After conducting interviews with highly experienced practitioners, they state that financial instruments under fair value may have a significant effect for a wide range of companies, applying FRS 102, regardless of the type of sector as has been said by Interviewee 2 "it's the next biggest issue to deferred tax". Another issue regarding financial instruments under FRS 102 is how to classify a specific financial instrument as basic or non-basic. The Interviewee 2 "also states that "where they are classified as non-basic or complex the effect is anything and massive ….. depending on what their fair value is it can give them a certain tax liability, it can give them a sudden loss that decimates their balance sheet and makes them breach covenants".

Although there are some significant impacts for companies with foreign exchange, interest rate swaps and long-term contracts, these impacts for a lot of medium size companies are not significant because they do not have such non-basic transactions, Interviewee 1.

H0: The change in financial instruments accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of liquidity, profitability, leverage and interest cover of medium size companies in the UK

Table 4-6 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of financial instruments.

Table 4-6: Search criteria in FAME to identify the FIs sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,823,783
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,234
3.	Turnover (th GBP): min=6,500, max=25,900, Last year -1, Last year -2, for all the selected periods	34,298
4.	Companies with IFRS accounts for the last available year	25,327
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,442,357
6.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,717,072
7.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	10,333
8.	Overseas Turnover: All companies with a known value, 2014	23,006
	Boolean search : (7 From (1 And 2 And 3 And Not 4 And 5 And 6)) And 8	
	TOTAL	<u>3,361</u>

Source: FAME database.

Table 4-6 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of financial instruments sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the tested ratios.

Table 4-7: Overall effect of FRS 102 of financial instruments sample

Ratios	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Analysis								
Significance of differences:								
Z	-.840		-.059		-1.183		-.105	
Asymp. Sig. (2-tailed)	.401		.953		.237		.917	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.741	.741	-.474	-.476	.119	.119	-78.887	-78.887
Median	**1.455**	**1.556**	**.058**	**.058**	**.553**	**.553**	**81.818**	**87.927**
Maximum	8.390	8.390	.443	.443	1.295	1.295	599.500	810.941
Mean	2.185	2.117	.060	.061	.567	.570	81.818	87.927
Std. Deviation	1.657	1.608	.164	.166	.287	.289	132.427	152.234
N	40		40		40		25	

As non-normality of distribution is an inherited feature in financial ratios, test of normality should be done first to know the most relevant statistical test. As can be seen in (Table 1.2, Appendix 1) after testing the normality of variables, except Total liabilities on Total assets, all other ratios are not normally distributed. Accordingly, a non-parametric test, for paired samples, has been conducted to test the significant of changes in the financial ratios after FRS 102 adoption. The results on average reveal that, after the transition to FRS 102, there is no significant impact on the financial ratios as can be seen in Table 4-7.

Table 4-8 gives distribution of the effect of FRS 102 on financial ratios of financial instruments sample. The table is divided in two panels; panel A shows the effect of the transition to FRS 102 on financial ratios regardless of whether the effect caused by the changes in financial instruments or not. Panel B shows the effect of FRS 102 which is likely to be associated with changes in financial instruments. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in financial instruments.

Table 4-8 here

Table 4-8 shows that not only the overall impact of financial instruments is not significant but also there is only one company has change in financial instruments accounting after FRS 102 adoption. Hence, according to this sub-sample, that uses changes in forward foreign exchange contract accounting to estimate the effect caused by financial instruments, there is no effect on the financial ratios after the transition from old UK GAAP to FRS 102.

Table 4-8: Distribution of the effect of FRS 102 within financial instruments sample

Ratios Δ **in ratio**	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	**Impact on financial ratios regardless of whether the reason is change in Financial instruments or by changes in other transactions**			
All affected companies	**8**	**9**	**8**	**8**
Δ < 1%	1	2	2	2
Δ from 1% to < 3%	2	0	1	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	2	2	2	0
Δ from 10% to 20%	0	2	2	1
Δ > 20%	3	3	1	5
Not affected companies	*32*	*31*	*32*	*32*
Panel B:	**Impact on financial ratios more likely to be associated with changes in Financial instruments under FRS 102 [1]**			
All affected companies	**1**	**1**	**1**	**0**
Δ < 1%	0	0	0	0
Δ from 1% to < 3%	1	0	1	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	1	0	0
Not affected companies	*39*	*39*	*39*	*40*

1 the focus in this panel is only on companies that have changes in forward foreign exchange contract accounting after the transition to FRS 102. It was only one company that has such change among the 40 sample companies (which all of them have overseas turnover).

Summary of the main findings of Financial Instruments sub-sample

- Table 4-7 shows that there is no significant effect for any of the tested financial ratios.

- From Panel B of Table 4-8, it seems that there is no effect on the financial ratios caused by the treatment of Financial Instruments after the transition to FRS 102.

Against what was expected, that the effect could be anything and massive, there are no effects on for all of the tested financial ratios.

4.4.3 Borrowing costs sub-sample

FRS 102 includes accounting options for capitalisation of borrowing costs. Unlike the old UK GAAP that requires capitalisation of borrowing costs, under FRS 102 it is a policy choice and the capitalisation choice shall be applied consistently to a class of qualifying assets or all borrowing costs shall be recognised as an expense in P&L during the period. After conducting interviews with highly experienced practitioners, Interviewee 1 states that big construction companies may be affected by borrowing costs choices; as companies under FRS 102 might prefer to recognise borrowing as expenses during the year, this might reduce profit and consequently financial ratios based on profit.

H0: The change in borrowing costs accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability and interest cover of medium size companies in the UK

Table 4-9 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of borrowing costs.

Table 4-9: Search criteria in FAME to identify the borrowing costs sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,820,883
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	27,864
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,190
4.	Companies with IFRS accounts for the last available year	25,199
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,408,699
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	10,966
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,700,380
8.	Major sectors: Construction	743,798
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8	
	TOTAL	<u>747</u>

Source: FAME database.

Table 4-10 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of borrowing costs sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-10: Overall effect of FRS 102 of borrowing costs sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences: Z	-.135		-.944		-.841		-.535	
Asymp. Sig. (2-tailed)	.893		.345		.400		.593	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.501	.501	-.139	-.139	.110	.110	-957.426	-957.43
Median	**1.508**	**1.508**	**.097**	**.097**	**.583**	**.583**	**109.683**	**109.13**
Maximum	6.742	6.742	.664	.664	1.159	1.159	881.913	881.91
Mean	1.837	1.833	.107	.107	.598	.599	109.683	109.13
Std. Deviation	1.202	1.190	.145	.145	.233	.233	255.440	255.55
N	**40**		**40**		**40**		**40**	

The test of significance reveals that there is no significant differences. Also, the descriptive statistics show no differences before and after the transition to FRS 102. Non-parametric test has been conducted after testing the normality of the variables as can be seen in (Table 1.3, Appendix 1).

Table 4-11 gives distribution of the effect of FRS 102 on financial ratios of borrowing costs sample. The table was divided in two panels; (panel A) shows the effect of FRS 102 on financial ratios regardless of whether the effect caused by the changes in borrowing costs choices or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in borrowing costs. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in borrowing costs. The table show that there is no effect on the financial ratios linked to borrowing costs accounting.

Table 4-11 here

Not only the overall impact of borrowing costs accounting is not significant but also the Table 4-11 shows that there is no single company in the sample had changes in borrowing costs accounting after FRS 102 adoption. Thus, according to this sub-

sample, we have found no effect on the financial ratios after FRS 102 adoption although this sub-sample has been selected from the population of construction medium size companies which are expected to be affected by the treatment of borrowing costs after the transition to FRS 102.

Table 4-11: Distribution of the effect of FRS 102 within borrowing costs sample

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	**Impact on financial ratios regardless of whether the reason is change in borrowing costs or by changes in other transactions**			
Number of all affected companies	**5**	**5**	**6**	**4**
Δ < 1%	2	0	5	1
Δ from 1% to < 3%	1	2	0	0
Δ from 3% to < 6%	1	0	0	0
Δ from 6% to < 10%	1	1	1	1
Δ from 10% to 20%	0	2	0	0
Δ > 20%	0	0	0	2
Not affected companies	35	35	34	36
Panel B:	**Impact on financial ratios more likely to be associated with changes in borrowing costs under FRS 102 [1]**			
Number of all affected companies	**0**	**0**	**0**	**0**
Δ < 1%	0	0	0	0
Δ from 1% to < 3%	0	0	0	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	0	0	0
Not affected companies	*40*	*40*	*40*	*40*

1 the focus in this panel is only on companies that have changes in borrowing costs accounting after the transition to FRS 102. There are no adjustments related to borrowing costs accounting in the sample.

Summary of the main findings of borrowing costs sub-sample

Neither the descriptive statistics nor the test of significance in table 4-10 shows that there is a significant effect on the profitability ratios. From Panel B in Table 4-11, it seems that there is no effect on the financial ratios caused by borrowing costs accounting. This is against what was expected that construction companies may be affected by borrowing costs choices; as companies under FRS 102 might prefer to recognise borrowing as expenses during the year, this might reduce profit and consequently financial ratios based on profit.

4.4.4 Leasing sub-sample

Under FRS 102, 90% test no longer exist and as a result it is likely to see a different classification of some leases than was before (under old UK GAAP). And then more judgement may be required to distinguish between the finance and operating lease. The impact on the financial position of a lessee in classifying a lease as a financial lease is mainly derived by the liability recognised at the commencement of the lease term. Also, lease incentives under FRS 102 are spread over the lease term rather than over the shorter period to the first rent review. And this means that the benefits to the lessee or the costs to the lessor may be amortised over a significantly longer period.

However, the FRC illustrates that both standards (SSAP 21 and FRS 102) aim to identify those situations where substantially all the risks and rewards of ownership of an asset are held by a lessee but use different specific tests or indicators. Therefore, there are unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC, 2013c, p. 4). In this regard, Interviewee 1 states that "no significant change overall. ….. the impact is slightly different, no significant reclassification. ….. having impact assessment, none of clients came back to reclassify".

H0: The change in lease accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of liquidity, profitability, leverage and interest cover of medium size companies in the UK

Table 4-12 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of leasing.

Table 4-12: Search criteria in FAME to identify the Leasing sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,854,181
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,711
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,893
4.	Companies with IFRS accounts for the last available year	25,676
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,571,204
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	11,175
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,760,810
8.	Country: Prim. trading address, R/O address: England, Scotland, Wales, Northern Ireland	9,964,068
9.	Total Operating Lease Rentals: All companies with a known value, 2014	52,731
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8 And 9	
	TOTAL	8,237

Source: FAME database.

Table 4-13 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of leasing sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-13 here

The statistical test in Table 4-13 reveals that there is no any significant change in the ratios after FRS 102 adoption. Non-parametric test has been conducted after testing the normality of the variables as can be seen in (Table 1.4, Appendix).

Table 4-13: Overall effect of FRS 102 of Leasing sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-.699		-.942		-.937		-1.596	
Asymp. Sig. (2-tailed)	.485		.346		.349		.110	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.007	.007	-.285	-.456	.149	.149	-64.807	-64.807
Median	**1.354**	**1.357**	**.065**	**.065**	**.643**	**.628**	**11.103**	**10.893**
Maximum	4.388	4.845	.746	.746	11.915	12.265	32374	32374
Mean	1.622	1.612	.076	.070	.949	.956	1885	1858
Std. Deviation	1.081	1.109	.167	.181	1.807	1.861	6854	6855
N	40		40		40		40	

Table 4-14 gives distribution of the effect of FRS 102 on financial ratios of leasing sample. The table was divided in two panels; (panel A) shows the effect of FRS 102 on leasing regardless of whether the effect caused by the changes in lease classification or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in leasing. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in lease accounting.

Table 4-14 here

Not only the overall impact of leasing accounting is not significant but also the Table 4-14 shows that there is no single company in the sample had changes in leasing accounting after FRS 102 adoption. Thus, according to this sub-sample, there is no effect on the financial ratios after FRS 102 adoption although this sub-sample has been selected from the population of medium size companies that have operating lease rentals. As this population in which this sub-sample has been selected from is very large (8237 companies), the changes in the financial ratios have been caused by a collection of other different transactions other than the changes in lease accounting.

Table 4-14: Distribution of the effect of FRS 102 within leasing sample

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	**Impact on financial ratios regardless of whether the reason is change in lease accounting or by changes in other transactions**			
All affected companies	**13**	**18**	**19**	**11**
Δ < 1%	1	3	2	1
Δ from 1% to < 3%	5	5	8	1
Δ from 3% to < 6%	4	1	2	1
Δ from 6% to < 10%	0	1	5	0
Δ from 10% to 20%	1	2	2	3
Δ > 20%	2	6	0	5
Not affected companies	27	22	21	29
Panel B:	**Impact on financial ratios more likely to be associated with changes in lease accounting under FRS 102 [1]**			
All affected companies	**0**	**0**	**0**	**0**
Δ < 1%	0	0	0	0
Δ from 1% to < 3%	0	0	0	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	0	0	0
Not affected companies	40	40	40	40

1 the focus in this panel is only on companies that have changes in lease accounting after the transition to FRS 102. There are no adjustments related to lease accounting in the sample.

Summary of the main findings of lease sub-sample

The test of significant in Table 4-13 shows that there is no significant effect on the financial ratios. Also, from Panel B of Table 4-14, it seems that there is no effect on the financial ratios caused by lease accounting. This is consistent with what was expected by the FRC and by the interviews that although there is a difference in lease accounting between old UK GAAP and FRS 102, it is not expected to have significant impact on financial reporting.

4.4.5   Development cost sub-sample

FRS 102 seems to include more accounting options for capitalisation of development costs. Old UK GAAP (SSAP 13) requires that "development expenditure should be written off in the year of expenditure except in certain strictly defined circumstances. In situations where all the relevant criteria are met, it is permissible to defer development expenditure to the extent that its recovery can reasonably regarded as assured. Such deferred development costs must be amortised in future years". Under FRS 102, development costs where a company adopts a policy of capitalisation expenditure in the development phase, that policy shall be applied consistently to all expenditure that meets certain requirements. Expenditure that does not meet certain requirements is expensed as incurred. Interviewee 1 states that "development costs may affect Hi-Tech companies, however, the expected impact is low".

H0: The change in development costs accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability and interest cover of medium size companies in the UK

Table 4-15 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of development costs.

Table 4-15: Search criteria in FAME to identify the development costs sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,865,141
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,782
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,949
4.	Companies with IFRS accounts for the last available year	25,715
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health.	6,598,833
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	11,196
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,767,011
8.	Country: Prim. trading address, R/O address: England, Scotland, Wales, Northern Ireland	9,980,532
9.	Research&Development: All companies with a known value, 2014	3,042
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8 And 9	
	TOTAL	<u>516</u>

Source: FAME database.

Table 4-16 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of development costs sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-16 here

The statistical test in Table 4-16 reveals that changes in Current ratio, Return on Assets and Total liabilities on Total assets are significant. As the test is non-parametric, this means that there are significant changes in the rank of those financial ratios among the sample companies. The test of significance has been selected after conducting the test of normality as can be seen in (Table 1.5, Appendix) that reveals that the variables are not normally distributed

Table 4-16: Overall effect of FRS 102 of development costs sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences: Z	-2.570		-2.476		-2.110		(-.356)	
Asymp. Sig. (2-tailed)	.010		.013		.035		(.722)	
Descriptive Statistics:	Old GAAP	FRS 102	Old GAAP	FRS 102	Old GAAP	FRS 102	Old** GAAP	FRS** 102
Minimum	.035	.035	-.135	-.135	.089	.089	-9.959	-9.959
Median	**2.060**	**2.061**	**.088**	**.076**	**.550**	**.550**	**23.412**	**17.967**
Maximum	9.247	8.646	.440	.440	1.318	1.318	165894	165894
Mean	2.627	2.562	.102	.098	.570	.575	6521	6525
Std. Deviation	2.029	1.954	.100	.102	.299	.300	32506	32506
N	**40**		**40**		**40**		**(26)**	

Table 4-17 gives distribution of the effect of FRS 102 on financial ratios of development costs sample. The table was divided in two panels; Panel A shows the effect of FRS 102 on leasing regardless of whether the effect caused by the changes in development costs choices or not. Panel B shows the effect of FRS 102 which is likely to be associated with changes in development costs accounting. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the treatment of development costs.

Table 4-17 here

Although Table 4-17 illustrates that about half of the sample companies have been affected, there is only one affected company with changes in 'development costs'. Thus, according to this sub-sample, there is no effect on the financial ratios after FRS 102. Therefore, changes in the financial ratios have been caused by other different transactions other than the changes in development costs options and not dominated by treatment of development costs.

Table 4-17: Distribution of the effect of FRS 102 within development costs sample

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40

Panel A:	Impact on financial ratios regardless of whether the reason is change in Development costs or by changes in other transactions			
Number of all affected companies	**17**	**21**	**20**	**11**
Δ < 1%	3	2	3	3
Δ from 1% to < 3%	9	4	8	1
Δ from 3% to < 6%	1	4	2	0
Δ from 6% to < 10%	2	2	6	2
Δ from 10% to 20%	1	4	1	1
Δ > 20%	1	5	0	4
Not affected companies	*23*	*19*	*20*	*29*

Panel B:	Impact on financial ratios more likely to be associated with changes in Development costs under FRS 102 [1]			
Number of all affected companies	**1**	**1**	**1**	**1**
Δ < 1%	0	0	0	0
Δ from 1% to < 3%	1	0	0	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	1	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	1	0	1
Not affected companies	39	39	39	39

1 the focus in this panel is only on companies that have changes in Development costs accounting after the transition to FRS 102. There is only one company has adjustments related to Development costs accounting in the sample.

Summary of the main findings of development costs sub-sample

Although the test of significant in Table 4-16 shows that all the tested financial ratios have significantly been affected, Panel B in Table 4-17 shows that there is no effect on the financial ratios caused by the treatment of development costs. This therefore means that the impacts on the ratios caused by other transactions other than development costs treatment under FRS 102. This is expected by the interviewee that "development costs may affect Hi-Tech companies, however, the expected impact is low.

4.4.6 Pension cost sub-sample

FRS 102 does not permit the pension liability or asset to only be recognised in the consolidated financial statements, as permitted by FRS 17 under old UK GAAP. Under FRS 102 at least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves (FRC a, SEN 10, p. 3). The Interviewee 2 comments on this issue and mentions that the company size is crucial in terms of how the impact is significant "if you go to big firms, it has more impact, if you go to small firms it has no impact". In addition, Interviewee 1 illustrates that the groups are the most affected.

H0: The change in Pension costs accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium size companies in the UK

Table 4-18 is extracted from FAME database. It shows the search criteria used to select the sub-sample of Pension costs.

Table 4-18: Search criteria in FAME to identify the Pension costs sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,845,464
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,611
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,819
4.	Companies with IFRS accounts for the last available year	25,587
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,527,064
6.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,746,045
7.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	11,155
8.	Country: Prim. trading address, R/O address: England, Scotland, Wales, Northern Ireland	9,949,057
9.	Registered accounts type: Group	39,757
	Boolean search : (7 From (1 And 2 And 3 And Not 4 And 5 And 6)) And 8 And 9	
	TOTAL	3,837

Source: FAME database.

Table 4-19 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of pension costs sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-19 here

The statistical test in Table 4-19 reveals that the significant changes are only for both liquidity ratios and Total liabilities on total assets ratio. As the test is non-parametric, this means that there are significant changes in the rank of the aforementioned financial ratios among the sample companies. The test of significance has been selected after conducting the test of normality as can be seen in (Table 1.6, Appendix 1) that reveals that the variables are not normally distributed.

Table 4-19: Overall effect of FRS 102 of pension costs sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-2.271		-.070		-2.132		-.471	
Asymp. Sig. (2-tailed)	**.023**		.944		**.033**		.638	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.367	.063	-.474	-.476	.119	.119	-56.85	-57.08
Median	**1.296**	**1.296** [a]	**.044**	**.039**	**.610**	**.620**	**5.337**	**5.726**
Maximum	6.912	6.912	.260	.260	2.411	2.411	10162	10162
Mean	1.808	1.807	.041	.041	.694	.699	323.5	315.5
Std. Deviation	1.482	1.556	.110	.110	.438	.444	1766	1740
N	40		40		40		33	

Notes: a. see table 1.6.1 in Appendix 1.

Table 4-20 gives distribution of the effect of FRS 102 on financial ratios of pension costs sample. The table was divided in two panels; (panel A) shows the effect of FRS 102 on pension costs regardless of whether the effect caused by the changes in pension costs choices or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in pension costs accounting. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the treatment of pension costs.

Table 4-20 here

Although Table 4-20 illustrates that about third of the sample companies have been affected, there is only one affected company with changes in 'pension costs'. Thus, according to this sub-sample, we have found no effect on the financial ratios related to pension costs accounting. Therefore, changes in the financial ratios have been caused by other different transactions other than the changes in pension costs options.

Table 4-20: Distribution of the effect of FRS 102 within Pension costs sample

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	Impact on financial ratios regardless of whether the reason is change in pension costs or by changes in other transactions			
Number of all affected companies	**13**	**16**	**15**	**14**
Δ < 1%	3	3	6	3
Δ from 1% to < 3%	4	1	4	3
Δ from 3% to < 6%	2	3	1	1
Δ from 6% to < 10%	2	4	3	1
Δ from 10% to 20%	0	1	1	3
Δ > 20%	2	4	0	3
Not affected companies	*27*	*24*	*25*	*26*
Panel B:	Impact on financial ratios more likely to be associated with changes in pension costs under FRS 102 [1]			
Number of all affected companies	**0**	**1**	**1**	**1**
Affected companies Δ < 1%	0	0	1	0
Δ from 1% to < 3%	0	0	0	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	1	0	1
Not affected companies	40	39	39	39

1 the focus in this panel is only on companies that have changes in pension costs accounting after the transition to FRS 102. There is only one company has adjustments related to pension costs accounting in the sample.

Summary of the main findings of pension costs sub-sample

Although the test of significance in table 4-19 shows that some of the tested financial ratios have significantly been affected, Panel B in Table 4-20 shows that there is no effect on the financial ratios caused by the treatment of pension costs. This therefore means that the impacts on the ratios caused by other transactions other than pension costs treatment under FRS 102. This is against what was expected by the interviews that the groups are the most affected. However, Interviewee 1 mentions that the company size is crucial in terms of how the impact is significant "if you go to big firms, it has more impact, if you go to small firms it has no impact".

4.4.7 Intra group loans sub-sample

Under old UK GAAP a loan with a below market rate of interest was measured at the amount receivable/payable, FRS 102 requires that such a loan is measured initially at the present value of the future cash flows discounted at a market rate. Any difference arising on initial measurement is subsequently allocated over the term of the loan using the effective interest method (FRC, 2015a, 2015, p.14). For some groups, the impact could be significant if loans are not made on market terms and could result in different values being recognised in each company within the group (Grant Thornton, 2014, p. 4). Although this will cancel out on consolidation, it does make more work in individual accounts. However, there are ways of avoiding this issue and the most common one is to specify in loan agreements that balances are payable on demand, but in this case the borrower has to classify the liability as current (Accountancy Magazine, 2016, p. 63).

H0: The change in Intra group loans accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of liquidity, profitability and interest cover of medium size companies in the UK

Table 4-21 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of Intra group loans.

Table 4-21: Search criteria in FAME to identify the intra group loans[40] sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,845,464
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,611
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,819
4.	Companies with IFRS accounts for the last available year	25,587
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,527,064
6.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,746,045
7.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	11,155
8.	Country: Prim. trading address, R/O address: England, Scotland, Wales, Northern Ireland	9,949,057
9.	Registered accounts type: Group	39,757
	Boolean search : (7 From (1 And 2 And 3 And Not 4 And 5 And 6)) And 8 And 9	
	TOTAL	3,837

Source: FAME database.

Table 4-22 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of intra group loans sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-22 here

The statistical test in table 4-22 reveals that the significant changes are only for liquidity ratios and Total liabilities on total assets ratio. For current ratio, there are 12 companies with decreases and only one company with an increase in the ratio. As for Total liabilities on total assets ratio, there are 11 companies with increases and 2 companies with decreases in the ratios after FRS 102 adoption (see Table 1.6.1, Appendix 1). As the test is non-parametric, this means that there are significant changes in the rank of the aforementioned financial ratios among the sample companies. The test of significance has been selected after conducting the test of normality as can be seen in (Table 1.6 Appendix 1) that reveals that the variables are not normally distributed.

---

[40] This table is exactly the same table of pension cost as the same sub-sample has been used to investigate both pension cost and intra group loans effects.

Table 4-22: Overall effect of FRS 102 of intra group loans sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-2.271		-.070		-2.132		-.471	
Asymp. Sig. (2-tailed)	**.023**		.944		**.033**		.638	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.367	.063	-.474	-.476	.119	.119	-56.853	-57.080
Median	1.296	1.296	.044	.039	.610	.620	5.337	5.726
Maximum	6.912	6.912	.260	.260	2.411	2.411	10162	10162
Mean	1.808	1.807	.041	.041	.694	.699	323.5	315.5
Std. Deviation	1.482	1.556	.110	.110	.438	.444	1766	1740
N	40		40		40		33	

Table 4-23 gives distribution of the effect of FRS 102 on financial ratios of intra group loans sample. The table is divided in two panels; (panel A) shows the effect of FRS 102 on intra group loans regardless of whether the effect caused by the changes in intra group loans or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in intra group loans accounting. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the treatment of intra group loans.

Table 4-23 here

Although Table 4-23 illustrates that about third of the sample companies have been affected, there is no affected company with changes in intra group loans. Thus, according to the group sub-sample, there is no effect on the financial ratios related to intra group loans accounting. Therefore, changes in the financial ratios have been caused by other different transactions other than the changes in treatment of intra group loans.

Table 4-23: Distribution of the effect of FRS 102 within Intra group loans* sample

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40

Panel A:	Impact on financial ratios regardless of whether the reason is change in Intra group loans accounting or by changes in other transactions			
Number of all affected companies	**13**	**16**	**15**	**14**
Δ < 1%	3	3	6	3
Δ from 1% to < 3%	4	1	4	3
Δ from 3% to < 6%	2	3	1	1
Δ from 6% to < 10%	2	4	3	1
Δ from 10% to 20%	0	1	1	3
Δ > 20%	2	4	0	3
Not affected companies	*27*	*24*	*25*	*26*

Panel B:	Impact on financial ratios more likely to be associated with changes in Intra group loans under FRS 102 [1]			
Number of all affected companies	**0**	**0**	**0**	**0**
Δ < 1%	0	0	0	0
Δ from 1% to < 3%	0	0	0	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	0	0	0
Not affected companies	40	40	40	40

* This sample is the same sample of Pension costs sample. So only the panel B of the table differs from that of Pension costs sample.

1 the focus in this panel is only on companies that have changes in Intra group loans accounting after the transition to FRS 102. There is no group has adjustments related to Intra group loans accounting in the group accounts.

Summary of the main findings of intra group loans sub-sample

Although the test of significance table 4-22 shows that some of the tested financial ratios have significantly been affected, Panel B in Table 4-23 shows that there is no effect on the financial ratios caused by the treatment of intra group loans. This therefore means that the impacts on the ratios are caused by other transactions other than intra group loans treatment under FRS 102. This is against what was expected that more interest expenses might be recognized and then might affect profitability and Interest Coverage ratios, as under old UK GAAP a loan with a below market rate of interest was measured at the amount receivable/payable, but under FRS 102 requires that such a loan is measured initially at the present value of the future cash flows discounted at a market rate. Any difference arising on initial measurement is subsequently allocated over the term of the loan using the effective interest method (FRC, 2015a, p.).

4.4.8 Intangibles (recognition + amortization) sub-sample

The FRS 102 criteria for recognition of the identifiable assets and liabilities of an acquiree differ from current UK GAAP, where such assets and liabilities have to be capable of being disposed of or settled separately. There will be no equivalent 'separation' requirement in FRS 102, meaning more intangible assets are likely to be identified separately from goodwill (Grant Thornton, 2013, p. 1). This change may affect some medium size companies especially those with regular business combinations as has been illustrated by the Interviewees 1 and 2 ". However, such transactions are not popular among medium size companies, as mentioned by Interviewee 2.

H0: The change in Intangible assets accounting (recognition + amortization) from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium size companies in the UK

Table 4-24 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of the intangible assets (recognition + amortization).

Table 4-24: Search criteria in FAME to identify the intangible assets sample (recognition + amortization)

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,820,883
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	27,864
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,190
4.	Companies with IFRS accounts for the last available year	25,199
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health.	6,408,699
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	10,966
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,700,380
8.	Acquisition&Disposal: All companies with a known value, 2014	2,821
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8	
	TOTAL	486

Source: FAME database.

Table 4-25 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of intangible assets sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-25 here

The statistical test in table 4-25 reveals that the significant changes are only for Total liabilities on total assets ratios. Table 1.7.1, Appendix 1 shows that for Total liabilities on total assets ratio, there are 16 companies with increases and only 3 companies with decreases in the ratio after the transition. As the test is non-parametric, this means that there are significant changes in the rank of the aforementioned financial ratios among the sample companies. The test of significance has been selected after conducting the test of normality as can be seen in (Table 1.7, Appendix 1) that reveals that the variables are not normally distributed.

Table 4-25: Overall effect of FRS 102 of the intangible assets sample
(Recognition + amortization)

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-1.647		-.725		-3.100		-.450	
Asymp. Sig. (2-tailed)	.099		.468		**.002**		.653	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.391	.391	-.912	-.912	.081	.081	-144	-122
Median	1.239	1.225	.028	.031	.603	.618	3.911	4.656
Maximum	10.325	10.325	.438	.438	1.712	1.712	597	597
Mean	1.773	1.691	.013	.014	.657	.671	39.236	38.622
Std. Deviation	2.053	1.774	.215	.206	.346	.336	131.2	130.1
N	40		40		40		38	

Table 4-26 gives distribution of the effect of FRS 102 on financial ratios of intangible assets sample (recognition + amortization). The table was divided in two panels; (panel A) shows the effect of FRS 102 on intangible assets sample regardless of whether the effect caused by the changes in intangible assets or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in intangible assets accounting. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the treatment of intangibles.

Table -26 here

The overall impact of intangible assets accounting is only significant for the financial structure ratios that reflect an increase in the total liabilities. However, as can be seen in Table 4-26 there are several individual companies with changes in recognition and amortization of intangibles assets accounting have been affected after FRS 102 adoption. For instance, we can see that 7 out of 40 companies have changes in Total liabilities on total assets and 5 companies that have changes in the other ratios (liquidity, and I Cover ratios). However, it is not for sure that such

changes in financial ratios are only because of changes in intangible assets accounting, as the effect could be caused by a collection of different transactions besides the changes in intangibles[41].

Table 4-26: Distribution of the effect of FRS 102 within Intangibles sample

(Recognition + amortization)

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	**Impact on financial ratios regardless of whether the reason is change in Intangible assets or by changes in other transactions**			
Number of all affected companies	**15**	**17**	**21**	**18**
Δ < 1%	5	0	9	2
Δ from 1% to < 3%	3	5	4	4
Δ from 3% to < 6%	4	3	2	2
Δ from 6% to < 10%	2	0	1	2
Δ from 10% to 20%	0	6	2	1
Δ > 20%	1	3	3	7
Not affected companies	*25*	*23*	*19*	*22*
Panel B:	**Impact on financial ratios more likely to be associated with changes in Intangibles assets under FRS 102 [1]**			
Number of all affected companies	**5**	**7**	**7**	**6**
Δ < 1%	2	0	4	1
Δ from 1% to < 3%	0	2	1	1
Δ from 3% to < 6%	2	1	1	1
Δ from 6% to < 10%	0	0	0	1
Δ from 10% to 20%	0	3	0	0
Δ > 20%	1	1	1	2
Not affected companies	*35*	*33*	*33*	*34*

---

[41] The non-parametric correlation (Spearman's rho) shows that there is no significant correlation between the changes in recognition and amortization of intangible assets and the financial ratios. Moreover, the highest Correlation Coefficient has been for ROA (- 0.23) and all the other Coefficients have been less than 0.20.

As there are several companies that have changes in intangible assets accompanied with changes in financial ratios, more in-depth analysis has been conducted to distinguish companies that are only affected as a result of changes in intangible assets accounting from those companies that have changes caused by other types of transactions. Table 4-27 gives details regarding the change in intangible assets items and the associated deferred tax. Also, the table shows whether the affected companies have other transactions other than changes in intangible assets. From the intangible assets sub-sample, 9 companies had changes in the treatment of intangible assets item which is detailed as follows:

Table 4-27 here

Table 4-27 reveals that there is more recognition of intangible assets whether recognizing new intangibles or as reclassification. The reclassification, in turn, is from tangible assets to intangible assets as well as from an intangibles asset to another. Also, as can be seen from the table that there are changes caused by other different items other than changes in intangibles.

Therefore, differences between old UK GAAP and FRS 102 in intangible assets accounting could be one reason, among other transactions, that have led to changes in the financial ratios after FRS 102 adoption. In other words, the change in the financial ratios has not been dominated by the changes in assets but it is rather as a result of a collection of changes in different items. However, there have been several companies with changes in intangibles whether in terms of new recognition of intangibles or reclassification whether from tangible assets or between intangible assets.

Table 4-27: Further analysis on the companies with changes in recognition and amortization of intangible assets

Company	Changes caused by FRS 102 on/between Intangible assets	Changes in the * associated deferred tax	Other transactions other than changes in Intangibles
1	Reclassification from Tangibles to Intangibles by £494,691/Fixed assets = 0.05.	0*	Revaluation of freehold property and its Deferred Tax.
2	Reclassification from goodwill to customer relationships by 22,494,257/Fixed assets = 0.82.	0	No
3	Decrease in intangibles (goodwill) (-£271,851). Deemed as fully amortized. -£271,851/Fixed assets = 0.17.	0	No
4	- Decrease in Goodwill -£620,609/Fixed assets = 0.40 and, - Increase in other intangibles +£761,865/Fixed assets = 0.49 (Customer contracts with fair value considered to be acquired on business combination).	£154,762/Total liabilities = 0.035.	Reclassification between short and long-term liabilities. Discount Intra-group loans to PV.
5	Increase in amortization 632,000/Fixed assets = 0.02.	0	Debt at fair value
6	Reclassification from Tangibles to Intangibles by £393,791/Fixed assets = 0.04 (software assets).	0	No
7	Reclassification between goodwill and customer relationships: Decrease in goodwill by £2,258,983/Fixed assets = 0.63. Increase in customer relationships by	there is but difficult to distinguish the value	No

Company	Changes caused by FRS 102 on/between Intangible assets	Changes in the * associated deferred tax	Other transactions other than changes in Intangibles
	£2,751,365/Fixed assets = 0.77. Overall, increase by 0.14 in intangibles.		
8	Increase in Intangibles +£ 330,171/Fixed assets = 0.04: Recognition of additional Customer relationships and unregistered intellectual property both are 1,664,723/fixed assets = 0.21. Recognition of Deferred tax liabilities against these intangibles. Reduction in goodwill 1,331,778/Fixed assets = 0.17. Increase in amortization is 2,557.	£330,171/Total liabilities = 0.03.	No
9	Reclassification from Tangibles to Intangibles by £8,307/Fixed assets = 0.005 (Website development costs).	0	1. Recognition of current assets investments under fair value. 2. Reduction in Interest income on pension scheme assets. 3. Increase in profit and liability as a result of movements in fair value of forward foreign exchange contracts. 4. Revaluation of financial instruments at FVTP&L.

Source: hand-collected data from the actual accounts.

* There is other deferred tax but it is not related to changes in recognition of intangibles assets, and this applies on the other companies as well.

Summary of the main findings of intangible assets sample (recognition + amortization)

Although the test of significance from table 4-25 shows that there is no significant impact on profitability ratios, there is a significant increase in leverage. Moreover, Panel B in Table 4-26 shows that companies with changes in intangibles assets have effects on their financial ratios. The further analysis in Table 4-27 shows that, out of the 40 companies, there are 5 companies have reclassified their intangibles either from tangible assets to intangible assets or between intangibles. Also, there are 3 companies with increases in amortization. Thus, after the transition to FRS 102, there are more recognition and amortization for intangible assets. This is consistent with what was expected that more intangible assets are likely to be identified separately from goodwill (Grant Thornton, 2013, p. 1). This change may affect some medium size companies especially those with regular business combinations as was illustrated by the Interviewees 1 and 2 ".

4.4.9 Intangibles (amortization) sub-sample

Regarding the useful economic lives for intangible assets and goodwill, old UK GAAP presumes a maximum useful life of 20 years, but this can be rebutted if a longer or indefinite life can be justified. Under FRS 102, intangible assets and goodwill always have a finite life. If no reliable estimate can be made, the useful life will be limited to a maximum of 10 years (Grant Thornton, 2013, p. 2). FRS 102 requires that intangibles (including goodwill) are amortised over their useful life but to be able to justify where the life is more than ten years. On transition this could lead to some large amounts being written off goodwill. This can affect P&L by increasing yearly amortised expenses. Although it seems to be some significant differences after the transition to FRS 102, Interviewee 1 illustrates that there is no that much impact as "no many intangible assets with indefinite life previously. ..… the clients just justify the lives that they had".

Therefore, the transition from old UK GAAP to FRS 102 is not expected to have a significant impact on financial reporting.

H0: The change in amortization accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium size companies in the UK

Table 4-28 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of the amortization of intangible assets.

Table 4-28: Search criteria in FAME to identify the amortization sample

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,866,023
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,802
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,968
4.	Companies with IFRS accounts for the last available year	25,732
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health.	6,615,815
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh.	11,202
	Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); subs. with unknown %)	(incl.
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,771,786
8.	Intangible Assets: All companies with a known value, 2014	216,789
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8	
	TOTAL	3,800

Source: FAME database.

Table 4-29 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of intangible assets sample (amortization). The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table -29 here

The statistical test in the table 4-29 reveals that there is no any significant effect on any financial ratio after FRS 102 adoption. The test of significance has been selected after conducting the test of normality as can be seen in (Table 1.8, Appendix 1) that reveals, except for Total liabilities on total assets, that the variables are not normally distributed.

Table 4-29: Overall effect of FRS 102 of the amortization sample

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences: **Z**	-.800		-1.155		-.594		-.420	
Asymp. Sig. (2-tailed)	.424		.248		.552		.674	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.249	.249	-.143	-.198	.093	.140	-2813	-3493
Median	1.228	1.212	.063	.057	.670	.669	10.276	10.276
Maximum	3.794	3.794	.203	.203	1.193	1.107	5614	1206
Mean	1.441	1.431	.062	.059	.660	.664	54.861	-83.343
Std. Deviation	.796	.787	.069	.075	.260	.247	1141	671
N	40		40		40		38	

Table 4-30 gives distribution of the effect of FRS 102 on financial ratios of intangible assets sample (amortization). The table was divided in two panels; (panel A) shows the effect of FRS 102 on intangible assets sample regardless of whether the effect caused by the changes in intangible assets or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in intangible assets accounting. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the treatment of intangibles.

Table -30 here

Although Table 4-30 illustrates that about more than 10 companies have been affected, there is only one affected company with changes in 'amortization accounting'. Thus, according to this sub-sample, we have found no effect on the financial ratios related to amortization accounting. Therefore, changes in the financial ratios have been caused by other different transactions other than the changes in amortization.

Table 4-30: Distribution of the effect of FRS 102 within the amortization sample

Ratios: Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40

Panel A:	**Impact on financial ratios regardless of whether the reason is change in amortization or by changes in other transactions**			
Number of all affected *companies*	**11**	**14**	**13**	**8**
Δ < 1%	2	1	2	0
Δ from 1% to < 3%	1	1	2	1
Δ from 3% to < 6%	6	2	3	1
Δ from 6% to < 10%	1	5	4	1
Δ from 10% to 20%	1	1	1	1
Δ > 20%	0	4	1	4
Not affected companies	*29*	*26*	*27*	*32*

Panel B:	**Impact on financial ratios more likely to be associated with changes in amortization under FRS 102** [1]			
Number of all affected *companies*	**1**	**1**	**1**	**1**
Δ < 1%	1	0	1	0
Δ from 1% to < 3%	0	0	0	0
Δ from 3% to < 6%	0	0	0	0
Δ from 6% to < 10%	0	0	0	1
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	1	0	0
Not affected companies	39	39	39	39

Summary of the main findings of intangible assets sample (amortization)

The test of significance in table 4-29 shows that there is no significant effect on the financial ratios. Also, from Panel B in Table 4-30, it seems that there is no effect on the financial ratios caused by amortization accounting under FRS 102. Although it was expected on transition this could lead to some large amounts being written off goodwill and then it can affect P&L, Interviewee 1 illustrates that there is no that much impact as "no many intangible assets with indefinite life previously. ..… the clients just justify the lives that they had".

4.4.10 Water companies sample

Under FRS 102 deferred tax is recognised based on a 'timing differences plus' approach which requires to recognise deferred tax, among others, on asset revaluations. Also, the interviewees mentioned that one of the areas of deferred tax effect is revaluation of PPE. More specifically, Interviewee 1 says that "the big impact could be as a result of revaluation of investment properties and PPE. ….. has been a quite significance for some of property groups. ….. the other ones that have been really impacted the water companies, deferred tax is a major issue".

H0: The change in deferred tax on revaluation of properties from old UK GAAP to FRS 102 has had no significant impact on leverage of medium size companies in the UK

Table 4-31 has been extracted from FAME database. It shows the search criteria used to select the Water companies sample.

Table 4-31: Search criteria in FAME to identify the Water companies

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,820,883
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	27,864
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,190
4.	Companies with IFRS accounts for the last available year	25,199
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health	6,408,699
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	10,966
7.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,700,380
8.	UK SIC (2007): All codes: 4291 - Construction of water projects, 42910 - Construction of water projects, 253 - Manufacture of steam generators, except central heating hot water boilers, 2530 - Manufacture of steam generators, except central heating hot water boilers, 25300 - Manufacture of steam generators, except central heating hot water boilers, 36 - Water collection, treatment and supply, 360 - Water collection, treatment and supply, 3600 - Water collection, treatment and supply, 36000 - Water collection, treatment and supply.	4,604
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8	
	TOTAL	9

Source: FAME database.

Table 4-32 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of Water companies' sample. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-32 here

The statistical test table 4-32 reveals that there is no any significant effect on any financial ratio after FRS 102 adoption (according to both the parametric and non-parametric statistical tests). The test of normality shows that all the variables are normally distributed (as can be seen in (Table 1.10, Appendix 1).

Table 4-32: Overall effect of FRS 102 of the Water companies

Ratios / Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-1.342		-.552		.000		-1.604	
Asymp. Sig. (2-tailed) P-value	.180 (.219)[a]		.581(.803) [a]		1.000 (.969) [a]		.109 (.275) [a]	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.763	.756	-.075	-.070	.314	.314	-28.386	-28.386
Median	1.359	1.359	.057	.057	.536	.542	7.514	7.514
Maximum	3.046	3.046	.219	.212	1.252	1.265	59.052	57.444
Mean	1.440	1.436	.072	.072	.660	.660	8.575	8.257
Std. Deviation	.758	.761	.105	.101	.304	.307	30.583	30.066
N	7		7		7		6	

Table 4-33 gives distribution of the effect of FRS 102 on financial ratios of Water companies sample. The table was divided in two panels; (panel A) shows the effect of FRS 102 on Water companies sample regardless of whether the effect caused by the changes in deferred tax on revolutions of properties or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in revolutions of properties of water companies. In other words, Panel B of the table focuses on the changes on the financial ratios only for the water companies with changes in the property revaluation.

Table 4-33 here

Also, Table 4-33 shows that there is only one company have changes in its financial ratios (except for liquidity ratios) as a result of revaluation of its properties. Thus, according to this population, there has been only one company with effects on its financial ratios related to property revaluation. Therefore, the effects on the other companies have been caused by other different transactions and not dominated by the changes in the revaluation of properties.

Table 4-33: Distribution of the effect of FRS 102 within Water companies

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	7	7	7	7

Panel A:	Impact on financial ratios regardless of whether the reason is change in revaluation of Land and Buildings or by changes in other transactions			
Number of all affected companies	**2**	**3**	**3**	**3**
Δ < 1%	0	1	0	2
Δ from 1% to < 3%	2	1	3	1
Δ from 3% to < 6%	0	1	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	0	0	0
Not affected companies	*5*	*4*	*4*	*4*

Panel B:	Impact on financial ratios more likely to be associated with changes in revaluation of Land and Buildings under FRS 102 [1]			
Number of all affected companies	**0**	**1**	**1**	**1**
Δ < 1%	0	0	0	1
Δ from 1% to < 3%	0	0	1	0
Δ from 3% to < 6%	0	1	0	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	0	0	0	0
Not affected companies	*7*	*6*	*6*	*6*

Summary of the main findings of water companies sample

The test of significance in Table 4-32 showed that there is no significant effect on the financial ratios, and more specifically there is no effect on leverage as a result of deferred tax on revaluation of properties. Also, from Panel B in Table 4-33, it seems that there is no effect on the financial ratios caused by deferred tax associated with property revaluation. This is inconsistent with what was expected by the Interviewee 1 that deferred tax for water companies is a major issue.

4.4.11 Sub-sample of deferred tax on Land and Buildings revaluation

Under FRS 102 deferred tax is recognised based on a 'timing differences plus' approach which requires to recognise deferred tax, among others, on asset revaluations. Also, the interviewees mentioned that one of the areas of deferred tax effect is revaluation of PPE and more specifically the properties. Moreover, by looking at many actual accounts of medium size companies after FRS 102 adoption, I have observed several cases reveal some deferred tax effects as a result of revaluation of land and buildings.

H0: The change in deferred tax accounting from old UK GAAP to FRS 102 has had no significant impact on leverage of medium size companies in the UK

Table 4-34 has been extracted from FAME database. It shows the search criteria used to select the sub-sample of the deferred tax on Land and buildings.

166

Table 4-34: Search criteria in FAME to identify the sub-sample of deferred tax on Land and buildings

1.	All active companies (not in receivership nor dormant) and companies with unknown situation	3,869,287
2.	Number of Employees: min=50, max=249, 2015, 2014, for all the selected periods	28,814
3.	Turnover (th GBP): min=6,500, max=25,900, 2015, 2014, for all the selected periods	26,981
4.	Companies with IFRS accounts for the last available year	25,737
5.	Major sectors: Primary Sector (agriculture, mining, etc.), Food, beverages, tobacco, Textiles, wearing apparel, leather, Wood, cork, paper, Publishing, printing, Chemicals, rubber, plastics, non-metallic products, Metals&metal products, Machinery, equipment, furniture, recycling, Gas, Water, Electricity, Construction, Wholesale&retail trade, Hotels&restaurants, Transport, Post and telecommunications, Other services, Education, Health.	6,620,206
6.	Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareh. Subs, owned by a company included in the group that are GUO or shareh. (min 50.01, max 100); (incl. subs. with unknown %)	11,204
7.	Country: Prim. trading address, R/O address: England, Scotland, Wales, Northern Ireland	9,993,853
8.	Number of years with accounts: 10 years, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years	4,772,915
9.	Land&Buildings: All companies with a known value, 2014	74,473
	Boolean search : (6 From (1 And 2 And 3 And Not 4 And 5)) And 7 And 8 And 9	
	TOTAL	8,353

Table 4-35: Overall effect of FRS 102 of the sample of deferred tax on Land and buildings

Ratios	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Analysis								
Significance of differences:								
Z	-1.400		-1.125		-2.244		-2.439	
Asymp. Sig. (2-tailed)	.161		.261		**.025**		**.015**	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.213	.213	-.311	-.311	.060	.060	-1.922	-1.601
Median	1.536	1.536	.069	.069	.603	.603	1.083	1.216
Maximum	7.871	7.871	.424	.422	2.936	2.936	52.858	56.831
Mean	2.029	2.008	.076	.075	.678	.685	3.641	3.993
Std. Deviation	1.495	1.517	.113	.114	.553	.553	8.583	9.305
N	40		40		40		36	

Table 4-35 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of the sample of deferred tax on Land and buildings. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics of the ratios.

Table 4-35 here

Table 4-35 shows that the significant effects are only on Total liabilities on total assets and on interest coverage ratio. As for Interest Coverage ratio, there are 8 companies with reductions and 5 companies with increases in the ratio (see table 1.9.1, Appendix 1). The test of significance has been selected after conducting the test of normality as can be seen in (Table 1.9, Appendix 1) that reveals that the variables are not normally distributed.

Table 4-35: Overall effect of FRS 102 of the sample of deferred tax on Land and buildings

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-1.400		-1.125		-2.244		-2.439	
Asymp. Sig. (2-tailed)	.161		.261		**.025**		**.015**	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.213	.213	-.311	-.311	.060	.060	-1.922	-1.601
Median	1.536	1.536	.069	.069	.603	.603	1.083	1.216
Maximum	7.871	7.871	.424	.422	2.936	2.936	52.858	56.831
Mean	2.029	2.008	.076	.075	.678	.685	3.641	3.993
Std. Deviation	1.495	1.517	.113	.114	.553	.553	8.583	9.305
N	40		40		40		36	

Table 4-36 gives distribution of the effect of FRS 102 on financial ratios of the sample of deferred tax on Land and buildings. The table was divided in two panels; (panel A) shows the effect of FRS 102 on companies with land and buildings regardless of whether the effect caused by the changes in deferred tax on the revaluation of lands and buildings or not. (Panel B) shows the effect of FRS 102 which is likely to be associated with changes in deferred tax on the revaluation of lands and buildings. In other words, Panel B of the table focuses on the changes on the financial ratios only for the companies with changes in the property revaluation.

Table 4-36 here

Although Table 4-36 shows that about more than 10 companies have been affected, there are only two affected company with changes in the revaluation of land and buildings. Thus, according to this sub-sample, we have found very little effect on the financial ratios related to the deferred tax on the revaluation of land and buildings. Therefore, changes in the financial ratios have been caused by other different transactions and not dominated by the changes in the revaluation of land and buildings.

Table 4-36: Distribution of the effect of FRS 102 within the deferred tax on the revaluation of Land and Buildings

Ratios Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Sample size	40	40	40	40
Panel A:	**Impact on financial ratios regardless of whether the reason is change in revaluation of Land and Buildings or by changes in other transactions**			
Number of all affected companies	**8**	**13**	**11**	**14**
Δ < 1%	2	6	4	3
Δ from 1% to < 3%	1	0	4	3
Δ from 3% to < 6%	2	1	2	1
Δ from 6% to < 10%	0	1	0	0
Δ from 10% to 20%	1	2	0	1
Δ > 20%	2	3	1	6
Not affected companies	*32*	*27*	*29*	*26*
Panel B:	**Impact on financial ratios more likely to be associated with changes in evaluation of Land and Buildings under FRS 102 [1]**			
Number of all affected companies	**2**	**2**	**2**	**2**
Δ < 1%	0	0	0	0
Δ from 1% to < 3%	1	0	1	1
Δ from 3% to < 6%	0	1	1	0
Δ from 6% to < 10%	0	0	0	0
Δ from 10% to 20%	0	0	0	0
Δ > 20%	1	1	0	1
Not affected companies	*38*	*38*	*38*	*38*

Summary of the main findings land and buildings sub-sample

Although the test of significance in table 4-35 shows a highly significant increase in leverage which is expected as a result of the deferred tax associated with the revaluation, there is no impact on profitability ratios (unexpectedly). Also, Panel B in Table 4-36 shows that there are only two companies (out of 40) with changes in their financial ratios that have, at the same time, revalued their land and buildings. This suggests that changes in the tested financial ratios cannot be attributable to deferred tax on revaluation of land and buildings. Moreover, the result is inconsistent with what was expected by the interviewees that mentions that one of the areas of deferred tax effect is revaluation of PPE and more specifically the properties.

4.5   The results: Total sample

4.5.1   Impact on financial ratios

Table 4-37 displays the test of significance as well as the descriptive statistics of the overall effect of FRS 102 of all sub-samples at aggregation level. The table shows how significant the effect on the financial ratios as well as it presents the descriptive statistics.

Table 4-37 here

Regarding the descriptive statistics, Median[42], in the Table 4-37, shows that there are decreases in liquidity ratios (Current Ratio and profitability ratio (Return on Assets) and Interest Cover, while there are increases in leverage.

As for the significance of the effect, Table 4-37 illustrates that, except ROE, all the other financial ratios have been significantly affected as a result of the transition from old UK GAAP to FRS 102. This means that there are highly (.000) significant changes in the ranks of the financial ratios among the companies in the entire sample. Regarding Current ratio, there are 78 companies with decreases and 28 companies with increases in the ratio. For Return on Assets ratio, there are 77 companies with reductions and 51 companies with increases in the ratio. Whereas Interest Coverage ratio, there are 59 companies with reductions and 43 companies with increases in the ratio after the transition to FRS 102 (see table 1.11.1, Appendix 1). The non-parametric test of paired samples has been used after conducting the test of normality as can be seen in (table 1.11, Appendix 1) that reveals that all variables are not normally distributed.

---

[42] Also, by looking at Means, it gives similar indications, but we focus on Median as the variables are not normally distributed and consequently the non-parametric statistical test is based on Median rather than the Mean.

Table 4-37: Overall effect of FRS 102 of all sub-samples (total sample)

Ratios Analysis	Current ratio		Return on assets ratio		Total liabilities on total assets		Interest coverage	
Significance of differences:								
Z	-4.263		-2.966		-5.414		-1.657	
Asymp. Sig. (2-tailed) P- Value	**.000**		**.003**		**.000**		.097	
Descriptive Statistics:	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**	**Old GAAP**	**FRS 102**
Minimum	.007	.007	-.912	-.912	.034	.033	-12456	-3493
Percentiles 25 (First Quartile)	1.073	1.061	.020	.020	.403	.419	2.130	2.172
Median	**1.441**	**1.417**	**.059**	**.057**	**.582**	**.588**	**9.686**	**9.490**
Percentiles 75 (Third Quartile)	2.235	2.167	.112	.111	.765	.774	56.693	52.080
Maximum	17.744	17.744	.746	.746	11.915	12.265	165894	165894
Mean	1.951	1.917	.066	.064	.647	.657	1281	1294
Std. Deviation	1.734	1.696	.136	.138	.683	.699	10590	10541
N	368		368		368		306	

Table 4-38 shows the numbers and percentages of the affected companies relative to the total sample. The table also illustrates the magnitude of the impact according to different levels (%).

Table 4-38: Distribution of the effect of FRS 102 for all sub-samples (total sample)

Ratios: Δ in ratio	Current ratio	Return on assets ratio	Total liabilities on total assets	Interest coverage
Size of total sample[43]	368	368	368	368
All affected companies	**106**	**146**	**148**	**122**
% of affected companies:	29%	40%	40%	33%
Δ < 6%	21%	18%	27%	13%
Δ ≥ 6%	8%	22%	13%	20%
< 1%	25	24	42	21
Δ from 1% to < 3%	30	22	38	22
Δ from 3% to < 6%	22	20	18	6
Δ from 6% to < 10%	11	19	25	14
Δ from 10% to 20%	5	21	15	15
> 20%	13	40	10	44
Not affected companies	*262*	*222*	*220*	*246*

---

[43] Changes in net income and in equity are in 128 and 132 companies, respectively, out of 368 companies (35% and 36%).

Table 4-38 shows, for instance, that 29% of the medium size companies had change in Current Ratio, 40% of them had changes in Return on Assets and 36% of these companies had changes in Total Liabilities on Equity. For more details, 10% of the companies in the whole sample had changes in Current Ratio by more than 6%. Also, for Return on Assets 22% of the companies in the whole sample had changes more than 6%, whereas 13% of the companies had changes in Total Liabilities on Total assets more than 6%. To sum up, about 30% of the companies had change in liquidity ratios, 40% had change in profitability ratios and about 40% change in capital structure ratio.

4.5.2 Volatility in profits

Table 4-39 gives the descriptive statistics of the total sample about the volatility in profits.

Table 4-39: Volatility in profits

	Standard deviation	Lower values	Upper values
Net Income **old UK GAAP** **(2014)**	1,375,988	-9,379,664 -8,004,000 -6,964,726 -4,926,561	4,148,560 4,967,000 5,481,000 6,019,856
Net Income **FRS 102** **(2014)**	1,662,585 ↑	-12,500,000 ↓ -12,300,000 ↓ -7,639,904 ↓ -6,964,726 ↓	5,481,000 ↑ 6,019,856 ↑ 6,763,319 ↑ 7,979,012 ↑

As the standard deviation shows the level of variability (Aisbitt, 2006) and it is used as a proxy for volatility (Cho, 1998), Table 4-39 shows that standard deviation of net income after FRS 102 implementation (1,662,585) is clearly bigger than the standard deviation of net income under old UK GAAP (1,375,988). Also, the lower values of net income, after FRS 102 adoption, have decreased and the upper values have increased. This is considered as an indication for the variations in net income which means more volatility. Accordingly, as was expected, this indicates that there was more volatility in profit after the application of FRS 102.

Moreover, Return on Assets ratio which is significantly affected after the transition (as can be seen in Table 4-37) shows also that there are (out of 368 companies in the total sample) 77 companies with decreases and 51 companies with increases in the ratio (see table 1.11.1, Appendix 1). This is another indication about volatility in profit after FRS 102 implementation, and more specifically due to fair value accounting.

4.5.3 Size effect

Table 4-40 presents the descriptive statistics about how the FRS 102 effects vary according to company size.

Table 4-40: The affected companies according to their sizes (Total sample)

Δ Ratios	Size (average of total assets)			
	Not or slightly affected companies*	**Affected companies***	**Affected (+) increase**	**Affected (-) decrease**
	Average of total assets	Average of total assets	Average of total assets	Average of total assets
Δ in Liquidity	£12,431,750	£27,735,583	£41,245,011	£21,945,828
	N = 328 companies	N = 40*	N = 12	N = 28
Δ Profitability	£10,668,955	£24,996,931	£27,306,279	£22,580,172
	N = 280	N = 88*	N = 45	N = 43
Δ Leverage	£10,850,505	£24,898,169	£27,471,483	£16,534,898
	N = 283	N = 85*	N = 65	N = 20
	Smaller companies	Larger companies	Larger companies	Smaller companies

* Affected company means when a company had a **change ≥ 5**% in a specific ratio. However, all affected companies are as follows: Δ CR (N = 106), Δ ROE (N = 145) and Δ TL/E (N = 133).

For all of the financial ratios (liquidity, profitability and leverage), Table 4-40 clearly illustrates that the larger medium size companies are more affected, after the transition, than the smaller ones.

Summary of the main findings of the total sample

To conclude, the overall impact, of FRS 102 application, for the total sample (all sub-samples) as in Table 4-37 shows that there are significant decreases in liquidity, profitability and a significant increase in leverage. Also, Table 4-39 shows that there is more volatility in profits under FRS 102 compared to the profits under old UK GAAP. Moreover, Table 4-40 shows that larger medium size companies were more affected than the smaller ones.

4.6   Discussion and Conclusion

It seems that after FRS 102 adoption, there have been more recognition and different ways of measurement. Although the effects have not been clearly observed for the individual sub-samples (other than investment property and intangible assets sub-samples), the overall effect of FRS 102 is significant on almost all of the financial ratios. Therefore, it appears that the effect on financial ratios has not been dominated by a certain treatment for a specific type of transaction, but the effect seems to be caused by a collection of accounting treatments for several types of transactions. However, there have been several companies with changes in Investment Properties whether in terms of revaluation under fair value with the associated deferred tax or in terms of reclassification and the associated reverse of depreciation. Also, there have been several companies with changes in intangibles whether in terms of new recognition of intangibles or reclassification whether from tangible assets or between intangible assets.

Regarding the overall impact of FRS 102 adoption, all the effects on the financial ratios look unwanted and seem to have a negative impact on decision making by the users of financial statements of medium size companies. More specifically, firstly, there have been decreases in liquidity ratios which indicate to the ability to meet short-term financial obligations as well as assist in analysing credit and risk decisions. Secondly, there have also been decreases in profitability ratios which are considered as one of the most important ratios by the main users. Thirdly, there has also been a decrease in interest coverage ratio which is a solvency ratio that considers profitability as well as capital structure. Fourthly, there have been increases in leverage (indebtedness ratios) which indicate to the ability to meet long-term financial obligations. Moreover, there is more volatility in profits after the transition than under old UK GAAP, which is considered as an indication for risk. Furthermore, it appears that company size play an important role in explaining the impact of FRS 102. It is clear that larger medium size companies were more affected than the smaller ones. This is consistent with the previous literature as the larger companies have more complex transactions than the smaller ones.

We have to bear in mind that the sample has not been randomly selected from the entire population of medium-size companies, it has rather been randomly selected from

specific classes of companies depending on the most likely companies that could be affected after the transition to FRS 102. Consequently, the next chapter (difference in differences design) that will be based on the entire population of medium size companies might give different results. Also, as the next chapter use a larger sample basing on the entire population, the results are expected to be more representative and then generalizable for the population of medium size companies.

5 Chapter 5: The effect of FRS 102 in the first-time adoption year

5.1 Introduction

Previous chapter illustrates the effect of FRS 102 on financial ratios using reconciliation statements of the year of transition which 2014. The analysis has been based on data from financial statements for the same year under both old UK GAAP and FRS 102. The sample selection was according to different classes of medium-sized companies that might have the transactions targeted by FRS 102. The analysis (transactions-based) in previous chapter has been based on random sub-samples from selective populations. In this chapter, the same sampling strategy will be conducted but using larger sub-samples using difference-in-differences analysis for the year before and the year after FRS 102 implementation. The second section of the chapter will be based on overall impact, regardless of the transactions, and then analysis according to size and industry. This will be using the data of the year before FRS 102 adoption (2014) and the data of the year after the transition (2015) using difference-in-differences design. Finally, the items-based analysis will be conducted to link between the impact on financial ratios and the reasons behind the impacts.

5.1.1 Background

Before 2015, medium-sized companies in the UK were following the UK GAAP, which is a collection of FRSs, SSAPs and UITF Abstracts. From 1st January 2015 medium-sized companies in the UK are required to apply the FRS 102 which is based on IFRS for SMEs. The FRC states that "FRED 48 is a proportionate solution written specifically for smaller and medium-sized companies whilst maintaining the quality of financial reporting" (ASB, 2012). In 2013, FRC states that "the objective in setting accounting standards is to enable users of accounts to receive high-quality understandable financial reporting proportionate to the size and complexity of the company and users' information needs" (FRC, 2013a).

5.1.2   Issue

New accounting regulation will invariably result in changes in recognition and/or measurement requirements. Consequently, it is, in turn, expected that these changes will impact on the reporting performance. As a result, changes are likely to be seen in accounting figures and then reflected in financial ratios as performance indicators. The importance of this research area stems from how the application of new accounting regulation may have economic consequences and then how stakeholders could be affected. Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances.

5.1.3   The objective of the chapter

The objective of this chapter is to investigate the impact of FRS 102 adoption on financial reporting of medium-sized companies in the UK and whether FRS 102 represents a significant change in the way medium size companies reported. Medium size companies are those companies that meet at least two of three size thresholds for two consecutive years[44], according to the Company Act 2006. Selected financial ratios of medium size companies before and after the transition to FRS 102 have been analysed.

5.1.4   Contribution

This chapter suggests that smaller companies have less liquidity but better performance and less risk. This consequently, might create more tax to pay. As for the larger companies have greater liquidity but poorer performance and more risk. This consequently, might make it more difficult to borrow more money from banks and/or might affect the debt covenants. In terms of industry effect, the findings suggest that the effect of FRS 102 spreads across different industries, and some industries look better than others. Regarding the reasons behind the changes are fair value accounting of

---

[44] Generally, a company qualifies as 'medium-sized' in its first accounting period if it fulfils the conditions (thresholds) in that period. In any subsequent period a company must fulfil the conditions in that period and the period before (Companies House, 2016). According to Company law, the size thresholds for qualification as "medium" are as follows: turnover: £25.9m, balance sheet total: £12.9m and number of employees: 250.

investment property and financial instruments as well as the treatments of amortization, pension liabilities, deferred tax and group loans. Why does it matter? (Accountancy Magazine, 2014, p. 51-53), clarifies how many stakeholders in a company's financial statements view the sorts of changes that will arise from applying FRS 102 for the first time; for banks, "small changes might have critical effects on financial ratios and then on debt covenants". Shareholders "need to understand why reported figures might have changed, and they are likely to be particularly interested in the overall effect as well as the individual details". Other interested parties are Government, employees, suppliers and competitors (see the general conclusion). Furthermore, the findings will be of interest to the member states of EU that might consider following (or not to follow) the UK as a first case that amended and applied IFRS for SMEs which is not permitted, to be adopted as it is, according to the incompatibilities with EU Accounting Directive.

The present study contributes to the relevant literature (Callao et al., 2007; Aisbitt, 2006; Stenka et al., 2008; Gastón et al., 2010; Lantto et al., 2009; Tsalavoutas and Evans, 2010 and Pálka and Svitáková, 2011) in terms of how changes in accounting regulations affect the way in which performance is reported, and how key financial ratios, which might have impacts on contractual obligations, could be affected. This research area is underrepresented in the academic literature for SMEs and more specifically for medium-sized companies. Moreover, there is no previous evidence about the impact of FRS 102 on financial reporting. Also, the findings are inconsistent with the Anglo-Saxon debate which suggests that UK companies are not expected to be affected by international accounting standards as they have similar environment where these standards have been established. Furthermore, the findings of this study give feedback to the regulators especially in the review of the standard as well as being of interest to the main users of financial statements of medium-sized companies regarding the recognizing and understanding the effect of the changes after the transition to FRS 102.

5.1.5 Chapter outline

The following section shows how the hypothesis is developed based on the relevant literature and also depending on the interviews conducted with the practitioners. Then the next section shows the sample selection and data collection as well as data analysis. Accordingly, the chapter outline, in more details, is as follows;

Hypothesis development

Data collection

Data analysis

Model of Companies more likely to have transactions: overall effect

Model of Companies more likely to have transactions (size effect)

The basic DID model: all companies

The size effect model: all companies

The industry effect model: all companies

The industry-Size effect model: all companies

Items-based analysis: overall effect

Items-based analysis: size effect

The results

Companies more likely to have the transactions

Companies more likely to have the transactions: size effect

Summary of the main findings of companies more likely to have transactions

All companies: overall effect

All companies: size effect

All companies: industries effect

All companies: industry-size effect

Summary of the main findings of all companies: overall, size and industry effects

Items-based analysis: overall effect

Items-based analysis: size effect

Summary of the main findings of Items-based analysis: reasons behind the effect

Discussion and conclusion

5.2 Hypothesis development

New accounting regulation will invariably result in changes in recognition and/or measurement requirements. Consequently, it is, in turn, expected that these changes will have impacts on the reporting performance. As a result, changes are likely to be seen in accounting figures and then reflected in financial ratios as performance indicators. The importance of this research area stems from how the application of new accounting regulation may have economic consequences and then how stakeholders could be affected. Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances.

After reviewing the literature, it appears that most the relevant literature is about public companies and there is very little literature about this research area for SMEs and more specifically for medium size companies. This lack of literature could be because of, for instance, not many countries have required, for example, their SMEs to apply IFRS for SMEs or IFRS. In Europe, IFRS for SMEs is not permitted because of incompatibilities with European Union Accounting Directive. Consequently, the UK has issued FRS 102 which is based on IFRS for SMEs with other amendments based on full IFRS and old UK GAAP. To the best of my knowledge, there is no previous study about the effect of FRS 102 adoption on financial reporting of medium-size companies in the UK. Therefore, the present study seeks to identify whether significant differences in financial reporting have arisen following the FRS 102 adoption by medium size companies. Hence, the present study focuses on two research gaps, first, the lack of literature regarding medium-size companies regulation, and second, assessing the impact of the new UK GAAP which is considered as one of the biggest changes in accounting regulation in the UK for a generation.

FRS 102 is the cornerstone of a new financial reporting regime that represents the most significant change to UK GAAP in a generation (ICAEW, 2015a, p. 3). There are areas of key differences between old UK GAAP and FRS 102 such as investment property, financial instruments, intangibles, pension costs, leasing, holiday pay and deferred tax (PwC, 2015). One criticism of FRS 102 is that it is likely to make earnings

more volatile (Accountancy Magazine, 2015a and Accountancy Magazine, 2015b). However, perhaps more critical in the short term is the effect on financial reporting, rather than the focus on the economic consequences (Aisbitt, 2006). A senior manager at PwC says that, after FRS 102 adoption, the calculation of key financial ratios and covenants might be affected (Accountancy Magazine, 2015b). Therefore, there is an urgent need for the main stakeholders as well as policy makers to understand the implications of FRS adoption.

H0: The transition from old UK GAAP to FRS 102 has had no significant effect on financial reporting/ratios of medium size companies in the UK

5.3   Data collection

Data of the year before FRS 102 adoption (2014) and the year after (2015) have been collected from Financial Analysis Made Easy (FAME) database supplied by Bureau Van Dijk.

The two samples (treatment and control) have been selected from FAME data base according to the following search criteria:

1. All active companies (not in receivership nor dormant) and companies with unknown situation
2. Number of Employees: 2015, 2014, for all the selected periods, min=50, max=249.
3. Turnover (th GBP): 2015, 2014, for all the selected periods, min=6,500,000 max=25,900,000.
4. Exclusion companies with IFRS accounts.
5. Country: Prim. trading address, R/O address: England, Northern Ireland, Scotland, Wales.
6. Major sectors: Chemicals, rubber, plastics, non-metallic products, Construction, Education, Health, Food, beverages, tobacco, Gas, Water, Electricity, Hotels & restaurants, Machinery, equipment, furniture, recycling, Metals & metal products, Other services, Post and telecommunications, Primary Sector (agriculture, mining, etc.), Publishing, printing, Textiles, wearing apparel, leather, Transport, Wholesale & retail trade, Wood, cork, paper. Exclusion financial sectors.
7. Accounts for both treatment and control sample are for both years 2014 and 2015.
   Month of last accounts:
     - for treatment sample is December.
     - for control sample are November, October, September, August and July.
8. Exclude subsidiaries: Def. of the UO: min. path of 50.01%, known or unknown shareholder.
9. Exclude charity companies: 63 companies from the treatment sample and 215 from the control sample.
10. The number of observations is as in Table 3-2 as follows;

Table 5-1: number of samples companies and observations

Observations/Samples	Treatment sample	Control sample	Total
Medium size companies according to search criteria in FAME database	3,973	2,457	6,430
Number of observations*	7,946	4,914	**12,860**

* Number of observations = number of companies $\times$ 2 years (2014 and 2015).
Number of missing data depends on the variables in each model.

Treatment and control samples have been selected to use difference in differences design following Ahmed et al., (2013), Florou and Pope (2012), Liu (2010), Daske et al., (2008), Defond et al., (2011) and Landsman et al., (2012). As difference in differences design needs to use both treatment and control samples and FRS 102 adoption is mandatory for all medium-sized companies from 2015, companies with reporting date not on 31 December still publish their annual accounts in 2015 under old UK GAAP. These companies have been used as a control sample following (Daske et al., 2008).

Industrial distribution

Table 5-2 reports the distribution of study sample. There is relatively high concentration of our sample firms in other services, machinery, equipment, furniture, recycling, wholesale & retail trade, and education & health. Overall, the sample firms are representative of all the 16 industries of UK companies.

Table 5-2: Industrial distribution of the numbers of medium-sized companies

Major sector	Total	%
Chemicals, rubber, plastics, non-metallic.	602	4.68
Construction	704	5.47
Education, Health	1,550	12.05
Food, beverages, tobacco	240	1.87
Gas, Water, Electricity	14	0.11
Hotels & restaurants	414	3.22
Machinery, equipment, furniture, recycling.	1,740	13.53
Metals & metal products	548	4.26
Other services	3,960	30.79
Post and telecommunications	120	0.93
Primary Sector (agriculture, mining)	148	1.15
Publishing, printing	326	2.53
Textiles, wearing apparel, leather	116	0.90
Transport	528	4.11
Wholesale & retail trade	1,630	12.67
Wood, cork, paper	220	1.71
Total	**12,860**	100.00

Table 5-3 illustrates the descriptive statistics of the study sample in terms of the financial ratios for both adopting and adopting companies of FRS 102.

Table 5-3: descriptive statistics of the study sample

	FRS 102 ADOPTERS				NON-ADOPTERS (Control sample)				Absolute difference
	Mean				Mean				
	N	2014	2015	Difference (1)	N	2014	2015	Difference (2)	(1) – (2)
CR	3954	2.151	2.226	**0.075**	2455	2.381	2.352	**-0.029**	**|0.104|**
ROE	3567	26.71	20.30	**-6.41**	2322	24.13	21.17	**-2.96**	**|3.45|**
Gearing	3347	97.77	96.85	**-0.92**	2215	73.29	68.33	**-4.96**	**|4.04|**
I Cover	2774	51.83	49.18	**-2.65**	1362	48.79	53.09	**4.3**	**|6.95|**

As can be seen, mean in table 3 shows that there are differences in all the financial ratios between the FRS 102 adopters and the non-adopting companies (the control sample). For example, the change in CR (from 2014 to 2015) for the adopting companies is 0.075 while the change for non-adopters is -0.029. Accordingly, the absolute difference of the changes between FRS 102 adopters and non-adopters is |0.104| for CR. Hence, we can notice the changes in the financial ratios between the adopting and non-adopting companies by comparing the differences in both columns; difference (1) and difference (2), and then the differences between them from the last column; (1) – (2).

5.4 Data analysis

Experimental design

The use of natural experiments to evaluate treatment effects in the absence of truly experimental data has gained wide acceptance in empirical research in economics and other social sciences. Simple comparisons of pre-treatment and post-treatment outcomes for those individuals exposed to a treatment are likely to be contaminated by temporal trends in the outcome variable or by the effect of events, other than the treatment, that

occurred between both periods. However, when only a fraction of the population is exposed to the treatment, an untreated comparison group can be used to identify temporal variation in the outcome that is not due to treatment exposure (Abadie, 2005, p. 1). Li (2010) states that using a control sample helps to isolate the effect of IFRS adoption by differencing out possible confounding factors that change around the adoption (Li, 2010, p. 612).

We use a difference in differences (DID) approach to identify any FRS102 effect on those companies which first reported under the new standard in 2015. These constitute the treatment sample; the companies which reported the results for their accounting year ending in 2015 using the prior regulations constitute the control sample. For both treatment and control samples we include the results for 2014. Any effect of FRS102 is captured in key financial ratios, as documented in prior research. A number of DID models are used, and we outline these next.

((Adding interaction terms to a regression model can greatly expand understanding of the relationships among the variables in the model and allows more hypotheses to be tested (Ye, 2016, p. 23).

5.4.1 Model of Companies likely to have similar transactions: overall effect

The key differences between old UK GAAP and FRS 102 are related to different types of transactions such as revaluation of investment property under fair value through P&L, recognizing derivatives, recognizing holiday pay accruals when occur, pension costs and borrowing cost policy choices and deferred tax. It seems to be that such mentioned transactions are not limited to specific sectors, they rather operations that can be in any companies regardless of the type of industry. However, there are some certain groups of companies that are more likely to be affected, after FRS 102 adoption, than others. Of those companies, for example, companies with investment property activities, companies with revaluation reserves, companies with overseas turnover, companies with more intangible assets and group companies. Therefore, transactions-based analysis is based on the most likely companies to be affected, after the transition to FRS 102, in other words, where the impact is expected to be.

The fixed effect basic model of difference in differences design is as follows;

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST \qquad (1)$$

where:

R = the ratio for each company, observations for 2014 and 2015, and companies which implemented FRS102 in 2015 (the adopters) and those which did not (the control sample)

ADOPT = 1 if the observation is part of the treatment sample (using FRS 102 in 2015), 0 otherwise

POST = 1 if the observation is in 2015, 0 otherwise

The components of the equation are as follows:

R = a + β 1.ADOPT + a1.POST   (1-1)

a1= β 2 + β 3.ADOPT   (1-2)

Equation (1-1) specifies that the average ratio in 2014 for all companies is captured by the coefficient a. The incremental value of the ratio in 2014 for those companies which will adopt FRS102 in 2015 is captured by the coefficient β1. The value of a company's ratio in 2015 is captured by the coefficient a1 which is specified by equation 1-2. The coefficient has two elements: one that is the same for all companies (β2), which captures the economy and industry wide effects; and an extra element (β3) if the company adopts FRS102.

Transactions-based analysis is based on the most likely companies to be affected. This is due to the interviews conducted with practitioners as well as the technical literature from regulators, professional bodies and practitioners.

The Model of Companies more likely to have transactions targeted by FRS 102 is as follows;

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST.Transaction$$

The variable Transaction i is a dummy variable, and takes a value of 1 if the company has a transaction in category i, and 0 otherwise.

5.4.2 Model of Companies likely to have similar transactions (size effect)

$$Ratio = a + \beta1.ADOPT + \beta2.POST + \beta3.ADOPT.POST.SMALLER.Transaction + \beta4.ADOPT.POST.LARGER.Transaction$$

SMALLER= 1 if the company size is below the median of the sample, 0 otherwise

LARGER   = 1 if the company size is above the median of the sample, 0 otherwise

In this model, there is still a fixed effect for FRS102, but it varies according to whether the company, with a specific transaction, is above or below the median size of the sample.

5.4.3 The basic DID model: all companies

The previous level of analysis 'Transaction-based analysis' focused on certain groups of medium size companies and then it is less representative for medium-sized companies population. The following level of analysis focuses on the overall impact that assumes that the effect of FRS102 is the same for all adopting companies. The fixed effect basic model of difference in differences design is as follows;

$$R = a + b1.ADOPT + b2.POST + b3_i.ADOPT.POST$$

A potential weakness of this model is that it assumes that the effect of FRS102 is the same for all adopting companies. This assumption may not be valid for companies responding to FRS102. Consequently, we extend the basic regression model to capture size differences between companies. Adding interaction terms to a regression model can greatly expand understanding of the relationships among the variables in the model and allows more hypotheses to be tested (Ye, 2016, p. 23).

5.4.4 The size effect model: all companies

R = a + b1.ADOPT + b2.POST + b3.ADOPT.POST.SMALLER + b4.ADOPT.POST.LARGER

where:

SMALLER= 1 if the company size is below the median of the sample, 0 otherwise

LARGER   = 1 if the company size is above the median of the sample, 0 otherwise

In this model, there is still a fixed effect for FRS102, but it varies according to whether the company is above or below the median size of the sample.

5.4.5 The industry effect model: all companies

$$R = a + b1.ADOPT + b2.POST + b3_i.ADOPT.POST.\sum_i Industry_i$$

5.4.6 The industry-Size effect model: all companies

$$R = a + b1.ADOPT + b2.POST + b3_i.ADOPT.POST.SMALL.\sum_i Industry_i + b4_i.ADOPT.POST.LARGE.\sum_i Industry_i$$

where:

SMALLER= 1 if the company size is below the median of the sample, 0 otherwise

LARGER   = 1 if the company size is above the median of the sample, 0 otherwise

Industry$_i$ = 1 if the company belongs to industry i, 0 otherwise

In this model, there is still a fixed effect for FRS102, but it varies according to whether the company is above or below the median size of the sample and the industry in which the company is located.

Items-based analysis (Reasons behind the effect)

As can be seen, the financial ratios have changed, after FRS 102 adoption, and the company size seemed to play an important role in describing the effect variations. However, it is still not known what the reasons behind the changes in the tested financial

ratios, i.e., which sections of FRS 102 have caused the changes to accounting numbers and then on financial ratios.

The purpose of this level of analysis is to examine the relationships between specific financial statements items with the tested financial ratios. This is to connect the changes in the financial ratios with the relevant sections of FRS 102 responsible for these changes.

5.4.7 Items-based analysis: overall effect

The following model examines the overall relationships between the financial ratios and the financial statements items in case of there any is changes in the tested financial ratios.

$$Ratio = a + \beta1.ADOPT + \beta2.POST + \beta3_i.ADOPT.POST.\sum_i Item_i$$

The variable item i is a value of an item of financial statements which is highly thought to be the reasons behind the change in a certain financial ratio.

5.4.8 Items-based analysis: size effect

As the effect on financial ratios varies according to company size, the following model examines relationships between the financial ratios and the financial statements items according to company size. This analysis shows the effect variations between smaller and larger medium-sized companies;

$$R = a + b1.ADOPT + b2.POST$$
$$+ b3_i.ADOPT.POST.SMALLER.\sum_i Item_i$$
$$+ b4_i.ADOPT.POST.LARGER.\sum_i Item_i$$

The variable item i is a value of an item of financial statements which is highly thought to be the reasons behind the change in a certain financial ratio.

5.5   The results

5.5.1   Companies likely to have similar transactions: overall effect

This analysis is according to most likely companies that might be affected. In other words, sub-samples selected are highly expected to have the relevant transactions targeted by FRS 102. In this section, we attempt to group companies according to the similarity of their transactions in order to more accurately identify the effects of FRS102. This level of analysis firstly will be conducted regardless of company size and secondly will be conducted according to the size. Tables numbered from (table 1.1.1 to table 1.10.4 in Appendix 2) present analysis related to different groups of companies with different types of the transactions targeted by FRS 102. Afterwards, Table 5-13 will summarize all of these individual tables (table 1.1.1 to table 1.10.4 in Appendix 2). Only the coefficient β3 of interaction term (β3*Adopt*Post*transaction) that captures the extra change in the ratio between 2014 and 2015 because the company is implementing FRS102 will be presented here, in the text, and the entire tables be in Appendix 2.

5.5.1.1   Investment property sub-sample (fair value impact)

Investment properties were included in the balance sheet at open market value under old UK GAAP. The revaluation differences are included in revaluation reserves and the cost model is not permitted. Under FRS 102, Investment property is carried at fair value through profit or loss if this fair value can be measured without undue cost or effort, otherwise, it is carried at cost within Property, plant and equipment (Pwc, 2015).

After conducting interviews with highly experienced practitioners, they state that Investment property under FRS 102 is a big concern by most of medium-sized companies regardless of the type of the sector. Also, fair value accounting for investment properties is expected to have some impacts such as more volatility for profits as well as the deferred tax, which is considered as a major issue, as a result of the revaluation. Hence, investment property accounting under FRS 102 is expected to affect any company that has investment properties. The focus on the model is on coefficient β3 of interaction term (β3*Adopt*Post*Companies with Investment properties). This coefficient captures the extra change in the ratio between 2014 and 2015 because the

company is implementing FRS102. Therefore, the following three sub-samples might be the places where the effect is expected to be:

a) Companies with Investment property

This sample is according to Trade Description in FAME data base. It represents medium size companies with Investment property activity.

H0: The change in investment property accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium size companies with Investment property activity.

$$Ratio = \alpha + \beta1\ ADOPT + \beta2\ POST + \beta3\ ADOPT*POST*Companies\ with\ IPs + Controls$$

Table 5-4 gives the statistics of a transaction-based analysis related to investment property companies. This sub-sample was identified according to Trade Description in FAME data base. It represents medium size companies with Investment property activity, among others.

Table 5-4 Overall effect of FRS 102 on companies with Investment property activity

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	.229	.59	2.45	.50	18	.54	-4.19	.87

Source: Table 1.1.1, table 1.1.2, table 1.1.3 and table 1.1.4 in Appendix 2.

Table 5-4 unexpectedly, shows that there is no significant effect on financial ratios as all P-values related to difference-in-differences coefficient (β3) are much larger than 5%. The result is against what was expected as investment property accounting under FRS 102 might affect profitability and then the ratios based on profitability.

b) Real estate companies

This sub-sample is according to Code: 681 & 682 in FAME data base. These are companies that manage their own properties (not on behalf of others). Muller et al., (2011) use real estate companies to examine the effects of mandating the provision of fair value information for long-lived tangible assets of real estate firms.

H0: The change in investment property accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of Real Estate medium-sized companies.

$$\text{Ratio} = \alpha + \beta1 \text{ ADOPT} + \beta2 \text{ POST} + \beta3 \text{ ADOPT*POST*Real Estate Companies} + \text{Controls}$$

Table 5-5 shows the statistics of a transaction-based analysis related to real estate companies. This sub-sample was identified according to companies manage their own properties.

Table 5-5 Overall effect of FRS 102 on Real Estate companies

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	.027	.92	2.23	.52	21.1	.48	-19.9	.11

Source: Table 1.2.1, table 1.2.2, table 1.2.3 and table 1.2.4 in Appendix 2.

Table 5-5 unexpectedly, shows overall that there is no significant effect on financial ratios of real estate companies. …

c) Companies with revaluation reserves

This sub-sample includes any company with revaluation reserves and then it might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this might broadly reflect the impact of revaluation under fair value and therefore the impact is not limited to the change in investment property treatment.

H0: The change in investment property and/or Fair value accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium-sized companies with revaluation reserves.

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*Companies with revaluation reserves + Controls

Table 5-6 presents the statistics of a transaction-based analysis related to company with revaluation reserves.

Table 5-6 Overall effect of FRS 102 on companies with revaluation reserves

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	**-.569**	**.00***	**-9.78**	**.00***	**-16.38**	**.00***	**-19.83**	**.00***

Source: Table 1.3.1, table 1.3.2, table 1.3.3 and table 1.3.4 in Appendix 2.

Table 5-6 reveals that companies with revaluation reserves have had highly significant reduction in all ratios; Current ratio, Return on Equity, Gearing and Interest Cover. Companies with revaluation reserves were expected to be affected by fair value accounting, and the revaluations taken through P&L, of investment properties as well as non-basic financial instruments.

5.5.1.2   Companies with overseas turnover (financial instruments)

Initial and subsequent measurement for non-basic financial instruments now will be at fair value, and it will come to balance sheet through P&L. Many of these instruments would not have been recognised on the balance sheet under old UK GAAP but simply disclosed. Financial instruments under fair value may have a significant effect for a wide range of companies, applying FRS 102, regardless of the type of sector as has been said by respondent (2):

You talk about international trade and the need for foreign exchange. Again, you see that it's not sector dependent at all. I mean it's virtually everybody does. Loads and loads of companies do some foreign exchange and that is causing people trouble, they have certainly got fair valued instrument on their balance sheet that they didn't have before is quite a big big change.

The focus on the model is on coefficient β3 of interaction term (β3*Adopt*Post*overseas Turnover). This coefficient captures the extra change in the ratio between 2014 and 2015 because the company is implementing FRS102.

H0: The change in financial instruments accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of liquidity, profitability, leverage and interest cover of medium size companies.

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*Companies with Overseas Turnover + Controls

Table 5-7 shows the statistics of a transaction-based analysis related to financial instruments. This sub-sample was identified according to companies with overseas turnover as such companies are expected to have non-basic financial instruments such as foreign exchange forward contracts.

Table 5-7 Overall effect of FRS 102 on companies with overseas turnover

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	**.260**	**.00*** **	**-4.44**	**.01** **	**-8.89**	**.04** **	.812	.86

Source: Table 1.4.1, table 1.4.2, table 1.4.3 and table 1.4.4 in Appendix 2.

Table 5-7 illustrates that companies with overseas turnover have a significant increase in Current Ratio and reductions in both Return on Equity and Gearing. The effect on Current Ratio might be as a result of new recognition of financial instrument as current assets, while decrease in Return on Equity could be caused by the revaluation under fair value through P&L.

5.5.1.3   Companies with Acquisition & disposal (Intangible recognition & Amortization)

The FRS 102 criteria for recognition of the identifiable assets and liabilities of an acquiree differ from current UK GAAP, where such assets and liabilities have to be capable of being disposed of or settled separately. There will be no equivalent 'separation' requirement in FRS 102, meaning more intangible assets are likely to be identified separately from goodwill (Grant Thornton, 2013, p. 1). This change may affect some medium size companies especially those with regular business combinations. This issue has been illustrated by interviewees (1) and (1). The focus on the model is on coefficient β3 which captures the extra change in the ratio between 2014 and 2015 because the company is implementing FRS102.

H0: The change in Intangibles accounting from old UK GAAP to FRS 102 has had no significant impact on financial ratios of profitability, leverage and interest cover of medium size companies.

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*Companies with Acquisition & disposal + Controls

Table 5-8 shows the statistics of a transaction-based analysis related to intangible assets; recognition and amortization. This sub-sample was identified according to companies with acquisition and disposal.

Table 5-8 Overall effect of FRS 102 on companies with Acquisition & disposal

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	-5.91e-07	.24	9.30e-06	.38	-.00002	.41	8.42e-06	.64

Source: Table 1.5.1, table 1.5.2, table 1.5.3 and table 1.5.4 in Appendix 2.

Table 5-8 reveals that companies with acquisition and disposal (as a proxy for recognition and amortization of intangibles) had no significant impact on the tested financial ratios.

5.5.1.4   Companies with intangibles (amortization)

Regarding the useful economic lives for intangible assets and goodwill, old UK GAAP presumes a maximum useful life of 20 years, but this can be rebutted if a longer or indefinite life can be justified. Under FRS 102, intangible assets and goodwill always have a finite life. If no reliable estimate can be made, the useful life will be limited to a maximum of 10 years (Grant Thornton, 2013, p. 2). FRS 102 requires that intangibles (including goodwill) are amortised over their useful life but to be able to justify where the life is more than ten years. On transition this could lead to some large amounts being written off goodwill. This can affect P&L by increasing yearly amortised expenses. Although it seems to be some significant differences after the transition to FRS 102, Interviewee 1 illustrates that there is no that much impact because of the following reasons:

No many intangible assets with indefinite life previously. … the clients just justify the lives that they had.

Therefore, the transition from old UK GAAP to FRS 102 is not expected to have a significant impact on financial reporting.

H0: The change in Intangibles (amortization) accounting from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability, leverage and interest cover of medium size companies.

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*Intangibles + Controls

The focus on the model is on coefficient β3 which captures the extra change in the ratio between 2014 and 2015 because the company is implementing FRS102.

Table 5-9 shows the statistics of a transaction-based analysis related to 'amortization' after the transition. For this sub-sample, the real value of intangible assets is used to examine the effect of amortization accounting after FRS 102 adoption.

Table 5-9 Overall effect of FRS 102 on companies with intangibles (amortization)

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	1.78e-07	.42	**-.00001**	**.000**	-3.54e-08	.99	**-.00001**	**.000**

Source: Table 1.6.1, table 1.6.2, table 1.6.3 and table 1.6.4 in Appendix 2.

Table 5-9 displays, as expected, that companies with intangibles have highly significant decrease in both return on equity and Interest Cover.

5.5.1.5 Construction companies (borrowing costs/ capitalization choice)

FRS 102 includes accounting options for capitalisation of borrowing costs. Unlike old UK GAAP that requires capitalisation of borrowing costs, under FRS 102 it is a policy choice and the capitalisation choice shall be applied consistently to a class of qualifying assets or all borrowing costs shall be recognised as an expense in P&L during the period. Interviewee 1 states that big construction companies may be affected by borrowing costs choices.

H0: The change in borrowing costs policy choices from old UK GAAP to FRS 102 has had no significant impact on the financial ratios of profitability and interest cover of medium size companies.

$$\text{Ratio} = \alpha + \beta1 \text{ ADOPT} + \beta2 \text{ POST} + \beta3 \text{ ADOPT*POST*Construction Companies} + \text{Controls}$$

The focus on the model is on coefficient β3 which captures the extra change in the ratio between 2014 and 2015 because the construction companies are implementing FRS102.

Table 5-10 gives the statistics of a transaction-based analysis related to capitalization choices of borrowing costs. This sub-sample consists of construction companies which are the most to be affected.

Table 5-10 Overall effect of FRS 102 on Construction companies

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	-.596	.000	1.01	.76	-20.7	.05	-8.47	.51

Source: Table 1.7.1, table 1.7.2, table 1.7.3 and table 1.7.4 in Appendix 2.

Table 5-10 shows that Return on Equity of construction companies has not been changed after the transition. This is against what was expected as some companies might choose the treatment of borrowing costs as expense rather than to be capitalized.

5.5.1.6 Group companies (Pension cost/scheme & Intra group loans)

Group companies are expected, after FRS 102 implementation, to be affected by both treatments; pension and intra group loans accounting.

Under old UK GAAP a loan with a below market rate of interest was measured at the amount receivable/payable, FRS 102 requires that such a loan is measured initially at the present value of the future cash flows discounted at a market rate. Any difference arising on initial measurement is subsequently allocated over the term of the loan using the effective interest method (FRC, 2015a, p. 14). For some groups, the impact could be significant if loans are not made on market terms and could result in different values being recognised in each company within the group (Grant Thornton, 2014, p. 4).

Multi-employer schemes where an employer is unable to identify its share of the assets and liabilities of a multi-employer defined benefit pension scheme, the scheme will continue to be accounted for a defined contribution under FRS 102, as is permitted by current UK GAAP. However, where a funding agreement is in place to fund a deficit on such a scheme, FRS 102 requires the recognition of a liability in relation to the payments due under that agreement (Grant Thornton, 2013, p. 2). FRS 102 does not

permit the pension liability or asset to only be recognised in the consolidated financial statements, as permitted by FRS 17. Under FRS 102 at least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves (FRC a, SEN 10, p. 3).

The focus on the model is on coefficient β3 of interaction term (β3*FRS 102*Post*group companies). This coefficient captures the extra change in the ratio between 2014 and 2015 because the group companies are implementing FRS102.

H0: The change in Pension and Intra group loans accounting from old UK GAAP to FRS 102 has had no significant impact on financial ratios of profitability, leverage and interest cover of medium size group companies.

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*Group companies + Controls

Table 5-11 presents the statistics of a transaction-based analysis related to group companies which are expected to be affected by the treatment of pension and intra group loans accounting after FRS 102 adoption.

Table 5-11 Overall effect of FRS 102 on Group companies

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	**.187**	**.045**	-2.27	.23	**10.66**	**.023**	-4.60	.38

Source: Table 1.8.1, table 1.8.2, table 1.8.3 and table 1.8.4 in Appendix 2.

Table 5-11 illustrates that group companies have a highly significant increase current ratio, which is expected due to treating intra group loans as on demand and then classified as current liabilities. Regarding Gearing, there is a significant increase in Gearing which is expected as a result of increases in pension liabilities.

5.5.1.7   Companies with R&D (capitalization choice)

FRS 102 includes accounting options for capitalisation of development costs. Where an company adopts a policy of capitalisation expenditure in the development phase, that policy shall be applied consistently to all expenditure that meets certain requirements. Expenditure that does not meet certain requirements is expensed as incurred. Development costs may affect Hi-Tech companies. However, the expected impact is low as stated by interviewees (1) and (2).

H0: The change in development costs policy choices from old UK GAAP to FRS 102 has had no significant impact on financial ratios of profitability and interest cover of medium size companies.

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*R&D + Controls

The focus on the model is on coefficient β3 which captures the extra change in the ratio between 2014 and 2015 because companies with Research & Development (R&D) are implementing FRS102. Table 5-12 gives the statistics of a transaction-based analysis related to companies with R&D that examine whether the capitalization choices of R&D have effects on the financial ratios.

Table 5-12 Overall effect of FRS 102 on companies with R&D (capitalization choice)

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
β3	7.81e-08	.53	-4.42e-07	.80	8.44e-06	.57	-5.62e-06	.42

Source: Table 1.9.1, table 1.9.2, table 1.9.3 and table 1.9.4 in Appendix 2.

Table 5-12 shows that companies with R&D have had no effect on the tested financial ratios after FRS 102 adoption.

5.5.1.8   Companies with operating lease rentals

Under FRS 102, 90% test is no longer exist and as a result it is likely to see a different classification of some leases than was before (under old UK GAAP). And then

more judgement may be required to distinguish between the finance and operating lease. The impact on the financial position of a lessee in classifying a lease as a financial lease is mainly derived by the liability recognised at the commencement of the lease term. Also, lease incentives under FRS 102 are spread over the lease term rather than over the shorter period to the first rent review. And this means that the benefits to the lessee or the costs to the lessor may be amortised over a significantly longer period.

However, the FRC illustrates that both standards (SSAP 21 and FRS 102) aim to identify those situations where substantially all the risks and rewards of ownership of an asset are held by a lessee but use different specific tests or indicators. Therefore, there are unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC, 2013c, p. 4). In this regard, the Interviewee 1 states that:

> No significant change overall. … the impact is slightly different, no significant reclassification. … Having impact assessment, none of clients came back to reclassify. … most clients apply transition exemptions regarding lease incentive.

H0: The change in lease accounting from old UK GAAP to FRS 102 has had no significant impact on financial ratios of liquidity, profitability, leverage and interest cover of medium size companies.

$$\text{Ratio} = \alpha + \beta 1 \text{ ADOPT} + \beta 2 \text{ POST} + \beta 3 \text{ ADOPT*POST*Operating lease rentals} + \text{Controls}$$

The focus in the model is on coefficient $\beta 3$ which captures the extra change in the ratio between 2014 and 2015 because the leasing companies are implementing FRS102.

Table 5-13 presents the statistics of a transaction-based analysis related lease treatment. This sub-sample consists of companies with operating lease rentals to examine whether there is reclassification between operating and finance lease.

Overall effect of FRS 102 on companies with operating lease rentals

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
β3	-6.91e-08	.25	-2.28e-06	.21	.00001	.11	**-1.56e-07**	**.00**

Source: Table 1.10.1, table 1.10.2, table 1.10.3 and table 1.10.4 in Appendix 2.

Table 5-13 reveals that the only ratio that has significant impact is Interest Cover. However, it seems that this change has been caused by other transaction as there has been no change in the Gearing ratio. Moreover, untabulated analysis shows that there is no relationship between operating lease rentals and finance lease. Accordingly, there is no significant reclassification between operating and finance lease.

5.5.1.9 Companies expected to have significant impact in terms of holiday pay accounting

Universities/higher education sector are highly expected to have an impact after FRS 102 adoption, however, there are no enough observations (Treatment sample is 7 and control sample is 41 companies) for the expected companies to be affected (higher education), as well as the reporting dates of treatment sample are only on 31/12. Also, most of educational companies are charities which have, to some extent, different financial statements. However, holiday pay accruals might have an impact on any companies due to the number of employees, the size of their holiday entitlement and the timing of the entity's year end in relation to the holiday.

Summary of the overall effects for companies likely to have similar transactions

Table 5-13 summarizes the overall effects of the transactions-based analysis and presents how different groups of companies have been affected. The focus in the model is on coefficient β3 of interaction term (β3*FRS 102*Post*Transaction). This coefficient captures the extra change in the ratio between 2014 and 2015 because the companies with a specific transaction are implementing FRS102.

Table 5-13 Summary of analysis based on companies likely to have similar transactions: Overall effect

$$Ratio = a + \beta1.ADOPT + \beta2.POST + \beta3.ADOPT.POST.TRANSACTION$$

Relevant Company. Companies most likely to have similar impacting transactions	β3 P-value	Impact on financial ratios			
		CR	ROE	Gearing	I Cover
1. **Companies with investment property activity:**	Coefficient	0.229	2.45	18	-4.19
Measurement: dummy variable Definition: The trade description. Related transaction(s): Investment property, deferred tax	P-value	0.59	0.50	0.54	0.88
2. **Real estate companies:** Measurement: dummy variable Definition: Code: 681 & 682 in FAME	Coefficient	0.027	2.23	21.12	-19.99
Related transaction(s): Investment property, deferred tax	P-value	0.920	0.52	0.483	0.116
3. **Companies with revaluation reserves (RR):**	Coefficient	**-0.56**	**-9.78**	**-16.38**	**-19.83**
Measurement: dummy variable Related transaction(s): Investment property, deferred tax - fair value	P-value	**0.00*****	**0.00*****	**0.00*****	**0.00*****
4. **Companies with overseas turnover:**	*Coefficient*	**.26**	**-4.44**	**-8.89**	.812
Measurement: dummy variable Related transaction(s): Financial instruments	*P-value*	**0.00*****	**0.01****	**0.04****	.86
5. **Companies with Acquisition & disposal (A&D):**	Coefficient	-5.91e-07	.000009	-.00002	8.42e-06
Measurement: dummy variable Related transaction(s): Intangible recognition, amortisation	P-value	.24	.38	.41	.64
6. **Companies with intangibles:** Measurement: value of intangibles	Coefficient	1.78e-07	**-.00001**	-3.54e-08	**-.00001**
Related transaction(s): Amortisation	P-value	0.42	**0.00*****	0.99	**0.00*****
7. **Construction companies:** Measurement: dummy variable	Coefficient	**-.596**	1.01	-20.7 [2]	-8.47
Related transaction(s): borrowing costs	P-value	**0.00 *****	0.76	0.05	0.510
8. **Groups:** Measurement: dummy variable (more than 5 members in the group)	Coefficient	**.187**	-2.27	**10.66**	-4.60
Related transaction(s): Pension costs, intra group loans	P-value	**0.04 ****	0.23	**0.02 ****	0.38

Relevant Company. Companies most likely to have similar impacting transactions	β3 P-value	Impact on financial ratios			
		CR	ROE	Gearing	I Cover
9. Companies with development costs: Measurement: Value of R&D Related transaction(s): Development costs	Coefficient	7.81e-08	-4.42e-07	8.44e-06	-5.62e-06
	P-value	0.53	0.80	0.57	0.42
10. Companies with operating Lease rentals: [3] Measurement Real values of operating lease rentals Related transaction: Leasing	Coefficient	-6.91e-08	-2.28e-06	.00001	**-1.56e-07**
	P-value	0.25	0.21	0.11	**0.00** *******
11. Holiday pay		**No enough observations**			

The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

The focus in the model is on coefficient β3 of interaction term (β3*Adopt*Post*Transaction). This coefficient captures the extra change in the ratio between 2014 and 2015 because the companies with a specific transaction are implementing FRS102.

Table 5-13 shows, unexpectedly, that for both the sub-sample of companies with investment property activity as well as the sub-sample of real estate companies, there were no significant effects on financial ratios after FRS 102 adoption. As for the sub-sample of Companies with revaluation reserves, there were highly significant reductions for all of test financial ratios (CR, ROE, Gearing and Interest Cover). However, this sample includes any company with revaluation reserves and then it might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this sub-sample might broadly reflect the impact of revaluation under fair value and therefore the impact is not limited to the change in investment property treatment. Regarding the sub-sample of Companies with overseas turnover, which expected to have impacts due to the treatment of financial instruments, there were significant increase in CR, and significant decreases in both ROE and Gearing. In respect of the sub-sample of Companies with intangibles, which is expected to be affected due to the treatment of amortization, there were highly significant decreases in ROE and I Cover. Such impact can as a result of more amortization which is due to either amortizing intangibles during shorter periods of time (shorter useful lives). Another sub-sample is Construction companies, which is expected to be affected because of capitalization choices of borrowing costs. Although there were significant reductions for both CR and Gearing, there was no significant impact on ROE which indicates that capitalization choices of borrowing costs were not responsible for the change. For the sub-sample of group companies, which was expected to have an impact due to accounting treatments of pension costs as well as intra group loans, overall, there were highly significant increase in CR and significant increase in Gearing. Increase in Gearing could be as a result of the increase in long term liabilities related to pension provisions. Also, recognizing intra group loans under fair value at the transition might lead to a reduction in distributable reserves (Accountancy Magazine, 2015b, p. 63).

Regarding the sub-sample of companies with R&D which test the impact of capitalization choices of Development costs, there was no significant effect for any of tested financial ratios. Then, for the sub-sample of companies with operating lease rentals which examine the impact of lease accounting after the transition, the only ratio that had significant impact is I Cover. However, unreported analysis (using both

regression and correlation) reveals that there is no relationship between (Paid on Leasing) and (Total Operating Lease Rentals). This indicates that there has been no reclassification between the Operating and Finance lease. Finally, although holiday pay accruals expected to have impacts for some medium-sized companies and the most expected ones are university/higher education industry. However, there are no enough observations for this population to be tested.

Key findings of the Overall effect on companies likely to have similar transactions

1. Companies with revaluation reserves which reflect the fair value accounting including investment property, had declines in all of Return on Equity, Gearing and Interest Cover.

2. Companies with overseas turnover which represent the impact caused by financial instruments accounting, especially foreign exchange forward contracts, under fair value. These companies had an increase in Current Ratio and reductions in both Return on Equity and Gearing.

3. Companies with intangible assets which reflect amortization accounting of different types of intangibles (shorter useful lives and may be some writing off). These companies had decreases in both Return on Equity and Interest Cover.

4. Group companies which were expected to reflect both intra group loans and pension accounting. These companies had increases in Current Ratio (expected to be linked to treatment of group loans) and Gearing (expected to be caused by increases in pension liabilities).

As it is expected to be some variations in the effect in different directions that might, on average, offset each other, the same analysis will be conducted after considering company size, as follows.

5.5.2 Companies likely to have similar transactions: size effect

Gaston et al., (2010) state that transactions of small companies are less complicated and perhaps less affected by the transition; and on the other hand, the largest companies might have more complicated transactions but those companies that have been applying accounting policies closer to IFRS before IFRS adoption found not affected (Gaston et al., 2010, p. 310). Therefore, in the case of medium-sized companies in the UK, they have been applying old UK GAAP and then there are several key differences between the old UK GAAP and FRS 102. Accordingly, it is expected for larger medium-sized companies to be affected, after the transition, as they are expected to have more complicated transactions and at the same time they have been applying old UK GAAP, and only a very small number[45] of medium size companies have been applying IFRS. The following hypothesis has been developed to examine whether the impact of FRS 102 varies across different sizes of medium size companies using quartiles following (Gaston et al., 2010). Also, as there are some areas of FRS 102 that whose impacts might depend on company size, analysis based on company size will be conducted. Of those areas, according to the interviews conducted with practitioners, are non-basic financial instruments, deferred tax, holiday pay accruals, pension accounting, borrowing costs and amortization.

This analysis is according to most likely companies that might be affected. In other words, sub-samples selected are highly expected to have the relevant transactions targeted by FRS 102. The overall analysis (regardless of company size) has been conducted in the previous section, and now will be conducted according to company size. Tables numbered from (table 2.1.1 to table 2.9.4 in Appendix 2) present the effect of FRS 102 on companies likely to have similar transactions according to company size (smaller vs. larger medium-sized companies). Afterwards, Table 5-23 will summarize all of these individual tables (table 2.1.1 to table 2.9.4 in Appendix 2).

The focus in the model is on the coefficients β3 and β4 of interaction terms (β3*Adopt*Post*smaller*transaction) that captures the extra change in the ratio between 2014 and 2015 because the smaller company is implementing FRS102, and

---

[45] Less than 3% according to FAME database.

(β4*Adopt*Post*larger*transaction) that captures the extra change in the ratio between 2014 and 2015 because the larger company is implementing FRS102 will be presented here, in the text, and the entire tables be in Appendix 2.

5.5.2.1 Investment property sub-sample (fair value impact)

Investment properties were included in the balance sheet at open market value under old UK GAAP. The revaluation differences are included in revaluation reserves and the cost model is not permitted. Under FRS 102, Investment property is carried at fair value through profit or loss if this fair value can be measured without undue cost or effort, otherwise, it is carried at cost within Property, plant and equipment (Pwc, 2015).

After conducting interviews with highly experienced practitioners, they state that Investment property under FRS 102 is a big concern by most of medium-sized companies regardless of the type of the sector. Also, fair value accounting for investment properties is expected to have some impacts such as more volatility for profits as well as the deferred tax, which is considered as a major issue, as a result of the revaluation. Hence, investment property accounting under FRS 102 is expected to affect any company that has investment properties. Therefore, the following three sub-samples might be the places where the effect is expected to be:

A) Companies with Investment property

This sample is according to Trade Description in FAME data base. It represents medium size companies with Investment property activity.

H0: The impact of the change in investment property accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies regarding the financial ratios of profitability, leverage and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*Companies with Investment property activity + β4 ADOPT*POST*LARGER*Companies with Investment property activity + Controls

Table 5-14 gives the statistics of a transaction-based analysis related to investment property companies by company size. This sub-sample was identified according to Trade Description in FAME data base. It represents companies with Investment property activity, among others, divided into smaller and larger medium size companies.

Table 5-14 Effect of FRS 102 on smaller vs. larger companies with Investment property activity

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
Smaller companies β3	-.171	0.75	**13.72**	**0.01****	**-42.98**	**0.00*****	85.69	0.40
Larger companies β4	.681	0.22	**-6.688**	**0.03****	58.09	0.182	**-33.06**	**0.02****

Source: Table 2.1.1, table 2.1.2, table 2.1.3 and table 2.1.4 in Appendix 2.

Table 5-14, shows that smaller medium size companies have an increase in return on equity and a decline in gearing. This was expected due to revaluation of investment properties under fair value through P&L, and for gearing the reduction might because of the increase in equity after the revaluation. As for larger medium size companies, there are decreases in both return on equity and interest cover, which might because of negative/downwards revaluations.

B) Real estate companies

This sub-sample is according to Code: 681 & 682 in FAME data base. These are companies that manage their own properties (not on behalf of others). Muller et al., (2011) use real estate companies to examine the effects of mandating the provision of fair value information for long-lived tangible assets of real estate firms.

H0: The impact of the change in investment property accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized real estate companies regarding the financial ratios of profitability, leverage and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*Real Estate Companies + β4 ADOPT*POST*LARGER*Real Estate Companies + Controls

Table 5-15 shows the statistics of a transaction-based analysis related to real estate companies. This sub-sample was identified according to companies manage their own properties.

Table 5-15 Effect of FRS 102 on smaller vs. larger Real Estate companies

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Smaller companies β3	-.742	0.00***	4.92	0.44	-45.89	0.04**	-40.99	0.00***
Larger companies β4	.362	0.28	-.413	0.92	47.03	0.24	-12.93	0.44

Source: Table 2.2.1, table 2.2.2, table 2.2.3 and table 2.2.4 in Appendix 2.

Table 5-15 shows, unexpectedly, that the larger companies have no effects at all for any of the tested financial ratios. Moreover, even for the smaller companies, there was no change in return on equity. This could be according to what has been mentioned by (Accountancy Magazine, 2015a, p. 61) that 'groups that focus entirely on real estate are likely to have examined their options in great detail already'. Accordingly, options taken

by such groups of companies might mitigated the impact, if any. However, the smaller real estate companies have significant decrease in both Gearing and Interest Cover, which is hard to explain.

C) Companies with revaluation reserves

This sub-sample includes any company with revaluation reserves and then it might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this might broadly reflect the impact of revaluation under fair value and therefore the impact is not limited to the change in investment property treatment.

H0: The impact of the change in investment property and/or Fair value accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies with revaluation reserves regarding the financial ratios of profitability, leverage and interest cover

$$\text{Ratio} = \alpha + \beta 1\ \text{ADOPT} + \beta 2\ \text{POST} + \beta 3\ \text{ADOPT*POST*SMALLER*Companies with revaluation reserves} + \beta 4\ \text{ADOPT*POST*LARGER*Companies with revaluation reserves} + \text{Controls}$$

Table 5-16 presents the statistics of a transaction-based analysis related to company with revaluation reserves according to size.

Table 5-16 Effect of FRS 102 on smaller vs. larger companies with revaluation reserves

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
Smaller companies β3	**-.769**	**0.00***	**-7.85**	**0.08**	**-23.97**	**0.00***	**-16.97**	**0.01**
Larger companies β4	**-.414**	**0.00***	**-10.92**	**0.00***	-11.05	0.15	**-22.27**	**0.00***

Source: Table 2.3.1.B, table 2.3.2.B, table 2.3.3.B and table 2.3.4.B in Appendix 2.

Table 5-16 reveals that smaller medium-sized companies have highly significant reductions in both current ratio and Gearing as well as a significant decrease in I Cover.

The larger medium-sized companies have highly significant reductions in all of current ratio, return on equity and Interest Cover. However, this sample includes any company with revaluation reserves and then it might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this sub-sample might broadly reflect the impact of revaluation under fair value and therefore the impact is not limited to the change in investment property treatment.

5.5.2.2 Companies with overseas turnover (financial instruments)

Initial and subsequent measurement for non-basic financial instruments now will be at fair value, and it will come to balance sheet through P&L. Many of these instruments would not have been recognised on the balance sheet under old UK GAAP but simply disclosed. Financial instruments under fair value may have a significant effect for a wide range of companies, applying FRS 102, regardless of the type of sector as has been said by Interviewee 2:

> You talk about international trade and the need for foreign exchange. Again, you see that it's not sector dependent at all. I mean it's virtually everybody does. Loads and loads of companies do some foreign exchange and that is causing people trouble, they have certainly got fair valued instrument on their balance sheet that they didn't have before is quite a big big change.

H0: The impact of the change in financial instruments accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies with overseas turnover regarding the financial ratios of liquidity, profitability, leverage and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*Companies with Overseas Turnover + β4 ADOPT*POST*LARGER*Companies with Overseas Turnover + Controls

Table 5-17 presents the statistics of a transaction-based analysis related to company with overseas turnover according to company size. This sub-sample was identified

according to companies with overseas turnover as such companies are expected to have non-basic financial instruments such as foreign exchange forward contracts.

Table 5-17 Effect of FRS 102 on smaller vs. larger companies with overseas turnover

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Smaller companies β3	-.063	0.52	-3.88	0.11	-7.82	0.17	-7.23	0.16
Larger companies β4	**.553**	**0.00****	**-4.98**	**0.03****	-9.49	0.08*	8.36	0.19

Source: Table 2.4.1, table 2.4.2, table 2.4.3 and table 2.4.4 in Appendix 2.

Table 5-17 illustrates that smaller medium-sized companies have no impact on their financial ratios, while the larger companies had a highly significant increase in Current Ratio and a significant reduction in Return on Equity. The effect on Current Ratio might be as a result of new recognition of financial instrument as current assets, while decrease in Return on Equity could be caused by the revaluation under fair value through P&L.

5.5.2.3 Companies with Acquisition & disposal (Intangible recognition & Amortization)

The FRS 102 criteria for recognition of the identifiable assets and liabilities of an acquiree differ from current UK GAAP, where such assets and liabilities have to be capable of being disposed of or settled separately. There will be no equivalent 'separation' requirement in FRS 102, meaning more intangible assets are likely to be identified separately from goodwill (Grant Thornton, 2013, p. 1). This change may affect some medium size companies especially those with regular business combinations. This issue has been illustrated by Interviewees 1 and 2.

H0: The impact of the change in Intangibles accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies with acquisition and disposal regarding the financial ratios of profitability, leverage and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*Companies with Acquisition & disposal + β4 ADOPT*POST*LARGER*Companies with Acquisition & disposal + Controls

Table 5-18 shows the statistics of a transaction-based analysis related to intangible assets; recognition and amortization according to company size. This sub-sample was identified according to companies with acquisition and disposal.

Table 5-18 Effect of FRS 102 on smaller vs. larger companies with acquisition and disposal

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Smaller companies β3	-8.42e-07	0.163	**.0000929**	**0.00***	-.000219	0.203	**.0001334**	**0.00***
Larger companies β4	**4.79e-07**	**0.00***	-3.55e-06	0.566	**.0001229**	**0.04****	-5.55e-06	0.763

Source: For CR; Table 2.5.1, for ROE; table 2.5.2, for Gearing; table 2.5.3 and for I Cover; table 2.5.4 in Appendix 2.

Table 5-18 reveals that smaller companies, unexpectedly, have highly significant increases in both Return on Equity and Interest Cover, whereas the larger companies have no significant effect on Return on Equity or Interest Cover. It is against what was expected that there will be more recognition and reclassification, and more amortization that might determine a significant amortization charge hitting the P&L (ACCA, n.d., p. 7). Also, Interviewee 2, states that "Consolidation, business combination is the big issue, that is less so in medium (medium size), which is probably as a kind of straightforward trading business rather than buying and selling of companies. ….. the medium sized companies, they are mostly large owner managed and they mostly going to be not doing tons of difficult consolidations". Also, Interviewee 1, says that "Challenging for smaller medium size entities in separating different intangibles from goodwill. It is a new area to enter in and there is variation in the values of this exercise".

5.5.2.4   Companies with intangibles (amortization)

Regarding the useful economic lives for intangible assets and goodwill, old UK GAAP presumes a maximum useful life of 20 years, but this can be rebutted if a longer or indefinite life can be justified. Under FRS 102, intangible assets and goodwill always have a finite life. If no reliable estimate can be made, the useful life will be limited to a maximum of 10 years (Grant Thornton, 2013, p. 2). FRS 102 requires that intangibles (including goodwill) are amortised over their useful life but to be able to justify where the life is more than ten years. On transition this could lead to some large amounts being written off goodwill. This can affect P&L by increasing yearly amortised expenses. Although it seems to be some significant differences after the transition to FRS 102, Interviewee 1 illustrates that there is no that much impact because of the following reasons:

> No many intangible assets with indefinite life previously. … the clients just justify
> the lives that they had.

Therefore, the transition from old UK GAAP to FRS 102 is not expected to have a significant impact on financial reporting.

H0: The impact of the change in Intangibles (amortization) accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies with Intangibles regarding the financial ratios of profitability, leverage and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*Intangibles + β4 ADOPT*POST*LARGER*Intangibles + Controls

Table 5-19 shows the statistics of a transaction-based analysis related to 'amortization' after the transition according to company size. For this sub-sample, the real value of intangible assets is used to examine the effect of amortization accounting after FRS 102 adoption.

Table 5-19 here

Table 5-19 displays that smaller companies have highly decrease in Interest Cover, while the larger companies have highly significant reductions for both Return on Equity and Interest Cover. These effects were expected according to more amortization which is due to amortizing intangibles during shorter periods of time (shorter useful lives), although Interviewee 1 does not expect such significant impact, saying that "the clients just justify the lives that they had".

Table 5-19 Effect of FRS 102 on smaller vs. larger companies with intangible

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
Smaller companies β3	**-1.77e-06**	**0.00***	-.00001	0.62	.00004	0.21	**-.00005**	**0.00***
Larger companies β4	2.54e-07	0.253	**-.00001**	**0.00***	3.46e-06	0.68	**-.00001**	**0.00***

Source: Table 2.6.1, table 2.6.2, table 2.6.3 and table 2.6.4 in Appendix 2.

5.5.2.5   Construction companies (borrowing costs/ capitalization choice)

FRS 102 includes accounting options for capitalisation of borrowing costs. Unlike old UK GAAP that requires capitalisation of borrowing costs, under FRS 102 it is a policy choice and the capitalisation choice shall be applied consistently to a class of qualifying assets or all borrowing costs shall be recognised as an expense in P&L during the period. Interviewee 1 states that big construction companies may be affected by borrowing costs choices.

H0: The impact of the change in borrowing costs policy choices from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized construction companies regarding the financial ratios of profitability and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*Construction

Companies + β4 ADOPT*POST*LARGER*Construction Companies + Controls

Table 5-20 gives the statistics of a transaction-based analysis related to capitalization choices of borrowing costs according to company size. This sub-sample consists of construction companies which are the most to be affected.

Table 5-20 Effect of FRS 102 on smaller vs. larger construction companies

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
Smaller companies β3	**-.776**	**0.00*****	2.73	0.46	**-28.87**	**0.02****	-22.57	0.06
Larger companies β4	-.298	0.21	-1.84	0.78	-7.97	0.67	26.47	0.33

Source: Table 2.7.1, table 2.7.2, table 2.7.3 and table 2.7.4 in Appendix 2.

Table 5-20 shows that for both smaller and larger medium-sized companies, there is no impact on Return on Equity or on Interest Cover. This is against what was expected by the Interviewee 1 that "big construction companies may be affected by borrowing costs choices".

5.5.2.6   Group companies (Pension cost/scheme & Intra group loans)

Group companies are expected, after FRS 102 implementation, to be affected by both treatments; pension and intra group loans accounting.

Under old UK GAAP a loan with a below market rate of interest was measured at the amount receivable/payable, FRS 102 requires that such a loan is measured initially at the present value of the future cash flows discounted at a market rate. Any difference arising on initial measurement is subsequently allocated over the term of the loan using the effective interest method (FRC, 2015a, p. 14). For some groups, the impact could be significant if loans are not made on market terms and could result in different values being recognised in each company within the group (Grant Thornton, 2014, p. 4).

Multi-employer schemes where an employer is unable to identify its share of the assets and liabilities of a multi-employer defined benefit pension scheme, the scheme will

continue to be accounted for a defined contribution under FRS 102, as is permitted by current UK GAAP. However, where a funding agreement is in place to fund a deficit on such a scheme, FRS 102 requires the recognition of a liability in relation to the payments due under that agreement (Grant Thornton, 2013, p. 2). FRS 102 does not permit the pension liability or asset to only be recognised in the consolidated financial statements, as permitted by FRS 17. Under FRS 102 at least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves (FRC a, SEN 10, p. 3).

H0: The impact of the change in Pension and Intra group loans accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized groups regarding the financial ratios of liquidity, profitability, gearing and interest cover

$$\text{Ratio} = \alpha + \beta1 \text{ ADOPT} + \beta2 \text{ POST} + \beta3 \text{ ADOPT*POST*SMALLER*Groups} + \beta4 \text{ ADOPT*POST*LARGER*Group} + \text{Controls}$$

Table 5-21 presents the statistics of a transaction-based analysis related to group companies according to company size. Groups are expected to be affected by pension accounting (especially larger groups) and intra group loans accounting after FRS 102 adoption.

Table 5-21 Effect of FRS 102 on smaller vs. larger groups

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**	**Coefficient**	**P-value**
Smaller companies β3	-.180	0.08	1.36	0.55	-6.46	0.26	-11.44	0.06
Larger companies β4	**.336**	**0.00*****	**-4.92**	**0.03****	**11.37**	**0.04****	-3.39	0.60

Source: Table 2.8.1, table 2.8.2, table 2.8.3 and table 2.8.4 in Appendix 2.

Table 5-21 illustrates that smaller companies have no significant impact on the ratios, whereas the larger companies have significant increases in both Current Ratio and Gearing and a significant reduction in Return on Equity. Increase in Gearing is expected to be linked to the increase in long term liabilities related to pension provisions. Also, recognizing intra group loans under fair value at the transition might lead to a reduction in distributable reserves (Accountancy Magazine, 2015b, p. 63). The increase in current ratios might be caused by deferred taxation assets on pension liabilities46. Regarding the reduction in return on equity might be linked to the increase in pension cost or/as well as interest expenses on intra group loans under FRS 102.

5.5.2.7 Companies with R&D (capitalization choice)

FRS 102 includes accounting options for capitalisation of development costs. Where an company adopts a policy of capitalisation expenditure in the development phase, that policy shall be applied consistently to all expenditure that meets certain requirements. Expenditure that does not meet certain requirements is expensed as incurred. Development costs may affect Hi-Tech companies. However, the expected impact is low as stated by interviewees (1) and (2).

H0: The impact of the change in development costs policy choices from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies with R&D regarding the financial ratios of profitability and interest cover

Ratio = α + β1 ADOPT + β2 POST + β3 ADOPT*POST*SMALLER*companies with
R&D + β4 ADOPT*POST*LARGER*companies with R&D + Controls

…. gives the statistics of a transaction-based analysis related to companies with R&D according to company size. This is to examine whether the capitalization choices of R&D have different effects between smaller and larger medium size companies.

---

46 According to some observation from actual accounts.

Table 5-22 Effect of FRS 102 on smaller vs. larger companies with R&D

	Current Ratio (CR)		Return on Equity (ROE)		Gearing		Interest Cover (I Cover)	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Smaller companies β3	2.61e-07	0.11	1.94e-06	0.78	**.00005**	**0.00*****	6.79e-06	0.65
Larger companies β4	2.55e-08	0.77	-1.18e-06	0.16	-5.19e-06	0.06	**-.00001**	**0.01****

Source: Table 2.9.1, table 2.9.2, table 2.9.3 and table 2.9.4 in Appendix 2.

Table 5-22 shows that for both smaller and larger companies there is no significant effect on return on equity. This result was expected by the Interviewees 1 and 2, as the impact of capitalization choices of R&D would be low on financial reporting.

5.5.2.8   Companies with operating lease rentals

Under FRS 102, 90% test is no longer exist and as a result it is likely to see a different classification of some leases than was before (under old UK GAAP). And then more judgement may be required to distinguish between the finance and operating lease. The impact on the financial position of a lessee in classifying a lease as a financial lease is mainly derived by the liability recognised at the commencement of the lease term. Also, lease incentives under FRS 102 are spread over the lease term rather than over the shorter period to the first rent review. And this means that the benefits to the lessee or the costs to the lessor may be amortised over a significantly longer period.

However, the FRC illustrates that both standards (SSAP 21 and FRS 102) aim to identify those situations where substantially all the risks and rewards of ownership of an asset are held by a lessee but use different specific tests or indicators. Therefore, there are unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC b, 2013, p. 4). In this regard, the Interviewee 1 states that:

No significant change overall. … the impact is slightly different, no significant reclassification. … Having impact assessment, none of clients came back to reclassify. … most clients apply transition exemptions regarding lease incentive. Interviewee 1

H0: The impact of the change in lease accounting from old UK GAAP to FRS 102 has had no significant variations between smaller and larger medium-sized companies with operating lease rentals regarding the financial ratios of liquidity, profitability, leverage and interest cover

Relationships between different items of leasing (finance and operating):

Results show that there is no reclassification between operating and finance lease, namely, there is no negative correlation between either operating lease rentals and paid on lease, or between operating lease rentals and long-term lease. Correlation coefficient between operating lease rentals and long-term leasing is (0.16) which is positive and low.

5.5.2.9   Companies expected to have significant impact in terms of holiday pay accounting

Universities/higher education sector are highly expected to have an impact after FRS 102 adoption, however, there are no enough observations (Treatment sample is 7 and control sample is 41 companies) for the expected companies to be affected (higher education), as well as the reporting dates of treatment sample are only on 31/12. Also, most of educational companies are charities which have, to some extent, different financial statements. However, holiday pay accruals might have an impact on any companies due to the number of employees, the size of their holiday entitlement and the timing of the entity's year end in relation to the holiday.

But the relationships between accruals and Current Ratio will be tested later on in item-based analysis.

Summary of the size effects for companies likely to have similar transactions

Table 5-23 gives a summary of the statistics of difference in differences analysis based on different sizes to examine whether the impact of FRS 102 adoption varies among medium-sized companies according to different types of transactions with different sizes. The focus in the model is on coefficients $\beta 3$ and $\beta 4$ of interaction terms

$\boldsymbol{\beta3_i}. ADOPT. POST. SMALLER. TRANSACTION$ and $\boldsymbol{\beta4_i}. ADOPT. POST. LARGER. TRANSACTION$. The coefficient β3 captures the extra change in the ratio between 2014 and 2015 because smaller companies with a specific transaction are implementing FRS102. The coefficient β4 captures the extra change in the ratio between 2014 and 2015 because larger companies with a specific transaction are implementing FRS102.

Table 5-23 Summary of analysis based on companies more likely to have transactions: size effect

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST.SMALLER.TRANSACTION + \beta 4_i.ADOPT.POST.LARGER.TRANSACTION$$

Relevant Company. Companies most likely to have similar impacting transactions	Company Size	Coefficient P-value	Impact on financial ratios			
			CR	ROE	Gearing	I Cover
Companies with investment property activity Measurement: dummy variable Definition: The trade description. Related transaction(s): Investment property, deferred tax	Smaller companies	β3 Coefficient	-.171	**13.72**	**-42.98**	85.69
		P-value	0.75	**0.01****	**0.00*****	0.40
	Larger companies	β4 Coefficient	.681	**-6.68**	58.09	**-33.06**
		P-value	0.22	**0.03****	0.18	**0.02****
Real estate companies: Measurement: dummy variable Definition: Code: 681 & 682 in FAME Related transaction(s): Investment property, deferred tax	Smaller companies	β3 Coefficient	**-.742**	4.92	**-45.89**	**-40.99**
		P-value	**0.00*****	0.44	**0.04***	**0.00*****
	Larger companies	β4 Coefficient	.362	-.413	47.03	-12.93
		P-value	0.28	0.92	0.24	0.44
Companies with revaluation reserves Measurement: dummy variable Related transaction(s): Investment property, deferred tax - fair value	Smaller companies	β3 Coefficient	**-.769**	-7.85	**-23.97**	**-16.97**
		P-value	**0.00*****	0.08	**0.00*****	**0.01****
	Larger companies	β4 Coefficient	**-.414**	**-10.92**	-11.05	**-22.27**
		P-value	**0.00*****	**0.00*****	0.15	**0.00*****
Companies with overseas turnover: Measurement: dummy variable Related transaction(s): Financial instruments	Smaller companies	β3 Coefficient	-.063	-3.88	-7.82	-7.23
		P-value	0.52	0.11	0.17	0.16
	Larger companies	β4 Coefficient	**.553**	**-4.98**	-9.49	8.36
		P-value	**0.00*****	**0.03****	0.08	0.19
Companies with Acquisition & disposal: Measurement: Real value Related transaction(s): Intangible recognition, amortisation	Smaller companies	β3 Coefficient	-.0000008	**.00009**	-.0002	**.0001**
		P-value	0.16	**0.00*****	0.20	**0.00*****
	Larger companies	β4 Coefficient	**.0000005**	-.000004	**.0001**	-.000006
		P-value	**0.00****	0.56	**0.04****	0.76
Companies with intangibles: Measurement: value of intangibles Related transaction(s): Amortisation	Smaller companies	β3 Coefficient	**-.000002**	-.00001	.00004	**-.00005**
		P-value	**0.00*****	0.62	0.21	**0.00*****
	Larger companies	β4 Coefficient	.0000003	**-.00001**	.000003	**-.00001**
		P-value	0.25	**0.00*****	0.68	**0.00*****
Construction companies:	Smaller	β3 Coefficient	**-.776**	2.73	**-28.87**	-22.57

Relevant Company. Companies most likely to have similar impacting transactions	Company Size	Coefficient P-value	Impact on financial ratios			
			CR	ROE	Gearing	I Cover
Measurement: dummy variable Related transaction(s): borrowing costs	companies	P-value	**0.00***	0.46	**0.02****	0.06
	Larger companies	β4 Coefficient	-.298	-1.84	-7.97	26.47
		P-value	0.21	0.78	0.67	0.33
Groups: Measurement: dummy variable (more than 5 members in the group) Related transaction(s): Pension costs, intra group loans	Smaller companies	β3 Coefficient	-.180	1.36	-6.46	-11.44
		P-value	0.08	0.55	0.26	0.06
	Larger companies	β4 Coefficient	**.336**	**-4.92**	**11.37**	-3.39
		P-value	**0.00***	**0.03****	**0.04****	0.60
Companies with development costs: Measurement: Value of R&D Related transaction(s): Development costs	Smaller companies	β3 Coefficient	.0000003	.000002	**.00005**	.000007
		P-value	0.11	0.78	**0.00***	0.65
	Larger companies	β4 Coefficient	.00000003	-.000001	-.000005	**-.00001**
		P-value	0.77	0.16	0.06	**0.01****
Companies with operating Lease rentals [1]: Measurement Real values of operating lease rentals Related transaction: Leasing	There is no significant reclassification between operating and finance lease[3].					
Holiday pay	No enough observations					

The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. The Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

The variable Transaction i is a dummy variable and takes a value of 1 if the company has a transaction in category i, and 0 otherwise.

(1) There is no negative correlation either between operating lease rentals and paid on lease, or between operating lease rentals and long-term lease (finance lease). Correlation coefficient between operating lease rentals and long-term leasing is (0.16) which is positive and low.

Sometimes we see changes in I Cover without significant changes in ROE. This might because I Cover is more sensitive for the changes in profit that ROE. Another explanation could be the changes in interest paid on intra group loans.

The focus in the model is on coefficients β3 and β4 of interaction terms $\beta3_i.ADOPT.POST.SMALLER.TRANSACTION$ and $\beta4_i.ADOPT.POST.LARGER.TRANSACTION$ The coefficient β3 captures the extra change in the ratio between 2014 and 2015 because smaller companies with a specific transaction are implementing FRS102. The coefficient β4 captures the extra change in the ratio between 2014 and 2015 because larger companies with a specific transaction are implementing FRS102.

While the previous level of analysis, regardless of the size effect, shows no effect on financial ratios, Table 5-23 shows that smaller medium-sized companies with investment property activity have an increase in return on equity and a reduction in Gearing, whereas larger companies, in the opposite direction, show a decrease in both return on equity and Interest Cover. As for real estate companies, unexpectedly, the larger companies have no effects at all for any of the tested financial ratios. Moreover, even for the smaller companies, there was no change in return on equity. This could be according to what has been mentioned by (Accountancy Magazine, 2015a, p. 61) that 'groups that focus entirely on real estate are likely to have examined their options in great detail already'. Accordingly, options taken by such groups of companies might mitigated the impact, if any. However, the smaller real estate companies have significant decrease in both Gearing and Interest Cover, which is hard to explain?

Regarding the sub-sample of Companies with revaluation reserves, smaller medium-sized companies highly significant reductions in both current ratio and Gearing as well as a significant decrease in Interest Cover. The larger medium-sized companies have highly significant reductions in all of current ratio, return on equity and Interest Cover. However, this sample includes any company with revaluation reserves and then it might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this sub-sample might broadly reflect the impact of revaluation under fair value and therefore the impact is not limited to the change in investment property treatment.

Regarding the sub-sample of Companies with overseas turnover, which expected to have impacts due to the treatment of financial instruments, smaller medium-sized companies had no impact on their financial ratios, while the larger companies had a highly significant increase in CR and a significant reduction in return on equity.

As to the sub-sample of Companies with Acquisition & disposal, which expected to have an impact due to recognition of intangible assets, smaller companies unexpectedly had highly significant increases in both return on equity and I Cover, whereas the larger companies had no significant effect on return on equity or I Cover.

In respect of the sub-sample of Companies with intangibles, which is expected to be affected due to the treatment of amortization, smaller companies had highly decrease in I Cover, while the larger companies had highly significant reductions for both return on equity and I Cover. Such impact can as a result of more amortization which is due to either amortizing intangibles during shorter periods of time (shorter useful lives).

Another sub-sample is Construction companies, which is expected to be affected because of capitalization choices of borrowing costs. For both smaller and larger medium-sized companies, there is no impact on return on equity.

For the sub-sample of group companies, which was expected to have an impact due to accounting treatments of pension costs as well as intra group loans, smaller companies had no significant impact on the ratios, whereas the larger companies had significant increases in both CR and Gearing and significant reduction in return on equity.

Increase in Gearing could be as a result of the increase in long term liabilities related to pension provisions. Also, recognizing intra group loans under fair value at the transition might lead to a reduction in distributable reserves (Accountancy Magazine, 2015b, p. 63).

Regarding the sub-sample of companies with R&D which test the impact of capitalization choices of Development costs, for both smaller and larger companies there is no significant effect on return on equity.

Then, for the sub-sample of companies with operating lease rentals which examine the impact of lease accounting after the transition, there is no significant reclassification between operating and finance lease. Unreported analysis (using both regression and correlation) reveals that there is no relationship between (Paid on Leasing) and (Total Operating Lease Rentals). This indicates that there has been no reclassification between the Operating and Finance lease.

Finally, although holiday pay accruals expected to have impacts for some medium-sized companies and the most expected ones are university/higher education industry. However, there are no enough observations for this population to be tested.

5.5.3 Summary of the main findings of companies likely to have similar transactions

Regarding the analysis based on companies more likely to have the transactions regardless of company size, the affected companies, **<u>overall</u>**, are;

1. Companies with revaluation reserves which reflect the fair value accounting including investment property, had declines in all of Return on Equity, Gearing and Interest Cover.

2. Companies with overseas turnover which represent the impact caused by financial instruments accounting, especially foreign exchange forward contracts, under fair value. These companies had an increase in Current Ratio and reductions in both Return on Equity and Gearing.

3. Companies with intangible assets which reflect amortization accounting of different types of intangibles (shorter useful lives and may be some writing off). These companies had decreases in both Return on Equity and Interest Cover.

4. Group companies which were expected to reflect both intra group loans and pension accounting. These companies had increases in Current Ratio (expected to be linked to treatment of group loans) and Gearing (expected to be caused by increases in pension liabilities).

As it is expected to be some variations in the effect in different directions that might, on average, offset each other, the results of transactions-based analysis are summarized according to **<u>company size</u>** as follows;

For smaller medium-sized companies, the affected companies are;

- Companies with investment property activities, have increase in Return on Equity and a decline in Gearing.

- Real estate companies have reductions in Gearing and Interest Cover.

- Companies with revaluation reserves (fair value impact), have decreases in all of the four ratios.

- Companies with intangibles (amortization effect), have a reduction in Interest Cover.

While the larger medium-sized companies, the affected companies are;

- Companies with investment property activities, have declines in both Return on Equity and Interest Cover.

- Companies with revaluation reserves (fair value impact), have reductions in all of Current Ratio, Return on Equity and Interest Cover.

- Companies with overseas turnover (financial instruments accounting), have an increase in Current Ratio and a decline in Return on Equity.

- Companies with intangibles (amortization effect), have reductions in Return on Equity and Interest Cover.

- Group companies (intra group loans and pension accounting), have increases in Current Ratio and Gearing and a reduction in Return on Equity.

All companies: Overall, size and sector-based analysis:

The previous section presented the impact of FRS 102 adoption basing on the most likely areas/transactions that might cause changes to financial reporting. Although this method is more likely to capture the impact of FRS 102 according to where the changes might be, it is less representative for the population of medium-sized companies. Therefore, the following section focuses on the overall impact of FRS 102 adoption as well as examines in more representative way the all companies considering the company size and type of industry.

5.5.4 All companies: overall effect

After the transition from old UK GAAP to FRS 102, there are several differences in terms of recognition and measurement requirements. Different areas of expected impact as a result of the transition to FRS 102, are investment property, financial instruments, intangibles, capitalization choices, pension costs, intra group loans, leasing and holiday pay. Accordingly, the next hypothesis has been developed to test whether the impact of FRS 102 adoption is the same for all medium-sized companies in the UK or not (on average).

H0: FRS 102 adoption, on average, has had no significant impact on financial ratios of medium size companies in the UK

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST + \text{ Controls}$$

The focus in the model is on coefficient β3. This coefficient captures, on average, the extra change in the ratio between 2014 and 2015 because the companies are implementing FRS102.

Table 5-24 reports the statistics of difference in differences analysis related to the overall impact of FRS 102 adoption on financial ratios of medium size companies.

Table 5-24: The overall impact of FRS 102 on medium sized companies in the first year of compliance (2015) defined as a fixed effect for all companies

$Ratio = a + \beta1.ADOPT + \beta2.POST + \beta3_i.ADOPT.POST +$ Controls

Coefficient	CR		ROE		Gearing		I Cover	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
A	2.731	0.00	20.539	0.00	87.072	0.00		
β1	-.095	0.21	4.766	0.00	23.757	0.00		
β2	-.056	0.47	-.284	0.85	-3.224	0.38		
β3	**.103**	**0.32**	**-1.942**	**0.36**	**4.557**	**0.37**		
CR	-	-	-.880	0.00	-10.534	0.00	Prob > F = 0.56	
ROE	-.001	0.00	-	-	.029	0.65	(The Model is	
Gearing	-.004	0.00	.003	0.75	-	-	insignificant)	
Growth	-.000	0.72	.181	0.00	.134	0.00		
Size	6.09e-09	0.01	-6.26e-08	0.00	1.41e-07	0.01	Also, P-values for all	
Tangibility	-	-	-	-	13.549	0.01	variables are insignificant	
R2	0.05		0.02		0.05			
observations	10,945		10,945		10,945			

The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The focus in the model is on coefficient β3. This coefficient captures, on average, the extra change in the ratio between 2014 and 2015 because the companies are implementing FRS102.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise.

***, **, * indicates significance at 1%, 5% and 10% respectively.

236

Table 5-24 show that there is no fixed effect across all medium size companies whether for current ratio, return on equity, Gearing or Interest Cover. As there is no effect for all medium sized companies on average, we examine whether the results might be related to some corporate characteristics of these companies, such as firm size and industry. To do that, we use different sub-samples for these two categories and then we apply the same analysis to each one of them using key financial ratios.

5.5.5 All companies: size effect

As mentioned in section (6.5.2), transactions of small companies are less complicated and perhaps less affected by the transition; and on the other hand, the largest companies might have more complicated transactions. Moreover, there are some areas of FRS 102 that their impacts might depend on company. Accordingly, we develop the following hypothesis:

H0: Impact of FRS 102 adoption on financial ratios does not significantly vary across different sizes of medium-size companies (quartiles based)

$$R = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST.\sum_i Quartile_i$$

The focus in the model is on coefficient β3. This coefficient captures, according to different sizes (quartiles), the extra change in the ratio between 2014 and 2015 because the companies are implementing FRS102.

Table 5-25 gives the statistics of difference in differences analysis based on different sizes according to quartiles to examine whether the impact of FRS 102 adoption varies across different sizes of medium size companies; (quartiles 1 to 4).

Table 5-25: Impact by size quartiles

$$R = a + \beta1.ADOPT + \beta2.POST + \beta3_i.ADOPT.POST.\sum_i Quartile_i$$

Coefficient	Financial ratios							
	CR		ROE		Gearing		I Cover	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
α	2.837	0.00	19.693	0.00	89.248	0.00	49.556	0.00
β1	-.131	0.05	4.116	0.00	24.718	0.00	1.840	0.63
β2	-.112	0.10	-.821	0.59	-2.416	0.48	2.767	0.52
β3 Q1	**-.441**	**0.00 *****	**10.249**	**0.01 *****	**-2.402**	**0.74**	**-5.598**	**0.45**
β3 Q2	**-.196**	**0.02 ****	**4.234**	**0.11**	**-11.392**	**0.05 ***	**2.393**	**0.72**
β3 Q3	**.165**	**0.11**	**-4.674**	**0.07 ***	**-6.656**	**0.26**	**-3.318**	**0.62**
β3 Q4	**1.208**	**0.00 *****	**-11.470**	**0.00 *****	**35.658**	**0.00 *****	**-14.222**	**0.03 ****
CR	-	-	-.805	0.00	-10.687	0.00	-	-
ROE	-.001	0.00	-	-	.033	0.61	-	-
Gearing	-.004	0.00	.004	0.71	-	-	-	-
Growth	-	-	.1865	0.00	.123	0.01	-	-
Size	-	-	-	-	-	-	-	-
Tangibility	-	-	-	-	12.913	0.01	-	-
R2	0.06		0.02		0.06		0.0008 (Prob > F = 0.27)	
observations	11,091		10,945		10,945		8,235	

The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

The definitions of quartiles are as follows: Q1 = quartile 1 which is equal 1 for companies with total assets < £5,500,000 and 0 otherwise. Q2 = quartile 2 which is equal 1 for companies with total assets between £5,500,000 and 8,800,000, and 0 otherwise. Q3 = quartile 3 which is equal to 1 for companies with total assets between £8,800,000 and 15,000,000, and 0 otherwise. Q4 = quartile 4 which is equal to 1 for companies with total assets > £ 15,000,000, and 0 otherwise.

The focus in the model is on coefficient β3that captures, according to different sizes (quartiles), the extra change in the ratio between 2014 and 2015 because the companies are implementing FRS102.

Table 5-25 illustrates that smaller medium size companies (quartile 1) show a decrease in current ratio and an increase in return on equity (both highly significant), whereas the larger companies (quartile 4), in the opposite direction, have a highly significant increase in current ratio, a highly significant decrease in return on equity, a highly significant increase in Gearing and a significant reduction in Interest Cover.

Transactions of small companies are less complicated and perhaps less likely to be affected by the transition. On the other hand, the larger companies might have more complicated transactions and then more likely to be affected (Gaston et al., 2010). As there are several key differences between the old UK GAAP and FRS 102, it is expected for larger medium-sized companies to be affected, after the transition, as they are expected to have more complicated transactions.

5.5.5.1   An effect according to Size (Smaller vs. Larger medium-sized companies)

From the quartile-based analysis, it seems that there are two different patterns of impact on the financial ratios; one for smaller medium-sized companies (decreases in current ratio and an increase in return on equity and another pattern for larger medium-sized companies (increases in current ratio and Gearing and reduction in ROE and I Cover). Accordingly, we will continue to run next analysis based on two levels of company size (smaller and larger medium-sized companies). Accordingly, the following hypothesis has been developed:

H0: Impact of FRS 102 adoption on financial reporting does not significantly vary across different sizes of medium-size companies (Smaller vs. Larger)

$$R = a + \beta1.\ ADOPT + \beta2.POST + \beta3.ADOPT.POST.SMALLER + \beta4.ADOPT.POST.LARGER$$

The focus in the model is on coefficients $\beta3$ and $\beta4$. These coefficients capture, according to different sizes (smaller vs. larger medium-sized companies respectively), the extra change in the ratio between 2014 and 2015 because the companies are implementing FRS102.

Table 5-26 gives the statistics of difference in differences analysis based on different sizes to examine whether the impact of FRS 102 adoption varies between smaller and larger medium size companies.

Table 5-26: Impact by size - small vs. large companies

R = a + β1. ADOPT + β2.POST + β3.ADOPT.POST.SMALLER + β4.ADOPT.POST.LARGER

Coefficient	Financial ratios							
	CR		ROE		Gearing		I Cover	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
α	2.742	0.00	20.024	0.00	88.282	0.00	48.790	0.00
β1	-.094	0.21	4.747	0.00	23.493	0.00	2.982	0.46
β2	-.057	0.46	-.260	0.86	-3.248	0.37	4.304	0.36
β3	**-.322**	**0.00*****	**4.234**	**0.09 ***	**-4.243**	**0.44**	**-3.35**	**0.60**
β4	**.528**	**0.00 ****	**-8.103**	**0.00 *****	**13.324**	**0.02 ****	**-10.537**	**0.09 ***
CR	-	-	-.769	0.00	-10.687	0.00	-	-
ROE	-.001	0.00	-	-	.033	0.61	-	-
Gearing	-.004	0.00	.004	0.69	-	-	-	-
Growth	-.000	0.42	.185	0.00	.127	0.01	-	-
Size	5.44e-09	0.01	-5.37e-08	0.00	1.30e-07	0.01	-	-
Tangibility	-	-	-	-	12.116	0.02	-	-
R2	0.0636		0.0244		0.0576		0.0004 (Prob > F = 0.446)	
observations	10,945		10,945		10,945		8,235	

The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively. Coefficients β3 and β4 capture, according to different sizes (smaller vs. larger), the extra change in the ratio between 2014 and 2015 because the companies are implementing FRS102. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. The Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

Table 5-26 illustrates that smaller medium-sized companies show a highly significant decrease in current ratio and significant increase in return on equity, whereas the larger medium-sized companies show a highly significant increase in current ratio, a highly significant reduction in return on equity, and a significant increase in Gearing and significant decrease in Interest Cover.

5.5.6   All companies: industries effect

The underlying logic is that firms in the same industry have similar operational properties and face similar economic shocks, whereas firms in different industries may have different operational properties and face different industry-specific shocks. This definition is also supported by the common practice of analysts using firms in the same industry as benchmarks when analysing a firm's financial statements (Yip and Young, 2012, p. 1768).

After transition to IFRS, Gaston et al., (2010) compare the impact of the transition for both Spanish and UK companies. They found that variables such as current ratio and indebtedness depend on the firm activities. They think that it may be due to the different financial structure of the firms in each sub-sample and to the different nature of the activities carried out by them (Gastón et al., 2010). It is possible that the accounting issues of industrial activities have been more affected by the accounting change in Spain. However, the authors state that the differentiation between industrial and commercial or services activity is not relevant to the impact of IFRS on the financial reporting in the United Kingdom. In this regard, Aisbitt (2006) argues that all adjustments, after transition from old UK GAAP to IFRS, are dependent on individual cases and could vary from company to company. Moreover, she states that there were no obvious industry effects (Aisbitt, 2006).

Table 5-27 illustrates industries that might be affected after FRS 102 application. As there is no previous evidence regarding the impact of FRS 102 on financial reporting, the following literature is based on views and experience of the most interested parties in the UK GAAP, such as regulators, professional bodies and practitioners as well as

interviews conducted with highly experienced practitioners that engaged with medium-sized companies after FRS 102 application.

Table 5-27: FRS 102 and Industry effect

Key differences	Industry effect
Investment Properties	**Real estate** – Any other sector (Interviewee 2) - One of the key areas of expected impact is investment property, where there is considerable variation in accounting across GAAPs. While groups that focus entirely on real estate are likely to have examined their options in great detail already, there is also a **significant number** of companies and groups that hold just one or two properties as investment property (Accountancy Magazine, 2015a, p. 61).
Financial Instruments	It is not sector dependent at all. I mean it's virtually **everybody** does (Interviewee 2). **Real estate** companies might be affected (Deloitte, 2013) https://www.iasplus.com/en-gb/publications/uk/point-of-view/2013/new-uk-gaap-real-estate
Deferred tax	'The big impact could be as a result of revaluation of investment properties and PPE. ….. has been a quite significance for some of **property groups**. … The other ones that have been really impacted the **water companies**, deferred tax is a major issue; (Interviewee 1). – Other companies depending on their transactions (PwC, 2015) -
Holiday pay	**University**/higher education (Interviewee 1).
Pension costs	**Groups**
Borrowing costs	**Big construction companies and properties companies** may be affected by borrowing costs choices (Interviewee 1).
Development costs	Whereas development costs may affect **Hi-Tech** companies, however, the expected impact is low (Interviewee 1). -
Intra group loans	**Groups**
Lease	**Retail** (BDO, 2016) – **Manufacturing** and **Property & construction** (Mercia, 2016).
Intangibles	**Retail** (BDO, 2016) – **Manufacturing** (Mercia, 2016) -

However, certain sector could be affected by several transactions. For example; retail companies might be affected by transactions such as lease, business combination, intangibles, joint ventures and associates, borrowing costs, investment property, employee benefits and pension scheme accounting and deferred tax (BDO, 2014). http://www.bdo.ie/getattachment/9fb9754a-bb47-4092-8576-cd1deb59fb24/FRS-102-Retail-and-Property.pdf.aspx

Mercia (2016) illustrates that certain sectors may be affected by different transactions. For example;

- Manufacturing companies; might be (moderately to highly) affected by property, plant & equipment (PPE), intangibles (R&D), operating lease incentives and foreign currency.

- Farming companies; might be moderately affected by investment properties, property, plant & equipment (PPE) and biological assets & agricultural produce.

- Property & construction companies; might be highly affected by investment properties, property, plant & equipment (PPE), borrowing costs, operating lease incentives, financial instruments.

- Tourism and leisure companies; might be moderately affected by investment properties and foreign currency.

Also, there are other sectors which are expected to have low impact such as;

- Transport & logistics; might be affected by property, plant & equipment (PPE) and foreign currency.

- Retail companies; might be affected by Operating lease incentives, Employment benefits, Foreign currency.

http://www.mercia-group.co.uk/Downloads/1454062847_Seven_Sectors.pdf

As there is a lack in the relevant literature regarding the impact of applying new accounting standards on financial reporting as well as the aforementioned argument is in the context of listed companies/IFRS adopters, the following hypothesis examines whether the impact of FRS 102 adoption varies across different industries of medium-sized companies in the UK and to what extent the results are consistent with or different to the previous literature.

H0: Impact of FRS 102 adoption on financial ratios does not significantly vary across different industries of medium-sized companies

$$Ratio = \alpha + \beta 1.POST + \beta 2.ADOPT + \beta 3.POST.ADOPT. \sum_i Industry_i$$

The focus in the model is on coefficient β3 that captures the extra change in the ratio between 2014 and 2015 because a specific industry is implementing FRS102.

Table 5-28 reports the statistics of difference-in-differences analysis according to industry. It shows whether the impact of FRS 102 adoption on financial ratios varies across different industries.

Table 5-28 next page

Table 5-28 illustrates that manufacturing companies which are chemicals, rubber, plastics, non-metallic products and machinery, equipment, furniture, recycling show increases in c*urrent ratio*, whereas there are decreases for other industries such as construction, hotels & restaurants and post & telecommunications. All changes are highly significant. As for *return on equity*, there are four affected industries and all of them with decreases in return on equity. There are significant decreases for machinery, equipment, furniture, recycling, primary sector (agriculture, mining), transport and wood, cork, paper. In respect of *Gearing*, both hotels & restaurants and transport show significant increase in Gearing after transition, while textiles, wearing apparel, leather shows a decrease in Gearing. Regarding *Interest Cover*, there are five industries affected after FRS 102 adoption and all of the changes were reductions in *Interest Cover*. These industries are gas, water and electricity, hotels & restaurants, textiles, wearing apparel, leather, transport and wood, cork, paper.

The image of some industries such as chemicals, rubber, plastics, non-metallic products has, to some extent, been improved, some others have not been affected, while other industries such as hotels & restaurants, transport and wood, cork, paper, their images have been worsened. In other words, these changes might negatively affect the relationship between these companies and the lenders.

It seems that there are some variations among different industries after the transition to FRS 102. This could be due to the different nature of the activities carried out by companies and then the types of transactions that might each different industry has.

Table 5-28: Impact according to industries

$$Ratio = \alpha + \beta1.POST + \beta2.ADOPT + \boldsymbol{\beta3}.POST.ADOPT.\sum_i Industry_i$$

	Model	Financial Ratios							
		CR		**ROE**		**Gearing**		**I Cover**	
		Coefficient β3	P-value	Coefficient β3	P-value	Coefficient β3	P-value	Coefficient β3	P-value
	α	2.74	0.00	20.54	0.00	90.23	0.00	49.16	0.00
Industry	β1	-.066	0.39	-.290	0.85	-3.20	0.38	4.38	0.35
	β2	-.105	0.16	4.76	0.00	23.38	0.00	3.13	0.44
Chemicals, rubber, plastics, non-metallic products	β3	.571	0.00 ***	-4.42	0.12	3.20	0.75	-.890	0.93
Construction	β3	-.475	0.00 ***	-.531	0.88	-16.04	0.15	1.31	0.91
Education, Health	β3	.669	0.09	16.94	0.31	-4.26	0.73	11.52	0.69
Food, beverages, tobacco	β3	.009	0.96	-4.66	0.37	2.09	0.90	-17.41	0.18
Gas, Water and Electricity	β3	1.52	0.16	-4.30	0.82	185.71	0.17	-55.96	0.00 ***
Hotels & restaurants	β3	-.568	0.00 ***	-1.91	0.74	35.49	0.03 **	-26.65	0.01 **
Machinery, equipment, furniture, recycling	β3	.648	0.00 ***	-7.19	0.01 **	-7.35	0.26	-10.20	0.19
Metals & metal products	β3	.215	0.18	-5.37	0.14	-14.69	0.15	-9.54	0.41
Other services	β3	-.117	0.26	2.44	0.40	8.69	0.18	5.06	0.49
Post and telecommunications	β3	-.552	0.00 ***	3.88	0.66	20.44	0.50	4.10	0.87

	Model	Financial Ratios							
		CR		ROE		Gearing		I Cover	
		Coefficient β3	P-value	Coefficient β3	P-value	Coefficient β3	P-value	Coefficient β3	P-value
Primary sector (agriculture, mining)	β3	.962	0.14	-11.54	0.02 **	9.62	0.67	-1.22	0.95
Publishing, printing	β3	1.51	0.09	9.90	0.09	15.32	0.26	-14.41	0.32
Textiles, wearing apparel, leather	β3	.421	0.11	-3.25	0.47	-37.94	0.00 ***	-39.33	0.00 ***
Transport	β3	-.283	0.10	-10.87	0.01 **	66.96	0.00 ***	-39.73	0.00 ***
Wholesale & retail trade	β3	-.030	0.84	-3.41	0.19	-4.99	0.50	-10.54	0.17
Wood, cork, paper	β3	-.257	0.18	-12.85	0.02	44.79	0.08	-45.34	0.00 ***
Controls	CR	-	-	-.867	0.00	-10.46	0.00	-	-
	ROE	-.001	0.00	-	-	-	-	-	-
	Gearing	-.004	0.00	.003	0.74	-	-	-	-
	Growth	-	-	.179	0.00	.138	0.00	-	-
	Size	4.57e-09	0.01	-6.49e-08	0.00	1.34e-07	0.01	-3.22e-08	0.18
	Tangibility	-	-	-	-	7.78	0.11	-	-
	R2	0.06		0.02		0.06		0.004	
	observations	11,091		10,945		10,977		8,235	

The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

The focus in the model is on coefficient β3 that captures the extra change in the ratio between 2014 and 2015 because a specific industry is implementing FRS102.

5.5.7   All companies: industry-size effect

As there have been some variations among different industries, and also as it has been seen that changes after the transition showed variations according to company size, therefore, the following hypothesis examines whether the impact of FRS 102 adoption varies among different industries with different sizes. Also, to know whether there are any changes in different directions (positive and negative) that might offset each other. For this purpose, the following hypothesis has been developed:

H0: Impact of FRS 102 adoption on financial ratios does not significantly vary across different industries with different sizes

$$Ratio = \alpha + \beta 1.POST + \beta 2.ADOPT +$$
$$\beta 3.POST.ADOPT.SMALLER.\sum_i Industry_i +$$
$$\beta 4.POST.ADOPT.LARGER.\sum_i Industry_i$$

The focus in the model is on coefficients β3 and β4. Coefficient β3 captures the extra change in the ratio between 2014 and 2015 because the smaller companies in a specific industry are implementing FRS102. Coefficient β4 captures the extra change in the ratio between 2014 and 2015 because the larger companies in a specific industry are implementing FRS102.

Table 5-29 gives the statistics of difference in differences analysis according to the interaction between industry and size. It shows whether the impact of FRS 102 adoption on financial ratios varies across different industries with different sizes.

Table 5-29: Impact of FRS 102 on medium size companies classified according to industry and size

$$Ratio = \alpha + \beta1.POST + \beta2.ADOPT + \boldsymbol{\beta3}.POST.ADOPT.SMALLER.\sum_i Industry_i + \boldsymbol{\beta4}.POST.ADOPT.LARGER.\sum_i Industry_i$$

Industry	Coefficient	Financial Ratios							
		CR		ROE		Gearing		I Cover	
		Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
	α	2.800	0.00	18.932	0.00	89.653	0.00	48.790	0.00
	β1	-.0594	0.44	.448	0.77	-3.191	0.38	4.304	0.36
	β2	-.091	0.22	3.433	0.03	23.737	0.00	2.982	0.46
Chemicals, rubber, plastics, non-metallic products	β3 smaller	-.295	0.02**	-.992	0.84	5.117	0.75	16.157	0.45
	β4 larger	1.130	0.00***	-3.983	0.12	1.589	0.89	-13.908	0.13
Construction	β3 smaller	-.656	0.00***	2.527	0.54	-25.849	0.04**	-12.909	0.26
	β4 larger	-.179	0.47	-2.278	0.74	-2.394	0.90	36.188	0.18
Education, Health	β3 smaller	.018	0.95	45.747	0.16	-5.749	0.78	15.018	0.73
	β4 larger	1.239	0.07*	-8.173	0.01**	-3.991	0.77	9.092	0.81
Food, beverages, tobacco	β3 smaller	-.086	0.72	5.595	0.37	-32.085	0.01**	1.994	0.93
	β4 larger	.040	0.91	-11.638	0.12	32.224	0.24	-34.359	0.00***
Gas, Water and Electricity	β3 smaller	.647	0.59	11.570	0.06*	-76.967	0.00***	-57.644	0.00***
	β4 larger	2.146	0.15	-22.881	0.45	362.909	0.02**	-55.821	0.00***
Hotels & restaurants	β3 smaller	-.940	0.00***	24.025	0.16	-4.031	0.84	-6.783	0.70
	β4 larger	-.292	0.21	-12.838	0.00***	55.528	0.00***	-34.583	0.00***
Machinery, equipment, furniture, recycling	β3 smaller	-.069	0.73	-7.230	0.06*	-9.252	0.26	-11.981	0.22
	β4 larger	1.266	0.00***	-3.273	0.40	-5.141	0.54	-7.888	0.40
Metals & metal products	β3 smaller	-.128	0.43	-1.463	0.79	-18.015	0.22	-2.730	0.87
	β4 larger	.518	0.03**	-5.295	0.13	-11.430	0.36	-17.533	0.12
Other services	β3 smaller	-.404	0.00***	16.041	0.00***	-7.491	0.32	15.549	0.10
	β4 larger	.173	0.17	-7.795	0.00***	21.466	0.01**	-4.303	0.61
Post and telecommunications	β3 smaller	-.333	0.09*	15.599	0.29	11.393	0.75	1.930	0.95

Industry	Coefficient	Financial Ratios							
		CR		ROE		Gearing		I Cover	
	β4 larger	-.797	0.00***	-6.306	0.51	30.049	0.55	6.001	0.87
Primary sector (agriculture, mining	β3 smaller	-.113	0.73	.864	0.87	-56.077	0.00***	-23.551	0.16
	β4 larger	1.427	0.11	-15.725	0.01**	37.003	0.22	9.619	0.73
Publishing, printing	β3 smaller	-.676	0.00***	19.387	0.05*	7.837	0.67	-40.070	0.00***
	β4 larger	3.292	0.04**	3.458	0.57	16.598	0.35	9.727	0.70
Textiles, wearing apparel, leather	β3 smaller	-.322	0.25	2.782	0.69	-50.855	0.00***	-32.119	0.00***
	β4 larger	.9190	0.01**	-4.386	0.43	-28.826	0.02**	-44.590	0.00***
Transport	β3 smaller	-.555	0.00***	-6.005	0.39	90.114	0.00***	-35.295	0.00***
	β4 larger	.039	0.90	-14.810	0.00***	33.530	0.06**	-47.437	0.00***
Wholesale & retail trade	β3 smaller	-.445	0.00***	2.813	0.28	-15.799	0.05**	-6.489	0.48
	β4 larger	.553	0.11	-9.370	0.02**	12.155	0.31	-16.346	0.09*
Wood, cork, paper	β3 smaller	-.462	0.08*	-13.964	0.15	46.175	0.22	-43.914	0.00***
	β4 larger	-.114	0.65	-7.479	0.09*	43.091	0.20	-46.308	0.00***
	CR	-	-	-.710	0.00	-10.291	0.00	-	-
	ROE	-.001	0.00	-	-	.032	0.62	-	-
	Gearing	-.004	0.00	.003	0.78	-	-	-	-
	Growth	-	-	.296	0.00	.131	0.01	-	-
	Size	-	-	-	-	-	-	-	-
	Tangibility	-	-	-	-	10.653	0.03	-	-
	R2	0.06		0.03		0.06		0.006 (Prob > F = .)	
	observations	11,091		10,727		10,945		8,235	

Notes: The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

The variable Industry i is a dummy variable, and takes a value of 1 if the company is located in industry i, and 0 otherwise.

Coefficient **β3** captures the extra change in the ratio between 2014 and 2015 because the smaller companies in a specific industry are implementing FRS102. Coefficient **β4** captures the extra change in the ratio between 2014 and 2015 because the larger companies in a specific industry are implementing FRS102.

Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. The Larger size is a dummy variable that equals to 1 if total assets > £ 8,800,000 and equal 0 otherwise.

Regarding current ratio (CR), Table 5-29 illustrates that for smaller medium-sized companies that industries of chemicals, rubber, plastics, non-metallic products, construction, hotels & restaurants, other services, publishing, printing, transport and Wholesale & retail trade show a decrease in CR, while the larger medium-sized companies in industries such as Chemicals, rubber, plastics, non-metallic products, Machinery, equipment, furniture, recycling, Metals & metal products, Publishing, printing and Textiles, wearing apparel, leather reveal increases in CR. As can be seen, all of the larger industries, with increases in CR, are manufacturing. The only larger industry with a reduction in CR is in Post and telecommunications.

As for return on equity (ROE), Table 5-29 reports that for smaller medium-sized companies that the only affected industry is Other services with an increase in ROE, whereas the larger medium-sized companies in the affected industries, such as Education, Health, Hotels & restaurants, Other services, Primary sector (agriculture, mining), Transport and Wholesale & retail trade all of them show a reduction in ROE.

In respect of Gearing, Table 5-29 reveals that for smaller medium-sized companies that most of the affected industries such as Construction, Food, beverages, tobacco, Gas, Water and Electricity, Primary sector (agriculture, mining), Textiles, wearing apparel, leather and Wholesale & retail trade show a decrease in Gearing and the only one that show an increase is Transport. In the opposite direction, the larger companies in industries such as Gas, Water and Electricity, Hotels & restaurants, Other services and Transport show an increase in Gearing, and the only large companies with a reduction in Gearing is in Textiles, wearing apparel, leather.

While for Interest Cover, Table 5-29 shows that all the changes in certain industries are decreases in Interest Cover regardless of the company size within the different industries. The affected industries are Food, beverages, tobacco (larger companies), Gas, Water and Electricity (for smaller and larger companies alike), Hotels & restaurants (larger companies), Publishing, printing (smaller companies), Textiles, wearing apparel, leather (for smaller and larger companies alike), Transport (for smaller and larger companies alike) and Wood, cork, paper (for smaller and larger companies alike).

As can be seen in Table 5-30, the number of affected industries, in Table 5-29 has doubled compared to Table 5-28. This means that difference in differences analysis using an interaction between industry and size (rather than only industry) shows the variations caused by the transition to FRS 102. The analysis without the interaction between industry and size (as in Table 5-28) did not reveal much of changes in financial ratios as there are changes in different directions which, on average, offset each other. For example, Other services shows, overall, that there is no effect for ROE, while the analysis reveals that there is a highly significant increase for smaller companies and a highly significant reduction for larger companies in ROE.

5.5.8 Summary of the main findings of all companies: overall, size and industry effects

To sum up, Table 5-30 summarize the overall impact of FRS 102 on financial ratios, size effect and industry effect.

While there is no effect on average (overall impact), company size seems crucial in showing the impact of FRS 102 on financial ratios. Moreover, this applies for both cases; size-based analysis as well as industry*size-based analysis.

Table 5-30 Summary of overall, Size and industry effect

Overall, Size and Sector-based analysis	Impact on financial ratios			
	CR	ROE	Gearing	I Cover
1. Overall impact	No Sig.	No Sig.	No Sig.	No Sig.
2. Impact by size according to quartiles:				
3.1 Quartile 1	↓***	↑**	No Sig.	No Sig.
3.2 Quartile 2	↓**	No Sig.	↓*	No Sig.
3.3 Quartile 3	No Sig.	↓*	No Sig.	No Sig.
3.4 Quartile 4	↑***	↓***	↑***	↓**
3. Impact by size:				
3.1 Smaller companies	↓***	↑*	No Sig.	No Sig.
3.2 Larger companies	↑***	↓***	↑**	↓*
4. Impact according to industry (overall):	Chemicals ↑*** Construction ↓*** Education, Health ↑* Hotels ↓*** Machinery ↑*** Telecomm. ↓*** Publishing ↑*	Machinery ↓** Primary sec. ↓** Publishing ↑* Transport ↓** Wood ↓**	Hotels ↑** Textiles ↓*** Transport ↑*** Wood ↑*	Gas, Water ↓*** Hotels ↓** Textiles ↓*** Transport ↓*** Wood ↓***
5. Impact according to industry*Size:				
5.1 Smaller industries	Chemicals ↓** Construction ↓*** Hotels ↓*** Other services ↓*** Telecomm. ↓* Publishing ↓*** Transport ↓*** Wholesale ↓*** Wood ↓*	Gas & Water ↑* Machinery ↓* O. services ↑*** Publishing ↑*	Construction ↓** Food ↓** Gas & Water ↓*** Primary sec. ↓*** Textiles ↓*** Transport ↑*** Wholesale ↓**	Gas, Water ↓*** Publishing ↓*** Textiles ↓*** Transport ↓*** Wood ↓***
5.2 Larger industries	Chemicals ↑*** Education, Health ↑* Machinery ↑*** Metals ↑** Telecomm. ↓*** Publishing ↑** Textiles ↑**	Education, Health ↓** Hotels ↓*** O. services ↓*** Primary sec. ↓** Transport ↓*** Wholesale ↓** Wood ↓*	Gas & Water ↑** Hotels ↑*** O. services ↑** Textiles ↓** Transport ↑**	Food ↓*** Gas, Water ↓*** Hotels ↓*** Textiles ↓*** Transport ↓*** Wholesale ↓* Wood ↓***

Notes: *** Significant at 1% and ** Significant at 5% levels. Not Sig. means there is no significant impact. No Sig. means that there is no significant effect. Industries names in full are as follows; 1. Chemicals, rubber, plastics, non-metallic products. 2. Construction. 3. Education, Health. 4. Food, beverages, tobacco. 5. Gas, Water and Electricity. 6. Hotels & restaurants. 7. Machinery, equipment, furniture, recycling. 8. Metals & metal products. 9. Other services. 10. Post and telecommunications. 11. Primary sector (agriculture, mining, etc.). 12. Publishing, printing. 13. Textiles, wearing apparel, leather. 14. Transport. 15. Wholesale & retail trade. 16. Wood, cork, paper.

Reasons behind the effect: Items-based analysis

As can be seen, the financial ratios have changed, after FRS 102 adoption, and the company size seemed to play an important role in describing the effect variations. However, it is still not known what the reasons behind the changes in the tested financial ratios, i.e., which sections of FRS 102 have caused the changes to accounting numbers and then on financial ratios.

The purpose of this level of analysis is to examine the relationships between specific financial statements' items with the tested financial ratios. This is to connect the changes in the financial ratios with the relevant sections of FRS 102 responsible for these changes.

Different sections of FRS 102 and the expected effects on financial ratios

The following tables illustrate how different sections of FRS 102 might affect different financial ratios. For each financial ratio, there is a table which clarifies the expected relationships between each ratio with the relevant items of financial statements that reflect which sections of FRS 102 have caused the effects on the examined financial ratios. Starting with current ratio, Table 5-31 demonstrates the expected effects between financial statements items and current ratio.

Table 5-31: FRS 102 and the expected effects on Current Ratio (CR)

Differences	Current assets	Current liabilities	Current ratio
Financial Instruments	Look at the last column: (CR)	"Recognizing derivatives could have a critical effect on ratios involving liabilities" (Accountancy Magazine, 2014, p. 51).	Now that forward contracts will be recognised at fair value, this could affect the balance sheet figures used to calculate the current ratio (Grant Thornton, 2014, p. 7), New UKGAAP, Transition to FRS 102: what are the time critical issues? Where FIs are classified as non-basic, the effect is anything and massive, depending what their fair value is, it can give them a certain liability, it can give them a sudden loss that decimates their balance sheet (Interviewee 2).
Holiday pay	-	Expected to be an increase in creditors due within one year (accruals) (ACCA, technical factsheet 181, p. 19) -	No significant impact, The large majority not. Big impact in universities (Interviewee 1).
Intra group loans	-	Borrowers have to classify the liability as current (payable on demand) if they want to avoid recognizing intra group loan on market terms (Accountancy Magazine, 2016, p. 63).	
Lease*	It is unlikely to be many cases where the lease classification will change as a result of applying of FRS 102 (FRC, 2013c, p. 4). No significant change overall ….. the impact is slightly different, no significant reclassification. ….. Having impact assessment, none of clients came back to reclassify. ..… most clients apply transition exemptions regarding lease incentive (Interviewee 1).		

* Note: this applies for all of the studied financial ratios, and therefore, this section will not be repeated for the rest of financial ratios later on.

As for ROE, Table 5-32 presents the likely reasons that might cause changes to return on equity ratio.

Table 5-32: FRS 102 and the expected effects on Return on Equity (ROE)

Key differences	Earnings	Equity
Investment Properties	Volatility ↓↑ (Interviewee 1), & Accountancy Magazine, 2014, p. 52).	↑ in Retained earnings
Financial Instruments	Fluctuations ↑↓ (Interviewee 2) - it can give them a sudden loss (Interviewee 2) – ↓ "fair value movements on derivatives could send profit levels below where they need to be" (Accountancy Magazine, 2014, p. 52).	Could cause a reduction in revenue reserves to recognize derivatives at fair value for the first time (Accountancy Magazine, 2015b, p. 62).
Holiday pay	The main impact will be increased employee costs hitting the profit or loss and then reducing its distributable profits (ACCA, technical factsheet 181, p. 19).	
Pension costs	More charges on P&L: pension costs before = contributions paid. Now, = contributions paid + interest on the scheme deficit (Accountancy Magazine, 2016b, p. 49).	At least one company will apply defined benefit accounting depending on the policy for charging pension costs around the group. This may have an impact on distributable reserves (FRC, 2013f, p. 3).
Borrowing costs	Might more charges on P&L for large construction companies.	
Development costs	Whereas development costs may affect Hi-Tech companies, however, the expected impact is low (Interviewee 1).	
Intra group loans	May increase taxable profits of the lender by imputed interest income (Accountancy Magazine, 2013, p. 61). A discount on initial recognition, depends on who you are, whether it is a capital contribution, or it is profit, it is capital contribution if you are a holding company (and) it is a profit you are a shareholder (Interviewee 2) - The impact could be significant if loans are not made on market terms and could result in different values being recognized in each company within the group (Grant Thornton, 2014, p. 4).	Might lead to a reduction in distributable reserves because of transition adjustment to recognize loans at fair value (Accountancy Magazine, 2015b, p. 63).
Intangibles	More recognition and reclassification, and more amortization. For material assets, such as goodwill acquired in a business combination, that may determine a significant amortization charge hitting the P&L. Also, a substantial amortization charge arising after the acquisition of intangibles and goodwill is likely to impact on the operating profit margin and reserves of an company and therefore may result in the breach of debt covenants, like PBIT-based interest cover, gearing and dividend cover (ACCA, technical factsheet 181, p. 7). Regarding intangibles, 'If you're in this group of companies (medium), yes, it does have some impact' (Interviewee 2).	
Amortization	More amortization during shorter periods of time (less useful lives) might reduce P&L. However, no many intangible assets with indefinite life previously. … the clients just justify the lives that they had (Interviewee 1).	

Regarding Gearing, Table 5-33 discusses the possible parts of FRS 102 that might cause the change.

Table 5-33: FRS 102 and the expected effects on Gearing

Key differences	Labilities	Equity
Investment Properties	↑ in deferred tax provisions (Interviewee 1, for example).	Much more ↑ in retained earnings than ↑ in associated deferred tax.
Financial Instruments	↑ tax liability (Interviewee 2) – "recognizing derivatives could have a critical effect on ratios involving liabilities" (Accountancy Magazine, 2014, p. 51).	
Deferred tax	Deferred tax (provisions) on asset revaluations and on assets (except goodwill) and liabilities arising on a business combination, revaluation differences on investment properties and unremitted earnings of subsidiaries, associates and joint ventures (PwC, 2015).	
Pension costs	More liabilities on balance sheet' (Interviewee 1).	Impact on distributable reserves (FRC, 2013f, p. 3).
Intangibles	A substantial amortization charge arising after the acquisition of intangibles and goodwill is likely to impact on the operating profit margin and reserves of a company and therefore <u>may result in the breach of debt covenants, like PBIT-based interest cover, **gearing** and dividend cover</u> (ACCA, technical factsheet 181, p. 7). Regarding intangibles, 'If you're in this group of companies (medium), yes, it does have some impact' (Interviewee 2).	
Amortization		

As to Interest Cover, Table 5-34 illustrates the expected reasons behind the impact as follows;

Table 5-34: FRS 102 and the expected effects on Interest Cover (I Cover)

Key differences	Profit before interest	Interest paid
Investment Properties	↑↓ volatility (Interviewee 1), & (Accountancy Magazine, 2014, p. 52) – I Cover might be breached by fair value movements on IPs (Accountancy Magazine, 2014, p. 53).	
Financial Instruments	"fair value movements on derivatives could send profit levels below where they need to be" (Accountancy Magazine, 2014, p. 52).	
Holiday pay	The main impact will be increased employee costs hitting the profit or loss and then reducing its distributable profits (ACCA, technical factsheet 181, p. 19).	
Pension costs	More charges on P&L: pension costs before = contributions paid. Now, = contributions paid + interest on the scheme deficit (Accountancy Magazine, 2016b, p. 49).	
Borrowing costs	↓ Might more charges on P&L for large construction companies.	
Development costs	Whereas development costs may affect Hi-Tech companies, however, the expected impact is low (Interviewee 1).	
Intra group loans	↑ for lenders - ↓ for borrowers	↑ for borrowers
Intangibles	A substantial amortization charge arising after the acquisition of intangibles and goodwill is likely to impact on the operating profit margin and reserves of an entity and therefore <u>may result in the breach of debt covenants, like **PBIT-based interest cover**, gearing and dividend cover</u> (ACCA, technical factsheet 181, p. 7). Regarding intangibles, 'If you're in this group of companies (medium), yes, it does have some impact' (Interviewee 2).	
Amortization		

To sum up, depending on aforementioned materials from the following sources;

- Regulators: FRC; Staff Education Notes (SENs: 1-16), impact assessments and other materials;

- Materials from Professional bodies such as ICAEW and ACCA;

- Practitioners views and assessments; from the big 4 and Accountancy Magazine;

- Interviews conducted with highly experienced practitioners that engaged with medium-sized companies after FRS 102 adoption,

The expected impact of FRS 102 on financial ratios can be summarized as in Table 5-35;

Table 5-35 Summary of expected effect of FRS 102 on financial ratios

Key differences	CR	ROE	Gearing	I Cover
Investment Properties	-	↑↓	↓	↑↓
Financial Instruments	↓ or ↑	↓↑ or ↓	↑ or ↓	↓↑ or ↓
Deferred tax	-	-	↑	-
Holiday pay accruals	↓	↓	-	↓
Pension costs/liabilities	-	↓	↑	↓
Borrowing costs	-	↓	-	↓
Development costs	-	-	-	-
Intra group loans	↓	↑ for lenders ↓for borrowers	-	↓for borrowers
Lease	-	-	-	-
Intangibles*	-	↓	↑	↓
Amortization	-	↓	↑	↓

* Recognition, reclassification and impairment.

Accordingly, the research hypotheses can be developed as follows;

H0: Overall, there are no significant relationships between **current ratio** and financial instruments, holiday pay accruals and intra group loans.

H0: Overall, there are no significant relationships between **return on equity** and Investment Properties, financial instruments, holiday pay accruals, Pension costs, borrowing costs, intra group loans intangibles and amortization.

H0: Overall, there are no significant relationships between **Gearing** and Investment Properties, financial instruments, deferred tax, Pension liabilities, intangibles and amortization.

H0: Overall, there are no significant relationships between **Interest Cover** and Investment Properties, financial instruments, holiday pay accruals, Pension costs, borrowing costs, intra group loans intangibles and amortization.

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST.ITEM \ ^{47}$$

The focus in the model is on coefficient β3 of interaction term ($\beta 3_i.ADOPT.POST.ITEM$). This coefficient captures the extra change in the ratio between 2014 and 2015 caused by the change in the items of FRS102 adopters. These items, from the financial statements, reflect the impact of FRS 102. In other words, each item from financial statements matches a sub-section/FRS within the FRS 102.

5.5.9   Items-based analysis: overall effect

Table 5-36 shows the overall effect of items-based analysis regardless of the company size. All independent variables/possible items, stated in hypotheses, are tested but Table 5-36 summarizes only the independent variables with significant relationships with the financial ratios.

Summary of the relationships between financial ratios and the expected items:
Overall

Statistics in Table 5-36 are taken from tables 3.1.1 to 3.4.3 in Appendix 2, as follows:

For coefficients and P-values of current ratio, are from tables 3.1.1 and 3.1.2 (Appendix 2).

For coefficients and P-values of return on equity are from tables 3.2.1 and 3.2.2 (Appendix 2).

For coefficients and P-values of gearing are from tables 3.3.1 and 3.3.2 (Appendix 2).

For coefficients and P-values of Interest Cover are from tables 3.4.1, 3.4.2 and 3.4.3 (Appendix 2).

---

[47] For some cases, we use companies rather than items. This is when the relevant item is not available.

Table 5-36 Summary of the relationships between financial ratios and the expected items (overall)

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST.ITEM + \text{Controls}$$

Item	β3 Coefficient P-value	Financial ratios			
		CR	**ROE**	**Gearing**	**I Cover**
Overseas turnover (E)	β3 Coefficient	.244	-	-	-
	P-value	0.00***	-	-	-
Group loans (I) (short term liabilities)	β3 Coefficient	-.00000001	-	-	-.0000001
	P-value	0.03**	-	-	0.00***
Amortization (I)	β3 Coefficient	-	-.000013	-	-.0000128
	P-value	-	0.00***	-	0.00***
Revaluation reserves (E) (Fair value impact)	β3 Coefficient	-	-9.62	-	-19.99
	P-value	-	0.00***	-	0.00***
Pension liabilities[1] (I)	β3 Coefficient	-	-	.000004	-
	P-value	-	-	0.02**	-
Deferred tax (I)	β3 Coefficient	-	-	.000009	-
	P-value	-	-	0.00***	-

Notes: The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

The focus in the model is on coefficient β3 of interaction term $(\beta 3_i.ADOPT.POST.\sum_i Item_i)$. This coefficient captures the extra change in the ratio between 2014 and 2015 caused the change in the financial statement items of FRS102 adopters. These items, from the financial statements, reflect the impact of FRS 102. In other words, each item from financial statements matches a sub-section/FRS within the FRS 102.

(1) The explanatory power of pension liabilities model ($R^2 = 0.23$) is much more than that of the deferred tax ($R^2 = 0.06$).

(E) is a certain class of companies which are expected to have changes after FRS 102, whereas (I) is a specific item from the financial statements. Therefore, item-based estimations are more accurate than those based on the certain classes of companies as a certain class of companies might have different types of transactions.

Regarding (E) the company's classes, they are as follows; companies with overseas turnover (dummy) and companies with revaluation reserves (dummy). The other independent variables are items form the financial statements.
(Unreported) results show that there is no reclassification between operating and finance lease, namely, there is no negative correlation either between operating lease rentals and paid on lease, or between operating lease rentals and long-term lease.

Regarding current ratio, Table 5-36 shows a negative relationship with short-term group loans. This was expected as companies with intra-group loans might avoid the treatment of such loans by saying that the loans are payable on demand, and this in turn lead to classify such loans as current liabilities (Accountancy Magazine, 2016, p. 63). Also, companies with overseas turnover had a highly significant increase in current ratio. This was expected as a result of the treatment of financial instruments especially foreign exchange forward contracts.

As expected, both return on equity and Interest Cover ratios are affected by the same transactions which are amortization and revaluations under fair value. Additionally, there was an impact on Interest Cover caused by short-term group loans. This is as was expected as a result of increases in interest paid which was not recognized under old UK GAAP or recognized at rates less than the market rate.

As for Gearing, as expected, there is a highly significant relationship with deferred tax and a significant relationship pension liability.

5.5.10 Items-based analysis: size effect

The transactions of smaller companies are less complicated and perhaps less affected by the transition; and on the other hand, the largest companies might have more complicated transactions Gaston et al., (2010). Also, there are some areas of FRS 102 that their impacts might depend on company size. Moreover, our results reveal that the effect on financial ratios varies according to company size and the effects between smaller and larger medium-sized companies are in two different directions. Accordingly, items-based analysis will be conducted according to company size. Hypotheses are stated as follows:

H0: Impact of financial instruments, holiday pay accruals and intra group loans on **current ratio** do not vary between smaller and larger medium-sized companies.

H0: Impact of Investment Properties, financial instruments, holiday pay accruals, Pension costs, borrowing costs, intra group loans intangibles and amortization on **return on equity** do not vary between smaller and larger medium-sized companies.

H0: Impact of Investment Properties, financial instruments, deferred tax, Pension liabilities, intangibles and amortization on **Gearing** do not vary between smaller and larger medium-sized companies.

H0: Impact of Investment Properties, financial instruments, holiday pay accruals, Pension costs, borrowing costs, intra group loans intangibles and amortization on **Interest Cover** do not vary between smaller and larger medium-sized companies.

The model:

$$Ratio = a + \beta 1. ADOPT + \beta 2. POST + \beta 3_i. ADOPT.POST.SMALLER. \sum_i Item_i + \beta 4_i. ADOPT.POST.LARGER. \sum_i Item_i + Controls$$

The focus in the model is on coefficients β3 and β4. The coefficient β3 captures the extra change in the ratio between 2014 and 2015 caused by the change in the financial statement item of the smaller medium-sized companies applying FRS102. The coefficient β4 captures the extra change in the ratio between 2014 and 2015 caused by the change in the financial statement item of the larger medium-sized companies applying FRS102. These items, from the financial statements, reflect the impact of FRS 102. In other words, each item from financial statements matches a sub-section/FRS within the FRS 102.

Summary of the relationships between financial ratios and the expected items: Size effect

Table 5-37 presents the size effect of items-based analysis which shows the effect variations between smaller and larger medium-sized companies. All independent variables/possible items, stated in hypotheses, are tested but Table 5-37 summarizes only the independent variables with significant relationships with the financial ratios.

Statistics in Table 5-37 are taken from tables 4.1.1 to 4.4.5 in Appendix 2, as follows:

For coefficients and P-value of *current ratio*, are from tables 4.1.1, 4.1.2, and 4.1.3 (Appendix 2).

For coefficients and P-value of *return on equity* are from tables 4.2.1, 4.2.2, 4.2.3 and 4.2.4 (Appendix 2).

For coefficients and P-value of *gearing* are from tables 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5 and 4.3.6 (Appendix 2).

For coefficients and P-value of *Interest Cover* are from tables 4.4.1, 4.4.2, 4.4.3, 4.4.4 and 4.4.5 (Appendix 2).

Table 5-37: Summary of the relationships between financial ratios and the expected items according company size

$$Ratio = a + \beta 1.ADOPT + \beta 2.POST + \beta 3_i.ADOPT.POST.SMALLER.\sum_i Item_i +$$
$$\beta 4_i.ADOPT.POST.LARGER.\sum_i Item_i + Controls$$

| Item (I)/companies (E) | Coefficient P-value | Financial ratios | | | | | | | |
| | | CR | | ROE | | Gearing | | I Cover | |
		Smaller companies	Larger companies	Smaller companies	Larger companies	Smaller companies	Larger companies	Smaller companies	Larger companies
Investment property (E)	β3/β4	-	-	-	-	-46.97	-	-	-33.29
	P-value	-	-	-	-	0.00***	-	-	0.02**
Real estate companies (E)	β3/β4	-	-	-	-	-45.80	-	-42.30	-
	P-value	-	-	-	-	0.04**	-	0.00***	-
Revaluation reserve (Fair Value impact) (E)	β3/β4	-	-	-4.82	-12.49	-22.98	-	-17.16	-21.33
	P-value	-	-	0.01**	0.00***	0.00***	-	0.01**	0.00***
Financial instruments (overseas turnover) (E)	β3/β4	-	.558	-	-	-	-10.77	-	-
	P-value	-	0.02**	-	-	-	0.04**	-	-
Deferred tax liabilities (I)	β3/β4	-	-	-	-	-	.000009	-	-
	P-value	-	-	-	-	-	0.00***	-	-
accruals & deferred income (I)	β3/β4	-.0000006	-	.00001?	-	-	-	-	-
	P-value	0.00***	-	0.00***	-	-	-	-	-
Pension costs/liabilities (I)	β3/β4	-	-	-	-	.00004	.000004	-	-
	P-value	-	-	-	-	0.00***	0.02**	-	-

Item (I)/companies (E)	Coefficient P-value	Financial ratios							
		CR		ROE		Gearing		I Cover	
		Smaller companies	Larger companies	Smaller companies	Larger companies	Smaller companies	Larger companies	Smaller companies	Larger companies
Borrowing costs (E)	β3/β4	-	-	-	-	-	-	-	-
	P-value	-	-	-	-	-	-	-	-
Development costs (I)	β3/β4	-	-	-	-	-	-	-	-
	P-value	-	-	-	-	-	-	-	-
Intra group loans (short term liabilities) (I)	β3/β4	-.0000004	-.000000004	-	-	-	-	-.000004	-.0000002
	P-value	0.00***	0.03**	-	-	-	-	0.00***	0.00***
Leasing (I)	β3/β4	-	-	-	-	-	-	-	-
	P-value	-	-	-	-	-	-	-	-
Amortization (I)	β3/β4	-	-	-	-.00001	-	-	-.00005	-.00002
	P-value	-	-	-	0.00***	-	-	0.00***	0.00***

Notes: The dependent variables (Ratio) are taken from the FAME data base: CR is the current ratio, defined as current assets divided by current liabilities; ROE is return on equity, defined as profit (loss) before tax over shareholders' funds; Gearing is short term loans and overdrafts plus long-term liabilities divided by shareholders' funds; Interest cover is profit (loss) before interest paid divided by interest paid.

Control variables not already defined are: Growth is change in total assets; Size is total assets; and Tangibility is fixed assets divided by total assets.

The dummy variables are defined as follows: Post takes a value of 1 for observations in 2015, and 0 otherwise; and Adopt takes a value of 1 if the company adopted FRS 102 in 2015, and 0 otherwise. ***, **, * indicates significance at 1%, 5% and 10% respectively.

The focus in the model is on coefficients β3 and β4. The coefficient β3 captures the extra change in the ratio between 2014 and 2015 caused by the change in the financial statement item of the smaller medium-sized companies applying FRS102. The coefficient β4 captures the extra change in the ratio between 2014 and 2015 caused by the change in the financial statement item of the larger medium-sized companies applying FRS102. These items, from the financial statements, reflect the impact of FRS 102. In other words, each item from financial statements matches a sub-section/FRS within the FRS 102.

(E) is a certain class of companies which are expected to have changes after FRS 102, whereas (I) is a specific item from the financial statements. Therefore, item-based estimations are more accurate than those based on the certain classes of companies as a certain class of companies might have different types of transactions.

Regarding (E) the company's classes, they are as follows; companies with overseas turnover (dummy) and companies with revaluation reserves (dummy). The other independent variables are items form the financial statements.

Smaller (size) is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. The Larger (size) is a dummy variable that equals to 1 if total assets > £ 8,800,000 and equal 0 otherwise.

(Unreported) results show that there is no reclassification between operating and finance lease, namely, there is no negative correlation either between operating lease rentals and paid on lease, or between operating lease rentals and long-term lease.

R^2 of pension liabilities on Gearing is much greater than R^2 of deferred tax.

Regarding current ratio, Table 5-37 shows that smaller medium-sized companies have highly significant negative relationship with 'accruals and deferred income' item which seem to be related to holiday pay accruals. Also, the smaller companies have highly significant negative relationship with short-term group loans. Accordingly, these two items explain the reduction in current ratio for the smaller medium-sized companies. As for larger companies, there is significant positive relationship between current ratio and companies with overseas turnover. Therefore, this relationship suggests that the reason behind the increase in current ratio is the treatment of financial instruments especially foreign exchange forward contracts, as was expected. In this case we use companies with overseas turnover rather an item, as there are no relevant financial statements items available in FAME data base.

As for return on equity, smaller medium-sized companies have significant negative relationship with companies with revaluation reserves which reflect the impact of fair value accounting including revaluation of investment properties. Also, there is a highly significant positive relationship with 'accruals and deferred income' which is hard to explain although it seems to be the reason behind the increase in return on equity. As to larger companies, return on equity had highly significant negative relationship with both 'companies with revaluation reserves' and 'amortization'. The former relationship reflects the impact of fair value accounting that might include investment properties revaluation. The latter relationship represents the increase in amortization of intangible assets caused either by restriction of useful lives or/and recognizing more intangible assets, as expected after FRS 102 implementation.

In connection with Gearing, all of smaller real estate companies, smaller companies with investment property activities and smaller companies with revaluation reserves had significant negative relationships with Gearing. This could be caused by revaluation of investment properties under fair value as the revaluation surplus will increase equity and then decrease Gearing. Smaller companies also had highly significant positive relationship with pension liabilities. As for larger companies, there is significant negative relationship between Gearing and companies with overseas turnover

that might reflect the effect of financial instruments accounting under fair value. On the other hand, there are significant positive relationships between Gearing and both deferred tax and pension liabilities, as expected. Accordingly, deferred tax and pension liabilities explain the reasons behind the increase in Gearing after FRS 102.

Regarding Interest Cover, both smaller and larger medium-sized companies had significant negative relationships with all of 'amortization', 'short-term group loans' and 'companies with revaluation reserves'. It was expected to be more amortization as a result of shortening the useful lives and/or recognizing more intangible assets. There was also an impact on Interest Cover caused by short-term group loans. This is as was expected as a result of increases in interest paid which was not recognized under old UK GAAP or recognized at rates less than the market rate. Effect of companies with revaluation reserves on I Cover suggests that there are negative revaluations under fair value. Moreover, there is a highly significant relationship between Gearing and smaller real estate companies as well as significant relationship between larger companies with Investment properties and Interest Cover. 'Interest Cover' seem more sensitive for changes in P&L than return on equity as the revaluations are reflected in both Numerator and denominator when calculate return on equity.

5.5.11 Summary of the main findings of Items-based analysis: reasons behind the effect

Overall (regardless of size effect)**;**

Current ratio is negatively affected by intra group loans, and positively by non-basic financial instruments;

Return on equity is negatively affected by both amortization of intangible assets and revaluation under fair value;

Gearing is positively affected by pension and deferred tax accounting;

Interest Cover is negatively affected by all of amortization of intangible assets and revaluation under fair value as well as intra group loans accounting.

Whereas the relationships between ratios and the relevant items according to size effect are as follows;

Size effect;

Regarding smaller medium-sized companies;

Current ratio is negatively affected by 'accruals & deferred income' as well as intra group loans.

Return on equity is positively affected by accruals & deferred income, which is hard to explain. Also, it is negatively affected by revaluation under fair value.

Gearing is negatively affected by investment property accounting, and positively affected by pension liabilities.

Interest Cover is negatively affected by all of investment property accounting, amortization and intra group loans.

As for larger medium-sized companies;

Current ratio is positively affected by accounting of non-basic financial instruments;

Return on equity is negatively affected by amortization and revaluation under fair value;

Gearing is positively affected by deferred tax and pension accounting;

Interest Cover is negatively affected by investment property accounting, amortization and intra group loans, exactly as for the smaller companies.

5.6   Discussion and conclusion

FRS 102 is the cornerstone of a new financial reporting regime that represents the most significant change to UK GAAP in a generation (ICAEW, 2015a, p. 3). There are areas of key differences between old UK GAAP and FRS 102 which, in turn, expected to have impacts on financial reporting and consequently on key financial ratios (Accountancy Magazine, 2015b). The present study provides empirical evidence for this posited issue using a sample of medium-sized companies in the UK that adopted FRS 102 in 2015.

We conduct our investigation using a sample of 6430 medium size companies for the years 2014 and 2015 taken from the FAME database. We investigate the impact of the first year of compliance with FRS102 on the key financial ratios of liquidity, leverage and return using a difference in differences analysis. Firstly, we examine the effect of FRS 102 on financial ratios for specific classes of companies according to types of transactions. In other words, samples selection is due to where the effect is expected to be. Secondly, we investigate the effect of FRS 102 overall, according to company size and then according to industry. Finally, we conduct items-based analysis to link the impact on financial ratios with the relevant items from financial statements which, in turn, reflect the effect of different sections of FRS 102.

By conducting transactions-based analysis (companies likely to have similar transactions), we find that, on average, the most affected types of companies are: companies with revaluation reserves which reflect the impact of fair value revaluations, companies with overseas turnover that expected to be affected due to financial instruments accounting. Also, other affected companies are those with intangible assets that reflect the amortization treatment. Another sub-sample had impact after FRS 102 adoption, is groups companies and in particular the big groups which could be due to pension costs and intra group loans. On the other hand, unexpectedly, there were no significant for companies with investment property as well as real estate companies. Also, as expected, there was neither significant impact for capitalization choices of development costs nor lease accounting under FRS 102. Moreover, there are variations in impact between smaller and larger companies according to the transaction-based

analysis. For smaller companies, the effect seems caused by fair value accounting including investment property. While the larger companies, the findings suggest that FRS 102 effect due to fair value accounting including investment property, financial instruments accounting, amortization treatment, intra group loans and pension accounting. However, the sub-samples of transaction-based analysis are random sample from selective groups and then they are less representative for medium-sized companies population.

Afterwards, the analysis based on a large random sample from the entire population of medium-sized companies shows that there is no effect, on average, on financial ratios. However, the findings illustrate that the FRS 102 effect varies according to company size. Larger medium-sized companies show an increase in liquidity, but a reduction in return and an increase in leverage. The effect for smaller medium-sized companies is in the opposite direction: a decrease in liquidity, but an increase in return and a reduction in leverage.

The results are generally consistent with the findings in previous chapter (reconciliation statements analysis) in terms of the reductions in liquidity, profitability, Interest Cover and the increase in Gearing.

Furthermore, there were significant variations regarding the impact of FRS 102 among different industries according to different sizes. The findings pattern reveals that apart from Interest Cover that consistently shows reductions for all affected industries regardless of their sizes, there consistent contrast between smaller industries (decrease in current ratio, increase in return on equity and decrease in Gearing) and larger industries (increase in current ratio, reduction in return on equity and increase in Gearing). Manufacturing companies, in particular the large ones, have increases in current ratio compared to other industries.

Regarding the reasons behind the changes, an analysis based on items of financial statements shows that financial ratios of smaller companies are affected as follows; CR was affected by accruals &deferred income as well as intra group loans; return on equity was affected by accruals & deferred income; Gearing was affected by investment property accounting; and I Cover was affected by investment property accounting,

amortization and intra group loans. As for the larger companies, current ratio was affected by accounting of non-basic financial instruments; return on equity was affected by amortization and revaluation under fair value; Gearing was affected by deferred tax and pension accounting; and Interest Cover was affected by investment property accounting, amortization and intra group loans.

6 **<u>General conclusion</u>**

FRS 102 is the cornerstone of a new financial reporting regime that represents the most significant change to UK GAAP in a generation (ICAEW, 2015a, p. 3). There are areas of key differences between old UK GAAP and FRS 102 which, in turn, expected to have impacts on financial reporting and consequently on key financial ratios (Accountancy Magazine, 2015b). Ormrod and Taylor (2004) argue that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. The importance of this research area stems from how the application of new accounting regulation might affect financial reporting and then the decisions by the main stakeholders.

The objective of this PhD thesis is to examine the impact of FRS 102 on key financial ratios of liquidity, leverage, and return of medium-sized companies in the UK. The purpose of this is to inform different interested stakeholders, such as companies, lenders, regulators and member states of EU about the impact of the transition to FRS 102 on medium-size companies, as there is no previous evidence in this regard.

Due to the lack of the relevant literature and more specifically, there is no previous study about the impact of FRS 102 on medium-sized companies, semi-structured interviews with highly experienced practitioners have been conducted to give some insight regarding the areas of impacts after the transition from old UK GAAP to FRS 102. Additionally, the interviews help to identify the types of companies that could be affected as a result. These interviews are complementary to the limited literature to narrow down the focus of the study in terms of the areas of impact and the likely affected companies as well as to help in developing the research hypotheses. Afterward, we conduct our investigation using triangulation between two methods, which are, firstly, 'reconciliation statements' method based on the financial reports for the year prior to FRS 102 implementation. In this year, financial statements are available under both old UK GAAP and FRS 102 which give a unique opportunity to examine the impact of FRS 102. Secondly, we use the 'difference-in-differences' method using the year before and the

year after the transition to FRS 102 to achieve the same research objective. Both methods are commonly used in the research area and each method has strength and weakness. The weakness of each method is unique to that method and therefore is not replicated and, therefore, we take advantage of the using both methods as a form of 'method triangulation'. Moreover, using both methods is considered as a contribution to the present study as the previous studies in the area use only either 'reconciliation statements' method or 'difference-in-differences' method.

According to the interviews, although the overall impact of FRS 102 on financial reporting expected to be insignificant, there are variations in the impact according to types of transactions that companies might have. Transactions that are expected to have a significant impact on medium-sized companies are investment property, financial instruments, pension costs, capitalization of borrowing costs, intra group loans and deferred tax. Whereas transactions that are expected to have low/no impact on financial reporting are intangible assets, holiday pay, capitalization of development costs and leasing. Also, it is expected to be volatility in profit after the transition to FRS 102. Accordingly, the sample selection in chapter 4 (reconciliation statement-based analysis) and in the first section of analysis in chapter 5 (difference-in-differences analysis) is based on these areas of expected effect, namely, due to the type of transactions.

Chapter 4 (reconciliation statements) which compares data of financial statements for the year of transition (2014) under both old UK GAAP and FRS 102 shows that, after FRS 102 adoption, there are more recognition and different ways of measurement. Although the effects are not clearly observed for the individual sub-samples (other than investment property and intangible assets sub-samples), the overall effect of FRS 102 is significant on almost all of the tested financial ratios. Therefore, it appears that the effect on financial ratios is not dominated by a certain treatment for a specific type of transaction, but the effect seems to be caused by a collection of accounting treatments for several types of transactions. However, there are several companies with changes in Investment Properties whether in terms of revaluation under fair value with the associated deferred tax or in terms of reclassification and the associated reverse of depreciation. Also, there are several companies with changes in intangibles whether in terms of new recognition of intangibles or reclassification whether from tangible assets or between

intangible assets. Regarding the overall impact of FRS 102 adoption, all the effects on the financial ratios look undesirable and seem to have a negative impact on decision making by the users of financial statements of medium size companies. More specifically, firstly, there are declines in liquidity ratios which indicate to the ability to meet short-term financial obligations as well as assist in analyzing credit and risk decisions. Secondly, there are also decreases in profitability ratios which are considered as one of the most important ratios by the main users. Thirdly, there has also been a reduction in interest coverage ratio which is a solvency ratio that considers profitability as well as capital structure. Fourthly, there is an increase in leverage (indebtedness ratios) which indicate to the ability to meet long-term financial obligations. Moreover, there is more volatility in profits after the transition than under old UK GAAP, which is considered as an indication of risk. Furthermore, it appears that company size plays an important role in explaining the impact of FRS 102. It is clear that larger medium-sized companies were more affected than the smaller ones. This is consistent with the previous literature as the larger companies have more complex transactions and then expected to be more affected than the smaller ones.

Chapter 5, which examine the impact of FRS 102 on financial ratios before and after the transition, illustrates that, on average, the most affected types of companies are: companies with revaluation reserves which reflect the impact of fair value revaluations, companies with overseas turnover that expected to be affected due to financial instruments accounting. Also, other affected companies are those with intangible assets that reflect the amortization treatment. Another sub-sample had impact after FRS 102 adoption, is groups, and in particular, the big groups which could be due to pension costs and intra group loans. Moreover, there are variations in impact between smaller and larger companies according to the transaction-based analysis. For smaller companies, the effect seems caused by fair value accounting including investment property. While the larger companies, the findings suggest that FRS 102 effect due to fair value accounting including investment property, financial instruments accounting, amortization treatment, intra group loans and pension accounting.

Additionally, the analysis based on a large random sample from the entire population of medium-sized companies shows that there is no effect, on average, on

financial ratios. However, the findings illustrate that the FRS 102 effect varies according to company size. Larger medium-sized companies show an increase in liquidity, but a reduction in return and an increase in leverage. The effect for smaller medium-sized companies is in the opposite direction: a decrease in liquidity, but an increase in return and a reduction in leverage.

Furthermore, there are significant variations regarding the impact of FRS 102 among different industries according to different sizes. The findings pattern reveals that apart from Interest Cover that consistently shows reductions for all affected industries regardless of their sizes, there is consistent contrast between smaller industries (decrease in current ratio, increase in return on equity and decrease in Gearing) and larger industries (increase in current ratio, reduction in return on equity and increase in Gearing). Manufacturing companies, in particular, the larger ones have increases in current ratio compared to other industries.

Regarding the reasons behind the changes, an analysis based on items of financial statements shows that financial ratios of smaller companies are affected as follows; current ratio is affected by accruals &deferred income as well as intra group loans; return on equity is affected by accruals & deferred income; Gearing was affected by investment property accounting; and Interest Cover is affected by investment property accounting, amortization and intra group loans. As for the larger companies, current ratio was affected by the accounting of non-basic financial instruments; return on equity was affected by amortization and revaluation under fair value; Gearing was affected by deferred tax and pension accounting, and Interest Cover is affected by investment property accounting, amortization and intra group loans.

To sum up, from the sample based on the entire population of medium size companies, the smaller companies have less liquidity but better performance and less risk. This consequently, might create more tax to pay. As for the larger companies have greater liquidity but poorer performance and more risk. This consequently, might make it more difficult to borrow more money from banks and/or might affect the debt covenants. Regarding companies that more likely to have similar transactions, they have less liquidity, less performance and more risk as well as more volatility in profits.

Accordingly, the image of this group of companies seems worsened. This might affect the relationship with the main stakeholders especially banks. In terms of industry effect, the findings suggest that the effect of FRS 102 spreads across different industries, and some industries look better than others. Finally, the reasons behind the changes are fair value accounting of investment property and financial instruments as well as the treatments of amortization, pension liabilities, deferred tax and group loans.

Rating agencies, such Fitch Investors Service, and Moody's and Standard and Poor's (according to Reilly and Brown, 2006, pp. 656-8; Bodie et al., 2005, pp. 471-3, as cited in Paulo, 2010, p. 474) make use of cash flows, interest coverage ratios, leverage ratios, liquidity ratios, and profitability ratios as prime determinants of ability to pay interest charges and redeem debt (Paulo, 2010). Regarding the expected economic consequences of FRS 102, Accountancy Magazine (2014) illustrates that perhaps the biggest and most troubling effect of any change in accounting policies is the impact that they can have on compliance with bank covenants. Covenants written into loan agreements will often have basic quantitative tests to be met. Common ratios used in this regard, are liquidity ratio, interest cover or a basic requirement to be profitable. For a company that has previously been close to the wire on its covenant compliance, small changes in recognition and/or measurement requirements could have a critical effect on financial ratios (Accountancy Magazine, 2014, p. 51-52). Also, Accountancy Magazine (2015b, p. 62) demonstrates that fair value movements, under FRS 102, might impact calculation of key financial ratios and covenants. Our findings suggest that the image of larger medium-sized companies have been worsened, and this, in turn, might affect the relationships with lenders.

Why does it matter? (Accountancy, 2014, p. 51-53), clarifies how many stakeholders in a company's financial statements view the sorts of changes that will arise from applying FRS 102 for the first time; shareholders "they not only need to understand why reported figures might have changed, they also must have the opportunity to see what the knock-on effects could be from the effect on the other stakeholders". Shareholders "are likely to be particularly interested in the overall effect as well as the individual details". Banks "small changes might have critical effects on financial ratios and then on debt covenants". Government "the clearest effect is in terms of tax take".

Employees "if they are part of a bonus scheme that is linked to results". Suppliers "they take the opportunity to revisit their customer acceptance procedures at the same time as they refresh their own financial reporting". Competitors "it is a practical fact that preparers will have an eye on to how their choices align with those of their competitors". Furthermore, the findings will be of interest to the member states of EU that might consider following (or not to follow) the UK as a first case that amended and applied IFRS for SMEs which is not permitted, to be adopted as it is, according to the incompatibilities with EU Accounting Directive.

The present study contributes to the relevant literature (Callao et al., 2007; Asbitt, 2006; Stenka et al., 2008; Gastón et al., 2010; Lantto et al., 2009; Tsalavoutas and Evans, 2010 and Pálka and Svitáková, 2011) in terms of how changes in accounting regulations affect the way in which performance is reported, and how key financial ratios, which might have impacts on contractual obligations, could be affected. Ormrod and Taylor (2004) argue that the change in accounting standards could have unexpected consequences for reported figures that were unrelated to changes in the company's circumstances. This research area is underrepresented in the academic literature for SMEs and more specifically for medium-sized companies. Moreover, there is no previous evidence about the impact of FRS 102 on financial reporting. Also, the findings are inconsistent with the Anglo-Saxon debate which suggests that UK companies are not expected to be affected by international accounting standards as they have a similar environment where these standards have been established. Another contribution is in terms of the research methodology, as two commonly used methods have been triangulated to achieve the same aim and to give the whole picture of the FRS 102 implementation on medium-sized companies. This is considered as a contribution, as there is no previous study has conducted such triangulation. Furthermore, the findings of this study, after FRS 102 adoption, will give feedback to the regulators especially in the review of the standard as well as being of interest to the main users of financial statements of medium-sized companies regarding the recognizing and understanding the effect of the changes after the transition to FRS 102.

Limitations

Although transition-based analysis (companies likely to have similar transactions) attempts to capture where the FRS 102 effects might be, in chapter 4 it could be less representative as there might be overlapping between the sub-samples being randomly selected but from purposively selected groups of companies. Also, as the data are hand-collected, the total sample or the sub-samples in chapter 4 may be small relative to the entire population of medium size companies. Regarding the difference-in-differences method in chapter 5, although we use a large sample which is more representative for the population of medium size companies, there is the economic effect, between the years before and after the transition, that we need to control for. Another issue is the lack of academic literature for medium-sized companies, which is from a different angle could be considered as a research gap that this study attempts to fill.

Further research

It might be interesting to conduct further research about the impact of FRS 102 in the following points:

- Using a larger sample using reconciliation statements method and investigate the reasons behind the change from the actual accounts.

- Examining the economic consequences such as the impact on the capital structure, cost of capital, debt covenants and credit rating.

- Examining accounting quality and compare with the findings of Liu and Skerratt (2015) that show that medium-sized companies have the lowest level of accounting quality among all different classes of companies in the UK.

- Examining some of the qualitative characteristics such as comparability and harmonization which are among the main objectives of the regulator (the FRC).

- Repeating the same method in chapter 5 (DID) using a longer period of time.

- Conducting a qualitative investigation about the benefit-cost assessment of FRS 102.

- Conducting a more in-depth investigation about a specific area which was found with significant effects in this study such as fair value accounting, deferred tax or/and pension accounting.

Appendix 1: Test of normality and Ranks of Wilcoxon Signed Ranks Test

Table 1.1: Test of normality of investment property sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.348	40	.000	.466	40	.000
Current Ratio (FRS 102)	.342	40	.000	.472	40	.000
Quick Ratio (old GAAP)	.325	40	.000	.479	40	.000
Quick Ratio (FRS 102)	.319	40	.000	.480	40	.000
Return on assets (old GAAP)	.189	40	.001	.775	40	.000
Return on asset (FRS 102)	.215	40	.000	.805	40	.000
Return on Equity (old GAAP)	.190	40	.001	.900	40	.002
Return on Equity (FRS 102)	.177	40	.003	.882	40	.001
Total liability on total assets (old GAAP)	.072	40	.200	.970	40	.360
Total liability on total assets (FRS 102)	.092	40	.200	.944	40	.048
Total liability on Equity (old GAAP)	.288	40	.000	.635	40	.000
Total liability on Equity (FRS 102)	.336	40	.000	.545	40	.000
Interest Cover (old GAAP)	.301	31	.000	.605	31	.000
Interest Cover (FRS 102)	.328	31	.000	.582	31	.000

Table 1.1.1: Ranks of Wilcoxon Signed Ranks Test of investment property sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	11[a]	8.73	96.00
	Positive Ranks	4[b]	6.00	24.00
	Ties	25[c]		
	Total	40		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	11[d]	8.55	94.00
	Positive Ranks	5[e]	8.40	42.00
	Ties	24[f]		
	Total	40		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	12[g]	16.42	197.00
	Positive Ranks	14[h]	11.00	154.00
	Ties	14[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	10[j]	16.65	166.50
	Positive Ranks	18[k]	13.31	239.50
	Ties	12[l]		
	Total	40		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	8[m]	14.69	117.50
	Positive Ranks	22[n]	15.80	347.50
	Ties	10[o]		
	Total	40		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	8[p]	16.13	129.00
	Positive Ranks	21[q]	14.57	306.00
	Ties	11[r]		
	Total	40		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	9[s]	9.67	87.00
	Positive Ranks	8[t]	8.25	66.00
	Ties	14[u]		
	Total	31		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.2: Test of normality of Financial instruments sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.230	40	.000	.777	40	.000
Current Ratio (FRS 102)	.257	40	.000	.751	40	.000
Quick Ratio (old GAAP)	.249	40	.000	.716	40	.000
Quick Ratio (FRS 102)	.250	40	.000	.681	40	.000
Return on assets (old GAAP)	.209	40	.000	.859	40	.000
Return on asset (FRS 102)	.208	40	.000	.865	40	.000
Return on Equity (old GAAP)	.355	40	.000	.446	40	.000
Return on Equity (FRS 102)	.334	40	.000	.461	40	.000
Total liability on total assets (old GAAP)	.089	40	.200	.964	40	.228
Total liability on total assets (FRS 102)	.091	40	.200	.962	40	.200
Total liability on Equity (old GAAP)	.426	40	.000	.500	40	.000
Total liability on Equity (FRS 102)	.423	40	.000	.504	40	.000
I Coverage (old GAAP)	.315	25	.000	.661	25	.000
I Coverage (FRS 102)	.315	25	.000	.621	25	.000
Interest Cover (old GAAP)	*.350*	*40*	*.000*	*.654*	*40*	*.000*
Interest Cover (FRS 102)	*.350*	*40*	*.000*	*.604*	*40*	*.000*

Table 1.2.1: Ranks of Wilcoxon Signed Ranks Test of Financial instruments sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	6[a]	4.00	24.00
	Positive Ranks	2[b]	6.00	12.00
	Ties	32[c]		
	Total	40		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	6[d]	4.17	25.00
	Positive Ranks	2[e]	5.50	11.00
	Ties	32[f]		
	Total	40		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	6[g]	3.83	23.00
	Positive Ranks	3[h]	7.33	22.00
	Ties	31[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	5[j]	3.30	16.50
	Positive Ranks	3[k]	6.50	19.50
	Ties	32[l]		
	Total	40		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	1[m]	7.00	7.00
	Positive Ranks	6[n]	3.50	21.00
	Ties	33[o]		
	Total	40		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	2[p]	6.50	13.00
	Positive Ranks	7[q]	4.57	32.00
	Ties	31[r]		
	Total	40		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	4[s]	2.75	11.00
	Positive Ranks	2[t]	5.00	10.00
	Ties	19[u]		
	Total	25		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.3: Test of normality of borrowing cost sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.232	40	.000	.711	40	.000
Current Ratio (FRS 102)	.230	40	.000	.709	40	.000
Quick Ratio (old GAAP)	.221	40	.000	.698	40	.000
Quick Ratio (FRS 102)	.206	40	.000	.672	40	.000
Return on assets (old GAAP)	.162	40	.010	.838	40	.000
Return on asset (FRS 102)	.161	40	.010	.838	40	.000
Return on Equity (old GAAP)	.467	40	.000	.211	40	.000
Return on Equity (FRS 102)	.467	40	.000	.211	40	.000
Total liability on total assets (old GAAP)	.097	40	.200	.983	40	.792
Total liability on total assets (FRS 102)	.079	40	.200	.984	40	.847
Total liability on Equity (old GAAP)	.521	40	.000	.197	40	.000
Total liability on Equity (FRS 102)	.521	40	.000	.197	40	.000
Interest Cover (old GAAP)	*.279*	*40*	*.000*	*.718*	*40*	*.000*
Interest Cover (FRS 102)	*.280*	*40*	*.000*	*.717*	*40*	*.000*

Table 1.3.1: Ranks of Wilcoxon Signed Ranks Test of borrowing cost sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	3[a]	2.67	8.00
	Positive Ranks	2[b]	3.50	7.00
	Ties	35[c]		
	Total	40		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	2[d]	2.50	5.00
	Positive Ranks	2[e]	2.50	5.00
	Ties	36[f]		
	Total	40		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	4[g]	2.75	11.00
	Positive Ranks	1[h]	4.00	4.00
	Ties	35[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	2[j]	3.50	7.00
	Positive Ranks	3[k]	2.67	8.00
	Ties	35[l]		
	Total	40		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	2[m]	3.25	6.50
	Positive Ranks	4[n]	3.63	14.50
	Ties	34[o]		
	Total	40		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	1[p]	1.00	1.00
	Positive Ranks	5[q]	4.00	20.00
	Ties	34[r]		
	Total	40		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	2[s]	2.00	4.00
	Positive Ranks	1[t]	2.00	2.00
	Ties	24[u]		
	Total	27		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.4: Test of normality of Leasing sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.147	40	.029	.924	40	.010
Current Ratio (FRS 102)	.177	40	.003	.911	40	.004
Quick Ratio (old GAAP)	.201	40	.000	.891	40	.001
Quick Ratio (FRS 102)	.202	40	.000	.877	40	.000
Return on assets (old GAAP)	.173	40	.004	.853	40	.000
Return on asset (FRS 102)	.175	40	.003	.853	40	.000
Return on Equity (old GAAP)	.184	40	.002	.889	40	.001
Return on Equity (FRS 102)	.189	40	.001	.895	40	.001
Total liability on total assets (old	.375	40	.000	.285	40	.000
Total liability on total assets (FRS 102)	.378	40	.000	.279	40	.000
Total liability on Equity (old GAAP)	.392	40	.000	.443	40	.000
Total liability on Equity (FRS 102)	.379	40	.000	.485	40	.000
Interest Cover (old GAAP)	*.325*	*40*	*.000*	*.642*	*40*	*.000*
Interest Cover (FRS 102)	*.325*	*40*	*.000*	*.607*	*40*	*.000*

Table 1.4.1: Ranks of Wilcoxon Signed Ranks Test of Leasing sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	9[a]	6.17	55.50
	Positive Ranks	4[b]	8.88	35.50
	Ties	27[c]		
	Total	40		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	8[d]	6.50	52.00
	Positive Ranks	5[e]	7.80	39.00
	Ties	27[f]		
	Total	40		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	8[g]	8.44	67.50
	Positive Ranks	6[h]	6.25	37.50
	Ties	26[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	8[j]	10.13	81.00
	Positive Ranks	8[k]	6.88	55.00
	Ties	24[l]		
	Total	40		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	5[m]	12.80	64.00
	Positive Ranks	13[n]	8.23	107.00
	Ties	22[o]		
	Total	40		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	5[p]	13.00	65.00
	Positive Ranks	13[q]	8.15	106.00
	Ties	22[r]		
	Total	40		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	5[s]	7.40	37.00
	Positive Ranks	6[t]	4.83	29.00
	Ties	25[u]		
	Total	36		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.5: Test of normality of development costs sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.247	40	.000	.767	40	.000
Current Ratio (FRS 102)	.233	40	.000	.764	40	.000
Quick Ratio (old GAAP)	.186	40	.001	.744	40	.000
Quick Ratio (FRS 102)	.182	40	.002	.763	40	.000
Return on assets (old GAAP)	.116	40	.193	.944	40	.047
Return on asset (FRS 102)	.102	40	.200	.945	40	.053
Return on Equity (old GAAP)	.167	40	.007	.965	40	.248
Return on Equity (FRS 102)	.191	40	.001	.774	40	.000
Total liability on total assets (old GAAP)	.084	40	.200	.942	40	.040
Total liability on total assets (FRS 102)	.096	40	.200	.944	40	.046
Total liability on Equity (old GAAP)	.316	40	.000	.384	40	.000
Total liability on Equity (FRS 102)	.348	40	.000	.322	40	.000
Interest Cover (old GAAP)	*.300*	*40*	*.000*	*.753*	*40*	*.000*
Interest Cover (FRS 102)	*.300*	*40*	*.000*	*.777*	*40*	*.000*

Table 1.5.1: Ranks of Wilcoxon Signed Ranks Test of development costs sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	14[a]	10.32	144.50
	Positive Ranks	4[b]	6.63	26.50
	Ties	22[c]		
	Total	40		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	14[d]	10.21	143.00
	Positive Ranks	4[e]	7.00	28.00
	Ties	22[f]		
	Total	40		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	15[g]	10.43	156.50
	Positive Ranks	4[h]	8.38	33.50
	Ties	21[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	14[j]	11.68	163.50
	Positive Ranks	7[k]	9.64	67.50
	Ties	19[l]		
	Total	40		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	6[m]	8.08	48.50
	Positive Ranks	14[n]	11.54	161.50
	Ties	20[o]		
	Total	40		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	5[p]	9.40	47.00
	Positive Ranks	14[q]	10.21	143.00
	Ties	21[r]		
	Total	40		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	7[s]	5.29	37.00
	Positive Ranks	4[t]	7.25	29.00
	Ties	15[u]		
	Total	26		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.6: Test of normality of pension costs and intra group loans sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.191	41	.001	.795	41	.000
Current Ratio (FRS 102)	.193	41	.001	.794	41	.000
Quick Ratio (old GAAP)	.164	41	.007	.847	41	.000
Quick Ratio (FRS 102)	.166	41	.006	.834	41	.000
Return on assets (old GAAP)	.255	41	.000	.754	41	.000
Return on asset (FRS 102)	.257	41	.000	.751	41	.000
Return on Equity (old GAAP)	.251	41	.000	.600	41	.000
Return on Equity (FRS 102)	.247	41	.000	.591	41	.000
Total liability on total assets (old GAAP)	.205	41	.000	.842	41	.000
Total liability on total assets (FRS 102)	.211	41	.000	.844	41	.000
Total liability on Equity (old GAAP)	.404	41	.000	.287	41	.000
Total liability on Equity (FRS 102)	.405	41	.000	.277	41	.000
Interest Cover (old GAAP)	.281	32	.000	.590	32	.000
Interest Cover (FRS 102)	.299	32	.000	.616	32	.000

Table 1.6.1: Ranks of Wilcoxon Signed Ranks Test of pension costs and intra group loans sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	12[a]	6.50	78.00
	Positive Ranks	1[b]	13.00	13.00
	Ties	28[c]		
	Total	41		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	12[d]	6.50	78.00
	Positive Ranks	1[e]	13.00	13.00
	Ties	28[f]		
	Total	41		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	6[g]	7.75	46.50
	Positive Ranks	7[h]	6.36	44.50
	Ties	28[i]		
	Total	41		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	4[j]	7.38	29.50
	Positive Ranks	9[k]	6.83	61.50
	Ties	28[l]		
	Total	41		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	2[m]	7.50	15.00
	Positive Ranks	11[n]	6.91	76.00
	Ties	28[o]		
	Total	41		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	4[p]	9.50	38.00
	Positive Ranks	10[q]	6.70	67.00
	Ties	27[r]		
	Total	41		
I Coverage2 - I Coverage1	Negative Ranks	6[s]	7.50	45.00
	Positive Ranks	6[t]	5.50	33.00
	Ties	21[u]		
	Total	33		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.7: Test of normality of intangible assets sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.337	40	.000	.485	40	.000
Current Ratio (FRS 102)	.334	40	.000	.531	40	.000
Quick Ratio (old GAAP)	.282	40	.000	.593	40	.000
Quick Ratio (FRS 102)	.282	40	.000	.631	40	.000
Return on assets (old GAAP)	.282	40	.000	.688	40	.000
Return on asset (FRS 102)	.273	40	.000	.700	40	.000
Return on Equity (old GAAP)	.463	40	.000	.193	40	.000
Return on Equity (FRS 102)	.346	40	.000	.510	40	.000
Total liability on total assets (old GAAP)	.110	40	.200	.949	40	.072
Total liability on total assets (FRS 102)	.124	40	.121	.944	40	.046
Total liability on Equity (old GAAP)	.494	40	.000	.178	40	.000
Total liability on Equity (FRS 102)	.424	40	.000	.340	40	.000
Interest Cover (old GAAP)	.357	38	.000	.435	38	.000
Interest Cover (FRS 102)	.382	38	.000	.417	38	.000

Table 1.7.1: Ranks of Wilcoxon Signed Ranks Test of intangible assets sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	11[a]	8.09	89.00
	Positive Ranks	4[b]	7.75	31.00
	Ties	25[c]		
	Total	40		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	11[d]	8.05	88.50
	Positive Ranks	4[e]	7.88	31.50
	Ties	25[f]		
	Total	40		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	10[g]	8.20	82.00
	Positive Ranks	6[h]	9.00	54.00
	Ties	24[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	8[j]	11.63	93.00
	Positive Ranks	11[k]	8.82	97.00
	Ties	21[l]		
	Total	40		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	3[m]	6.00	18.00
	Positive Ranks	16[n]	10.75	172.00
	Ties	21[o]		
	Total	40		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	5[p]	8.40	42.00
	Positive Ranks	17[q]	12.41	211.00
	Ties	18[r]		
	Total	40		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	11[s]	7.82	86.00
	Positive Ranks	6[t]	11.17	67.00
	Ties	21[u]		
	Total	38		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.8: Test of normality of amortization sub-sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio old GAAP	.257	40	.000	.825	40	.000
Current Ratio FRS 102	.247	40	.000	.823	40	.000
Quick Ratio old GAAP	.255	40	.000	.818	40	.000
Quick Ratio FRS 102	.250	40	.000	.816	40	.000
Return on assets old GAAP	.108	40	.200	.967	40	.296
Return on asset FRS 102	.141	40	.044	.928	40	.014
Return on Equity old GAAP	.310	40	.000	.617	40	.000
Return on Equity FRS 102	.322	40	.000	.638	40	.000
Total liability on total assets old GAAP	.091	40	.200	.988	40	.933
Total liability on total assets FRS 102	.103	40	.200	.979	40	.646
Total liability on Equity old GAAP	.321	40	.000	.505	40	.000
Total liability on Equity FRS 102	.326	40	.000	.513	40	.000
Interest Cover (old GAAP)	.426	38	.000	.418	38	.000
Interest Cover (FRS 102)	.491	38	.000	.369	38	.000

Table 1.8.1: Ranks of Wilcoxon Signed Ranks Test of amortization sub-sample

		N	Mean Rank	Sum of Ranks
Current Ratio FRS 102 - Current Ratio old GAAP	Negative Ranks	5[a]	8.40	42.00
	Positive Ranks	6[b]	4.00	24.00
	Ties	29[c]		
	Total	40		
Quick Ratio FRS 102 - Quick Ratio old GAAP	Negative Ranks	5[d]	7.90	39.50
	Positive Ranks	6[e]	4.42	26.50
	Ties	29[f]		
	Total	40		
Return on asset FRS 102 - Return on assets old GAAP	Negative Ranks	6[g]	10.33	62.00
	Positive Ranks	7[h]	4.14	29.00
	Ties	27[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	3[j]	7.00	21.00
	Positive Ranks	7[k]	4.86	34.00
	Ties	30[l]		
	Total	40		
Total liability on total assets FRS 102 - Total liability on total assets old GAAP	Negative Ranks	6[m]	6.17	37.00
	Positive Ranks	7[n]	7.71	54.00
	Ties	27[o]		
	Total	40		
Total liability on Equity FRS 102 - Total liability on Equity old GAAP	Negative Ranks	3[p]	5.67	17.00
	Positive Ranks	8[q]	6.13	49.00
	Ties	29[r]		
	Total	40		
Interest coverage FRS 102 - Interest coverage old GAAP	Negative Ranks	4[s]	5.25	21.00
	Positive Ranks	4[t]	3.75	15.00
	Ties	30[u]		
	Total	38		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.9: Test of normality of the sub-sample of deferred tax on land and buildings

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.177	40	.003	.856	40	.000
Current Ratio (FRS 102)	.146	40	.032	.862	40	.000
Quick Ratio (old GAAP)	.183	40	.002	.880	40	.001
Quick Ratio (FRS 102)	.170	40	.005	.888	40	.001
Return on assets (old GAAP)	.213	40	.000	.816	40	.000
Return on asset (FRS 102)	.201	40	.000	.832	40	.000
Return on Equity (old GAAP)	.188	40	.001	.889	40	.001
Return on Equity (FRS 102)	.176	40	.003	.924	40	.010
Total liability on total assets (old GAAP)	.248	40	.000	.673	40	.000
Total liability on total assets (FRS) 102)	.250	40	.000	.678	40	.000
Total liability on Equity (old GAAP)	.288	40	.000	.427	40	.000
Total liability on Equity (FRS 102)	.286	40	.000	.434	40	.000
Interest Cover (old GAAP)	*.425*	*40*	*.000*	*.221*	*40*	*.000*
Interest Cover (FRS 102)	*.425*	*40*	*.000*	*.216*	*40*	*.000*

Table 1.9.1: Ranks of Wilcoxon Signed Ranks Test of the sub-sample of deferred tax on land and buildings

		N	Mean Rank	Sum of Ranks
Current Ratio FRS 102 - Current Ratio old GAAP	Negative Ranks	6[a]	4.67	28.00
	Positive Ranks	2[b]	4.00	8.00
	Ties	32[c]		
	Total	40		
Quick Ratio FRS 102 - Quick Ratio old GAAP	Negative Ranks	6[d]	4.83	29.00
	Positive Ranks	3[e]	5.33	16.00
	Ties	31[f]		
	Total	40		
Return on asset FRS 102 - Return on assets old GAAP	Negative Ranks	7[g]	5.50	38.50
	Positive Ranks	3[h]	5.50	16.50
	Ties	30[i]		
	Total	40		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	6[j]	7.00	42.00
	Positive Ranks	6[k]	6.00	36.00
	Ties	28[l]		
	Total	40		
Total liability on total assets FRS 102 - Total liability on total assets old GAAP	Negative Ranks	2[m]	2.75	5.50
	Positive Ranks	8[n]	6.19	49.50
	Ties	30[o]		
	Total	40		
Total liability on Equity FRS 102 - Total liability on Equity old GAAP	Negative Ranks	1[p]	2.00	2.00
	Positive Ranks	10[q]	6.40	64.00
	Ties	29[r]		
	Total	40		
Interest coverage FRS 102 - Interest coverage old GAAP	Negative Ranks	8[s]	8.25	66.00
	Positive Ranks	5[t]	5.00	25.00
	Ties	23[u]		
	Total	36		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.10: Test of normality of Water companies sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.307	7	.044	.787	7	.031
Current Ratio (FRS 102)	.306	7	.047	.789	7	.032
Quick Ratio (old GAAP)	.357	7	.007	.666	7	.002
Quick Ratio (FRS 102)	.355	7	.008	.666	7	.002
Return on assets (old GAAP)	.138	7	.200	.973	7	.919
Return on asset (FRS 102)	.132	7	.200	.971	7	.903
Return on Equity (old GAAP)	.151	7	.200	.967	7	.875
Return on Equity (FRS 102)	.139	7	.200	.969	7	.891
Total liability on total assets (old GAAP)	.230	7	.200	.894	7	.295
Total liability on total assets (FRS 102)	.222	7	.200	.886	7	.253
Total liability on Equity (old GAAP)	.314	7	.036	.834	7	.087
Total liability on Equity (FRS 102)	.316	7	.033	.818	7	.061
Interest Cover (old GAAP)	.175	6	.200	.965	6	.854
Interest Cover (FRS 102)	.171	6	.200	.968	6	.876

Table 1.10.1: Ranks of Wilcoxon Signed Ranks Test of Water companies sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	2[a]	1.50	3.00
	Positive Ranks	0[b]	.00	.00
	Ties	5[c]		
	Total	7		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	2[d]	1.50	3.00
	Positive Ranks	0[e]	.00	.00
	Ties	5[f]		
	Total	7		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	2[g]	3.25	6.50
	Positive Ranks	2[h]	1.75	3.50
	Ties	3[i]		
	Total	7		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	3[j]	2.00	6.00
	Positive Ranks	0[k]	.00	.00
	Ties	4[l]		
	Total	7		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	1[m]	3.00	3.00
	Positive Ranks	2[n]	1.50	3.00
	Ties	4[o]		
	Total	7		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	1[p]	3.00	3.00
	Positive Ranks	2[q]	1.50	3.00
	Ties	4[r]		
	Total	7		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	3[s]	2.00	6.00
	Positive Ranks	0[t]	.00	.00
	Ties	3[u]		
	Total	6		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Table 1.11: Test of normality for the total sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Current Ratio (old GAAP)	.200	368	.000	.664	368	.000
Current Ratio (FRS 102)	.197	368	.000	.670	368	.000
Quick Ratio (old GAAP)	.212	368	.000	.677	368	.000
Quick Ratio (FRS 102)	.206	368	.000	.675	368	.000
Return on assets (old GAAP)	.187	368	.000	.802	368	.000
Return on asset (FRS 102)	.173	368	.000	.811	368	.000
Return on Equity (old GAAP)	.413	368	.000	.104	368	.000
Return on Equity (FRS 102)	.416	368	.000	.086	368	.000
Total liability on total assets (old GAAP)	.222	368	.000	.364	368	.000
Total liability on total assets (FRS 102)	.218	368	.000	.357	368	.000
Total liability on Equity (old GAAP)	.462	368	.000	.072	368	.000
Total liability on Equity (FRS 102)	.437	368	.000	.151	368	.000
Interest Cover (old GAAP)	.458	306	.000	.111	306	.000
Interest Cover (FRS 102)	.458	306	.000	.109	306	.000

Table 1.11.1: Ranks of Wilcoxon Signed Ranks Test of the total sample

		N	Mean Rank	Sum of Ranks
Current Ratio (FRS 102) - Current Ratio (old GAAP)	Negative Ranks	78[a]	53.69	4188.00
	Positive Ranks	28[b]	52.96	1483.00
	Ties	262[c]		
	Total	368		
Quick Ratio (FRS 102) - Quick Ratio (old GAAP)	Negative Ranks	76[d]	53.53	4068.00
	Positive Ranks	31[e]	55.16	1710.00
	Ties	261[f]		
	Total	368		
Return on assets (FRS 102) - Return on asset (old GAAP)	Negative Ranks	77[g]	69.79	5374.00
	Positive Ranks	51[h]	56.51	2882.00
	Ties	240[i]		
	Total	368		
Return on Equity (FRS 102) - Return on Equity (old GAAP)	Negative Ranks	63[j]	75.74	4771.50
	Positive Ranks	72[k]	61.23	4408.50
	Ties	233[l]		
	Total	368		
Total liability on total assets (FRS 102) - Total liability on total assets (old GAAP)	Negative Ranks	36[m]	64.79	2332.50
	Positive Ranks	104[n]	72.48	7537.50
	Ties	228[o]		
	Total	368		
Total liability on Equity (FRS 102) - Total liability on Equity (old GAAP)	Negative Ranks	35[p]	74.29	2600.00
	Positive Ranks	108[q]	71.26	7696.00
	Ties	225[r]		
	Total	368		
Interest Cover (FRS 102) - Interest Cover (old GAAP)	Negative Ranks	59[s]	52.93	3123.00
	Positive Ranks	43[t]	49.53	2130.00
	Ties	204[u]		
	Total	306		

a. Ratio under FRS 102 < Ratio under old UK GAAP

b. Ratio under FRS 102 > Ratio under old UK GAAP

c. Ratio under FRS 102 = Ratio under old UK GAAP

Appendix 2:

Outline:

1. Transaction-based analysis: Overall effect
2. Transactions-based analysis: Size effect
3. Items-based analysis (Sub-sections of FRS 102): Overall effect
4. Items-based analysis (Sub-sections of FRS 102): Size effect

1. Transaction-based analysis: Overall effect

1.1 Companies with Investment properties activities[*]:

1.1.1 Current Ratio (CR)

Number of observations = 10,903   -   Prob > F = 0.0000   -   R-squared = 0.0567

Table 1.1.1: Impact of FRS 102 on CR of investment properties companies

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.007664	.0516105	0.15	0.882	-.0935019	.1088299
Adopt	-.0470882	.0520444	-0.90	0.366	-.1491046	.0549282
β3 Post*Adopt*IP activity	**.2294791**	.427942	0.54	**0.592**	-.6093649	1.068323
ROE	-.0019976	.0003113	-6.42	0.000	-.0026078	-.0013875
Gearing	-.0042225	.0001505	-28.05	0.000	-.0045175	-.0039274
Growth	-.0002743	.0007665	-0.36	0.720	-.0017769	.0012282
Size	6.26e-09	2.54e-09	2.47	0.014	1.29e-09	1.12e-08
_cons	2.696769	.0602234	44.78	0.000	2.57872	2.814818

* According to trade description in FAME data base. A dummy variable which equals to 1 if an company has IP activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.1 Companies with Investment properties activities[*]:

1.1.2 Return on Equity (ROE)

Number of observations = 11,553 - Prob > F = 0.0000 - R-squared = 0.0101

Table 1.1.2: Impact of FRS 102 on ROE of investment properties companies

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-3.248618	1.386057	-2.34	0.019	-5.965525	-.5317108
Adopt	2.105045	1.361204	1.55	0.122	-.5631449	4.773235
β3 Post*Adopt*IP activity	**2.455521**	3.678336	0.67	**0.504**	-4.754641	9.665682
CR	-.7304834	.3103572	-2.35	0.019	-1.338836	-.1221308
Growth	.1698698	.0234747	7.24	0.000	.1238555	.2158842
_cons	22.742	1.537311	14.79	0.000	19.72861	25.75539

* According to trade description in FAME data base. A dummy variable which equals to 1 if an company has IP activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.1 Companies with Investment properties activities[*]:

1.1.3 Gearing

Number of observations = 10,935   -   Prob > F = 0.0000   -   R-squared = 0.0570

Table 1.1.3: Impact of FRS 102 on Gearing of investment properties companies

Gearing	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.9266345	2.602533	-0.36	0.722	-6.028071	4.174802
Adopt	27.14024	2.809668	9.66	0.000	21.63278	32.6477
β3 Post*Adopt*IP activity	**18.00742**	29.92056	0.60	**0.547**	-40.6423	76.65713
CR	-10.59594	1.022287	-10.36	0.000	-12.59981	-8.592076
Size	1.53e-07	5.98e-08	2.56	0.011	3.57e-08	2.70e-07
Tangibility	13.15713	4.960883	2.65	0.008	3.432906	22.88136
Growth	.1365938	.0487754	2.80	0.005	.0409852	.2322025
_cons	86.67353	4.414019	19.64	0.000	78.02125	95.32581

* According to trade description in FAME data base. A dummy variable which equals to 1 if an company has IP activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.1 Companies with Investment properties activities[*]:

1.1.4 Interest Cover (I Cover)

Number of observations = 8,126   -   Prob > F = 0.0000   -   R-squared = 0.0120

Table 1.1.4: Impact of FRS 102 on I Cover of investment properties companies

I Cover	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.1429681	2.851964	0.05	0.960	-5.447614	5.73355
Adopt	-.169536	2.988676	-0.06	0.955	-6.028109	5.689037
β3 Post*Adopt*IP activity	**-4.19653**	27.22482	-0.15	**0.878**	-57.56417	49.17111
Growth	.2352024	.0550727	4.27	0.000	.1272457	.3431591
Size	-6.59e-08	2.23e-08	-2.96	0.003	-1.09e-07	-2.22e-08
Industry	Included					
_cons	91.71357	21.38027	4.29	0.000	49.80276	133.6244

* According to trade description in FAME data base. A dummy variable which equals to 1 if an company has IP activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.2 Real Estate companies

1.2.1 Current ratio (CR)

Number of observations = 11,048 - Prob > F = 0.0000 - R-squared = 0.0540

Table 1.2.1: Impact of FRS 102 on CR of Real Estate companies

CR	Robust					
	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0090513	.0512068	0.18	0.860	-.0913232	.1094259
Adopt	-.0459576	.051954	-0.88	0.376	-.1477968	.0558816
β3 Post*Adopt*Real Estate companies	**.0273377**	.2733005	0.10	**0.920**	-.5083803	.5630556
ROE	-.0019979	.0003074	-6.50	0.000	-.0026004	-.0013953
Gearing	-.0041643	.0001451	-28.70	0.000	-.0044488	-.0038799
Size	4.57e-09	1.94e-09	2.35	0.019	7.60e-10	8.38e-09
_cons	2.711298	.0567954	47.74	0.000	2.599968	2.822627

Notes: According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate Companies is a dummy variable which equals to 1 if an company has the aforementioned codes and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.2 Real Estate companies

1.2.2 Return on Equity (ROE)

Number of observations = 11,553 - Prob > F = 0.0000 - R-squared = 0.0115

Table 1.2.2: Impact of FRS 102 on ROE of Real Estate companies

ROE	Robust					
	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-3.188423	1.384923	-2.30	0.021	-5.903107	-.4737392
Adopt	2.292522	1.358888	1.69	0.092	-.3711282	4.956172
β3 Post*Adopt*Real Estate companies	**2.233091**	3.501081	0.64	**0.524**	-4.629621	9.095804
CR	-.6458009	.3108719	-2.08	0.038	-1.255162	-.0364394
Growth	.1717775	.0234636	7.32	0.000	.1257849	.2177702
Size	-6.14e-08	2.48e-08	-2.48	0.013	-1.10e-07	-1.28e-08
_cons	23.2956	1.55392	14.99	0.000	20.24965	26.34155

Notes: According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate Companies is a dummy variable which equals to 1 if an company has the aforementioned codes and 0 otherwise. Company excluded if it is not a Real Estate company. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.2 Real Estate companies

1.2.3 Gearing

Number of observations =10,935 - Prob > F = 0.0000 - R-squared = 0.0570

Table 1.2.3: Impact of FRS 102 on Gearing of Real Estate companies

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.9527394	2.602177	-0.37	0.714	-6.053478	4.147999
Adopt	27.10686	2.808466	9.65	0.000	21.60176	32.61197
β3 Post*Adopt*Real Estate companies	**21.12707**	30.4008	0.69	**0.487**	-38.46399	80.71814
CR	-10.5947	1.022123	-10.37	0.000	-12.59825	-8.591154
Size	1.53e-07	5.99e-08	2.56	0.011	3.59e-08	2.71e-07
Tangibility	13.09532	4.958611	2.64	0.008	3.375546	22.8151
Growth	.1363735	.048762	2.80	0.005	.0407912	.2319559
_cons	86.70859	4.411827	19.65	0.000	78.06061	95.35657

Notes: According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate Companies is a dummy variable which equals to 1 if an company has the aforementioned codes and 0 otherwise. Company excluded if it is not a Real Estate company. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.2 Real Estate companies

1.2.4 Interest Cover (I Cover)

Number of observations = 8,126 - Prob > F = 0.0000 - R-squared = 0.0120

Table 1.2.4: Impact of FRS 102 on I Cover of Real Estate companies

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.2561693	2.856518	0.09	0.929	-5.343339	5.855678
Adopt	-.0896837	2.991401	-0.03	0.976	-5.953597	5.77423
β3 Post*Adopt*Real Estate companies	**-19.9933**	12.72321	-1.57	**0.116**	-44.9341	4.947409
Growth	.2352342	.0551205	4.27	0.000	.1271838	.3432846
Size	-6.58e-08	2.21e-08	-2.98	0.003	-1.09e-07	-2.25e-08
Industry	Included					
_cons	91.59716	21.38076	4.28	0.000	49.68539	133.5089

Notes: According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate Companies is a dummy variable which equals to 1 if an company has the aforementioned codes and 0 otherwise. Company excluded if it is not a Real Estate company. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise.

1.3 Companies with revaluation reserves

1.3.1 Current Ratio (CR)

Number of observations = 11,048 - Prob > F =   0.0000 - R-squared = 0.0556

Table 1.3.1: Impact of FRS 102 on CR of Companies with revaluation reserves

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0574962	.0534011	1.08	0.282	-.0471796	.1621719
Adopt	-.0050879	.0538001	-0.09	0.925	-.1105457	.10037
β3 Post*Adopt*Companies with revaluation reserves	**-.569001**	.0837283	-6.80	**0.000**	-.7331239	-.4048789
ROE	-.0020554	.0003107	-6.62	0.000	-.0026644	-.0014463
Gearing	-.0041713	.0001455	-28.68	0.000	-.0044564	-.0038861
Size	4.58e-09	1.95e-09	2.35	0.019	7.56e-10	8.41e-09
_cons	2.688419	.0573828	46.85	0.000	2.575938	2.8009

Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. *** Significant at 1%, ** Significant at 5% and * significant at 10%. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise.

1.3 Companies with revaluation reserves

1.3.2 Return on Equity (ROE)

Number of observations =10,903 - Prob > F =0.0000 - R-squared = 0.0220

Table 1.3.2: Impact of FRS 102 on ROE of Companies with revaluation reserves

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.7556033	1.140075	-0.66	0.507	-2.990358	1.479152
Adopt	4.602047	1.133675	4.06	0.000	2.379838	6.824255
β3 Post*Adopt*Companies with revaluation reserves	**-9.783863**	1.408849	-6.94	**0.000**	-12.54546	-7.022263
CR	-.914143	.1428836	-6.40	0.000	-1.194221	-.6340651
Growth	.1808824	.0231453	7.82	0.000	.1355135	.2262513
Size	-6.24e-08	2.12e-08	-2.94	0.003	-1.04e-07	-2.08e-08
Gearing	.0028985	.0113053	0.26	0.798	-.019262	.025059
_cons	20.90446	1.190389	17.56	0.000	18.57108	23.23784

Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. *** Significant at 1%, ** Significant at 5% and * significant at 10%. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise.

1.3 Companies with revaluation reserves

1.3.3 Gearing

Number of observations = 10,935 - Prob > F = 0.0000 - R-squared = 0.0575

Table 1.3.3: Impact of FRS 102 on Gearing of Companies with revaluation reserves

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.5649191	2.681092	0.21	0.833	-4.690507	5.820345
Adopt	28.67657	2.900684	9.89	0.000	22.9907	34.36243
β3 Post*Adopt*Companies with revaluation reserves	**-16.3872**	6.06378	-2.70	**0.007**	-28.2733	-4.50109
CR	-10.62385	1.024173	-10.37	0.000	-12.63141	-8.616282
Size	1.53e-07	6.01e-08	2.55	0.011	3.52e-08	2.71e-07
Tangibility	14.78409	4.991534	2.96	0.003	4.999781	24.5684
Growth	.136435	.048762	2.80	0.005	.0408527	.2320173
_cons	85.21757	4.437241	19.21	0.000	76.51977	93.91537

Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. *** Significant at 1%, ** Significant at 5% and * significant at 10%. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise.

1.3 Companies with revaluation reserves

1.3.4 Interest Cover (I Cover)

Number of observations = 8,126 - Prob > F = 0.0000 - R-squared = 0.0131

Table 1.3.4: Impact of FRS 102 on I Cover of Companies with revaluation reserves

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	2.255529	2.967119	0.76	0.447	-3.560785	8.071844
Adopt	1.411933	3.051778	0.46	0.644	-4.570335	7.394201
β3 Post*Adopt*Companies with revaluation reserves	**-19.8327**	5.044039	-3.93	**0.000**	-29.72036	-9.94514
Growth	.2360478	.0552695	4.27	0.000	.1277054	.3443902
Size	-6.51e-08	2.18e-08	-2.99	0.003	-1.08e-07	-2.24e-08
Industry	Included					
_cons	89.96595	21.37622	4.21	0.000	48.06308	131.8688

Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. *** Significant at 1%, ** Significant at 5% and * significant at 10%. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise.

1.4 Companies with overseas turnover

1.4.1 Current Ratio (CR)

Number of observations = 11,048 - Prob > F = 0.0000 - R-squared = 0.0548

Table 1.4.1: Impact of FRS 102 on CR of Companies with overseas turnover

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.0634998	.0572388	-1.11	0.267	-.175698	.0486985
Adopt	-.1070142	.057082	-1.87	0.061	-.2189052	.0048769
β3 Post*Adopt*Companies with overseas turnover	**.2600096**	.0907102	2.87	**0.004**	.0822014	.4378178
ROE	-.0019685	.0003078	-6.40	0.000	-.0025718	-.0013652
Gearing	-.0041496	.0001449	-28.63	0.000	-.0044337	-.0038655
Size	4.57e-09	1.95e-09	2.35	0.019	7.52e-10	8.39e-09
_cons	2.746123	.058338	47.07	0.000	2.63177	2.860476

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with overseas turnover is a dummy variable which equals 1 if a company has overseas turnover and 0 otherwise.

1.4 Companies with overseas turnover

1.4.2 Return on Equity (ROE)

Number of observations = 10,903 - Prob > F = 0.0000 - R-squared = 0.0214

Table 1.4.2: Impact of FRS 102 on ROE of Companies with overseas turnover

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.3439059	1.186549	-0.29	0.772	-2.669757	1.981945
Adopt	4.956382	1.195113	4.15	0.000	2.613742	7.299021
β3 Post*Adopt*Companies with overseas turnover	**-4.447283**	1.88959	-2.35	**0.019**	-8.151223	-.7433437
CR	-.8708851	.1407865	-6.19	0.000	-1.146852	-.594918
Gearing	.0029576	.011307	0.26	0.794	-.0192062	.0251214
Growth	.1805099	.0230912	7.82	0.000	.135247	.2257727
Size	-6.31e-08	2.18e-08	-2.90	0.004	-1.06e-07	-2.04e-08
_cons	20.59664	1.221417	16.86	0.000	18.20244	22.99084

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with overseas turnover is a dummy variable which equals 1 if a company has overseas turnover and 0 otherwise.

1.4 Companies with overseas turnover

1.4.3 Gearing

Number of observations =10,935 - Prob > F = 0.0000 - R-squared = 0.0573

Table 1.4.3: Impact of FRS 102 on Gearing of Companies with overseas turnover

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	1.672826	2.915024	0.57	0.566	-4.04115	7.386801
Adopt	29.23949	3.055731	9.57	0.000	23.2497	35.22927
β3 Post*Adopt*Companies with overseas turnover	**-8.8922**	4.459203	-1.99	**0.046**	-17.633	-.15144
CR	-10.56821	1.019162	-10.37	0.000	-12.56595	-8.570465
Size	1.54e-07	5.96e-08	2.58	0.010	3.72e-08	2.71e-07
Tangibility	12.63198	4.958792	2.55	0.011	2.911853	22.35211
Growth	.1355372	.0486165	2.79	0.005	.0402399	.2308344
_cons	85.518	4.462589	19.16	0.000	76.77052	94.26549

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with overseas turnover is a dummy variable which equals 1 if a company has overseas turnover and 0 otherwise.

1.4 Companies with overseas turnover

1.4.4 Interest Cover (I Cover)

Number of observations = 8,126 - Prob > F = 0.0000 - R-squared = 0.0120

Table 1.4.4: Impact of FRS 102 on I Cover of Companies with overseas turnover

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.1381451	3.140999	-0.04	0.965	-6.295309	6.019019
Adopt	-.3756238	3.130616	-0.12	0.904	-6.512434	5.761187
β3 Post*Adopt*Companies with overseas turnover	**.8129148**	4.648878	0.17	**0.861**	-8.30008	9.925909
Growth	.2354524	.0551551	4.27	0.000	.1273342	.3435706
Size	-6.61e-08	2.22e-08	-2.98	0.003	-1.10e-07	-2.26e-08
Industry	-75.75942	21.57797	-3.51	0.000	-118.0578	-33.46106
_cons	91.88847	21.3998	4.29	0.000	49.93936	133.8376

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with overseas turnover is a dummy variable which equals 1 if a company has overseas turnover and 0 otherwise.

1.5 Companies with Acquisition & disposal

1.5.1 Current ratios (CR)

Number of observations = 267 - Prob > F = 0.0004 - R-squared = 0.0980

Table 1.5.1: Impact of FRS 102 on CR of Companies with Acquisition & disposal

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.4104963	.280714	-1.46	0.145	-.9632487	.1422562
Adopt	-.4173887	.2724526	-1.53	0.127	-.9538736	.1190963
β3 Post*Adopt*Acquisition & disposal	**-5.91e-07**	5.03e-07	-1.18	**0.241**	-1.58e-06	3.99e-07
Gearing	-.0029289	.0006729	-4.35	0.000	-.0042539	-.001604
Size	1.35e-08	6.33e-09	2.14	0.034	1.06e-09	2.60e-08
_cons	2.332089	.2695622	8.65	0.000	1.801296	2.862883

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Acquisition & disposal is the real value of the item from financial statements.

1.5 Companies with Acquisition & disposal

1.5.2 Return on Equity (ROE)

Number of observations = 228 - Prob > F = 0.0045 - R-squared = 0.0370

Table 1.5.2: Impact of FRS 102 on ROE of Companies with Acquisition & disposal

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.6593536	6.755168	-0.10	0.922	-13.97248	12.65377
Adopt	6.441624	6.160937	1.05	0.297	-5.700385	18.58363
β3 Post*Adopt* Acquisition & disposal	**9.30e-06**	.0000106	0.88	**0.382**	-.0000116	.0000302
CR	-1.063123	1.142086	-0.93	0.353	-3.313953	1.187706
Gearing	-.0418706	.0467674	-0.90	0.372	-.13404	.0502988
Growth	.0696457	.0612324	1.14	0.257	-.0510313	.1903228
Size	-8.43e-08	9.51e-08	-0.89	0.376	-2.72e-07	1.03e-07
_cons	29.16885	7.264011	4.02	0.000	14.8529	43.48481

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Acquisition & disposal is the real value of the item from financial statements.

1.5 Companies with Acquisition & disposal

1.5.3 Gearing

Number of observations = 228   -   Prob > F = 0.0000   -   R-squared = 0.2445

Table 1.5.3: Impact of FRS 102 on Gearing of Companies with Acquisition & disposal

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-16.10867	20.59966	-0.78	0.435	-56.7066	24.48925
Adopt	-27.77782	19.30122	-1.44	0.152	-65.81677	10.26114
β3 Post*Adopt*Acquisition & disposal	**-.0000243**	.0000297	-0.82	**0.413**	-.0000828	.0000341
CR	-17.00085	5.957353	-2.85	0.005	-28.74164	-5.260069
Size	1.70e-06	2.11e-07	8.04	0.000	1.28e-06	2.11e-06
Tangibility	2.017454	35.1327	0.06	0.954	-67.22227	71.25717
Growth	.4217126	.1077946	3.91	0.000	.2092705	.6341548
_cons	98.16806	29.5109	3.33	0.001	40.00781	156.3283

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Acquisition & disposal is the real value of the item from financial statements.

1.5 Companies with Acquisition & disposal

1.5.4 Interest Cover (I Cover)

Number of observations = 213   -   Prob > F = .   -   R-squared = 0.0713

Table 1.5.4: Impact of FRS 102 on I Cover of Companies with Acquisition & disposal

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-6.827817	25.54191	-0.27	0.790	-57.2066	43.55096
Adopt	41.84522	26.98791	1.55	0.123	-11.38563	95.07607
β3 Post*Adopt*Acquisition & disposal	**8.42e-06**	.0000182	0.46	**0.644**	-.0000275	.0000443
Growth	-.059998	.072104	-0.83	0.406	-.2022158	.0822197
Size	-1.37e-09	3.10e-07	-0.00	0.996	-6.12e-07	6.09e-07
Industry	Included					
_cons	-39.29097	27.35244	-1.44	0.152	-93.24081	14.65888

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Acquisition & disposal is the real value of the item from financial statements.

1.6 Companies with intangibles (amortization)

1.6.1 Current Ratio (CR)

Number of observations = 3,628 - Prob > F = 0.0000 - R-squared = 0.0530

Table 1.6.1: Impact of FRS 102 on CR of Companies with Amortization

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0993158	.0863545	1.15	0.250	-.0699924	.2686241
Adopt	.081439	.088726	0.92	0.359	-.0925189	.255397
β3 Post*Adopt*Amortization	**1.78e-07**	2.24e-07	0.79	**0.427**	-2.61e-07	6.17e-07
ROE	-.0017443	.0003621	-4.82	0.000	-.0024543	-.0010343
Gearing	-.0035926	.0002316	-15.51	0.000	-.0040467	-.0031385
Size	2.89e-09	1.91e-09	1.52	0.129	-8.41e-10	6.63e-09
Growth	-.0015332	.0008908	-1.72	0.085	-.0032797	.0002134
_cons	2.297935	.0910339	25.24	0.000	2.119452	2.476418

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements.

1.6 Companies with intangibles (amortization)

1.6.2 Return on Equity (ROE)

Number of observations = 3,628 - Prob > F = 0.0000 - R-squared = 0.0278

Table 1.6.2: Impact of FRS 102 on ROE of Companies with Amortization

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.1205033	1.977919	0.06	0.951	-3.757443	3.99845
Adopt	-.2639237	1.994285	-0.13	0.895	-4.173958	3.646111
β3 Post*Adopt*Amortization	**-.0000124**	3.48e-06	-3.58	**0.000**	-.0000193	-5.63e-06
CR	-.9422229	.2397635	-3.93	0.000	-1.412308	-.4721379
Gearing	-.0327962	.0176178	-1.86	0.063	-.0673381	.0017457
Growth	.2141075	.0469127	4.56	0.000	.1221295	.3060854
Size	-2.66e-08	1.46e-08	-1.83	0.067	-5.52e-08	1.92e-09
_cons	26.48692	2.190568	12.09	0.000	22.19205	30.78179

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements.

1.6 Companies with intangibles (amortization)

1.6.3 Gearing

Number of observations = 3,634 - Prob > F = 0.0000 - R-squared = 0.0659

Table 1.6.3: Impact of FRS 102 on Gearing of Companies with Amortization

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	3.031512	4.923008	0.62	0.538	-6.620628	12.68365
Adopt	7.872382	5.159553	1.53	0.127	-2.243533	17.9883
β3 Post*Adopt*Amortization	**-3.54e-08**	8.32e-06	-0.00	**0.997**	-.0000163	.0000163
CR	-10.43416	1.877303	-5.56	0.000	-14.11484	-6.753485
Size	6.39e-08	3.74e-08	1.71	0.087	-9.39e-09	1.37e-07
Tangibility	91.82758	12.6428	7.26	0.000	67.03987	116.6153
Growth	.2001527	.089487	2.24	0.025	.0247028	.3756027
_cons	85.17	8.313624	10.24	0.000	68.87015	101.4698

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements.

1.6 Companies with intangibles (amortization)

1.6.4 Interest Cover (I Cover)

Number of observations = 3,371 - Prob > F = 0.0000 - R-squared = 0.0134

Table 1.6.4: Impact of FRS 102 on I Cover of Companies with Amortization

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	3.590229	4.276992	0.84	0.401	-4.79555	11.97601
Adopt	3.602575	4.418992	0.82	0.415	-5.06162	12.26677
β3 Post*Adopt*Amortization	**-.0000146**	3.01e-06	-4.87	**0.000**	-.0000205	-8.74e-06
Growth	.1441672	.0683235	2.11	0.035	.0102071	.2781273
Size	-2.76e-08	1.07e-08	-2.58	0.010	-4.86e-08	-6.60e-09
Industry	Included					
_cons	57.11757	26.68189	2.14	0.032	4.803116	109.432

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements.

1.7 Construction Companies (capitalization choices of borrowing costs)

1.7.1 Current Ratio (CR)

Number of observations = 11,048 - Prob > F = 0.0000 - R-squared = 0.0547

Table 1.7.1: Impact of FRS 102 on CR of Construction Companies

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0274933	.0519018	0.53	0.596	-.0742434	.1292301
Adopt	-.030376	.0525115	-0.58	0.563	-.133308	.072556
β3 Post*Adopt*Construction Companies	**-.596851**	.1001167	-5.96	**0.000**	-.7930977	-.4006044
ROE	-.0019914	.0003072	-6.48	0.000	-.0025935	-.0013893
Gearing	-.0041721	.0001455	-28.68	0.000	-.0044573	-.003887
Size	4.55e-09	1.94e-09	2.35	0.019	7.50e-10	8.35e-09
_cons	2.702693	.0568471	47.54	0.000	2.591262	2.814123

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A construction company is a dummy variable which equals 1 if a company within the Construction sector, and 0 otherwise.

1.7 Construction Companies (capitalization choices of borrowing costs)

1.7.2 Return on Equity (ROE)

Number of observations = 10,903 - Prob > F = 0.0000 - R-squared   =   0.0208

Table 1.7.2: Impact of FRS 102 on ROE of Construction Companies

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-1.624289	1.104524	-1.47	0.141	-3.789358	.5407791
Adopt	3.869166	1.107598	3.49	0.000	1.698073	6.04026
β3 Post*Adopt*Construction Companies	**1.018243**	3.377209	0.30	**0.763**	-5.601701	7.638187
CR	-.8839327	.1414704	-6.25	0.000	-1.16124	-.6066249
Gearing	.0031792	.0113118	0.28	0.779	-.0189941	.0253524
Growth	.1808593	.023143	7.81	0.000	.1354949	.2262238
Size	-6.30e-08	2.16e-08	-2.92	0.003	-1.05e-07	-2.08e-08
_cons	21.26366	1.177351	18.06	0.000	18.95584	23.57148

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A construction company is a dummy variable which equals 1 if a company within the Construction sector, and 0 otherwise.

1.7 Construction Companies (capitalization choices of borrowing costs)

1.7.3 Gearing

Number of observations = 10,935 - Prob > F = 0.0000 - R-squared = 0.0573

Table 1.7.3: Impact of FRS 102 on Gearing of Construction Companies

Gearing	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.1861955	2.621963	-0.07	0.943	-5.325717	4.953326
Adopt	27.73221	2.821512	9.83	0.000	22.20153	33.26288
β3 Post*Adopt*Construction Companies	**-20.73461**	10.64243	-1.95	**0.051**	-41.59569	.1264771
CR	-10.61783	1.024118	-10.37	0.000	-12.62529	-8.610371
Size	1.53e-07	6.00e-08	2.55	0.011	3.54e-08	2.71e-07
Tangibility	13.00159	4.959579	2.62	0.009	3.279917	22.72326
Growth	.1365944	.0487501	2.80	0.005	.0410353	.2321535
_cons	86.41956	4.411737	19.59	0.000	77.77176	95.06737

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A construction company is a dummy variable which equals 1 if a company within the Construction sector, and 0 otherwise.

1.7 Construction Companies (capitalization choices of borrowing costs)

1.7.4 Interest Cover (I Cover)

Number of observations = 8,126 - Prob > F = 0.0000 - R-squared = 0.0120

Table 1.7.4: Impact of FRS 102 on Gearing of Construction Companies

I Cover	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.4086761	2.87712	0.14	0.887	-5.231218	6.04857
Adopt	.1226974	3.00136	0.04	0.967	-5.76074	6.006134
β3 Post*Adopt*Construction Companies	**-8.470385**	12.86571	-0.66	**0.510**	-33.69047	16.7497
Growth	.2354408	.0551174	4.27	0.000	.1273966	.343485
Size	-6.63e-08	2.23e-08	-2.98	0.003	-1.10e-07	-2.27e-08
Industry	Included					
_cons	91.38169	21.38619	4.27	0.000	49.45927	133.3041

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A construction company is a dummy variable which equals 1 if a company within the Construction sector, and 0 otherwise.

1.8 Groups (Pension cost/scheme and Intra group loans)

1.8.1 Current Ratio (CR)

Number of observations = 10,903   -   Prob > F = 0.0000   -   R-squared = 0.0570

Table 1.8.1: Impact of FRS 102 on CR of Group Companies

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.096529	.0694705	-1.39	0.165	-.2327038	.0396458
Adopt	-.1347068	.0687768	-1.96	0.050	-.2695218	.0001082
β3 Post*Adopt*Groups	**.1873676**	.0934958	2.00	**0.045**	.0040988	.3706364
ROE	-.0019871	.0003102	-6.41	0.000	-.0025951	-.0013792
Gearing	-.0042279	.0001509	-28.01	0.000	-.0045237	-.003932
Size	6.25e-09	2.53e-09	2.47	0.014	1.28e-09	1.12e-08
Growth	-.0002888	.0007651	-0.38	0.706	-.0017886	.0012109
_cons	2.750523	.0683914	40.22	0.000	2.616464	2.884583

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group is a dummy variable which equal 1 for groups companies and 0 otherwise.

1.8 Groups (Pension cost/scheme and Intra group loans)

1.8.2 Return on Equity (ROE)

Number of observations = 10,903   -   Prob > F = 0.0000   -   R-squared = 0.0210

Table 1.8.2: Impact of FRS 102 on ROE of Group Companies

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.3096546	1.364699	-0.23	0.821	-2.984713	2.365404
Adopt	4.974305	1.462263	3.40	0.001	2.108003	7.840606
β3 Post*Adopt*Groups	**-2.279513**	1.907652	-1.19	**0.232**	-6.018857	1.459831
CR	-.880857	.1413257	-6.23	0.000	-1.157881	-.603833
Gearing	.0032511	.0113042	0.29	0.774	-.0189072	.0254095
Growth	.1809905	.0231509	7.82	0.000	.1356106	.2263705
Size	-6.29e-08	2.15e-08	-2.92	0.003	-1.05e-07	-2.07e-08
_cons	20.57489	1.263271	16.29	0.000	18.09865	23.05113

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group is a dummy variable which equal 1 for groups companies and 0 otherwise.

1.8 Groups (Pension cost/scheme and Intra group loans)

1.8.3 Gearing

Number of observations = 10,935 - Prob > F = 0.0000 - R-squared = 0.0574

Table 1.8.3: Impact of FRS 102 on Gearing of Group Companies

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-6.836213	3.343626	-2.04	0.041	-13.39033	-.2821009
Adopt	22.20092	3.572792	6.21	0.000	15.1976	29.20423
β3 Post*Adopt*Groups	**10.6698**	4.68021	2.28	**0.023**	1.495742	19.84386
CR	-10.60569	1.020386	-10.39	0.000	-12.60583	-8.60555
Size	1.52e-07	5.98e-08	2.55	0.011	3.52e-08	2.70e-07
Tangibility	13.34844	4.958578	2.69	0.007	3.628725	23.06815
Growth	.135808	.0488518	2.78	0.005	.0400497	.2315663
_cons	89.64636	4.5526	19.69	0.000	80.72244	98.57028

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group is a dummy variable which equal 1 for groups companies and 0 otherwise.

1.8 Groups (Pension cost/scheme and Intra group loans)

1.8.4 Interest Cover (I Cover)

Number of observations = 8,126 - Prob > F = 0.0000 - R-squared = 0.0121

Table 1.8.4: Impact of FRS 102 on I Cover of Group Companies

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	2.971795	4.250601	0.70	0.484	-5.360474	11.30406
Adopt	1.952786	3.779692	0.52	0.605	-5.456381	9.361953
β3 Post*Adopt*Groups	**-4.60111**	5.289491	-0.87	**0.384**	-14.96987	5.76765
Growth	.235448	.0552047	4.26	0.000	.1272325	.3436634
Size	-6.57e-08	2.21e-08	-2.97	0.003	-1.09e-07	-2.23e-08
Industry			Included			
_cons	90.29473	21.32827	4.23	0.000	48.48583	132.1036

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group is a dummy variable which equal 1 for groups companies and 0 otherwise.

1.9 Companies with R&D (capitalization choice of development costs)

1.9.1 Current Ratio (CR)

Number of observations = 441 - Prob > F = 0.0015 - R-squared = 0.0557

Table 1.9.1: Impact of FRS 102 on CR of Companies with R&D

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.2531815	.3057659	-0.83	0.408	-.8541515	.3477885
Adopt	.3229367	.285292	1.13	0.258	-.2377928	.8836661
β3 Post*Adopt*Companies with R&D	**7.81e-08**	1.25e-07	0.62	**0.534**	-1.68e-07	3.24e-07
ROE	-.0031046	.0013565	-2.29	0.023	-.0057708	-.0004385
Gearing	-.0060777	.0012883	-4.72	0.000	-.0086098	-.0035457
Size	9.57e-10	1.58e-09	0.60	0.546	-2.16e-09	4.07e-09
Growth	-.0048038	.0035426	-1.36	0.176	-.0117667	.0021591
_cons	3.287495	.2306651	14.25	0.000	2.834132	3.740857

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of the item of research & development from financial statements.

1.9 Companies with R&D (capitalization choice of development costs)

1.9.2 Return on Equity (ROE)

Number of observations = 441 - Prob > F = 0.3678 - R-squared = 0.0072

Table 1.9.2: Impact of FRS 102 on ROE of Companies with R&D

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.3947832	6.112993	-0.06	0.949	-12.40961	11.62005
Adopt	.6884755	4.266647	0.16	0.872	-7.697439	9.07439
β3 Post*Adopt* Companies with R&D	**-4.42e-07**	1.79e-06	-0.25	**0.805**	-3.95e-06	3.07e-06
CR	-1.105957	.5417956	-2.04	0.042	-2.170834	-.0410809
Gearing	-.0359636	.0514795	-0.70	0.485	-.1371444	.0652172
Growth	.0602564	.2463218	0.24	0.807	-.4238786	.5443915
Size	-2.66e-09	6.18e-09	-0.43	0.667	-1.48e-08	9.49e-09
_cons	25.85836	4.681515	5.52	0.000	16.65704	35.05968

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of the item of research & development from financial statements.

1.9 Companies with R&D (capitalization choice of development costs)

1.9.3. Gearing

Number of observations = 441 - Prob > F = 0.0000 - R-squared = 0.0935

Table 1.9.3: Impact of FRS 102 on Gearing of Companies with R&D

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-4.481927	10.92832	-0.41	0.682	-25.96121	16.99736
Adopt	10.53921	10.64028	0.99	0.322	-10.37395	31.45238
β3 Post*Adopt* Companies with R&D	**8.44e-06**	.000015	0.56	**0.573**	-.000021	.0000378
CR	-6.59985	2.597317	-2.54	0.011	-11.7048	-1.494901
ROE	-.0991969	.2115488	-0.47	0.639	-.5149898	.316596
Size	2.38e-08	1.18e-08	2.02	0.044	6.02e-10	4.70e-08
Tangibility	56.21603	36.15056	1.56	0.121	-14.83683	127.2689
Growth	.6351258	.3164726	2.01	0.045	.0131082	1.257143
_cons	61.65947	16.9297	3.64	0.000	28.38464	94.93431

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of the item of research & development from financial statements.

1.9 Companies with R&D (capitalization choice of development costs)

1.9.4 Interest Cover (I Cover)

Number of observations = 356 - F(16, 336) = . - Prob > F = . - R-squared   =   0.0413

Table 1.9.4: Impact of FRS 102 on I Cover of Companies with R&D

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	30.65576	19.27976	1.59	0.113	-7.268478	68.57999
Adopt	-11.94331	17.20951	-0.69	0.488	-45.79527	21.90864
β3 Post*Adopt*Companies with R&D	**-5.62e-06**	6.98e-06	-0.81	**0.421**	-.0000193	8.10e-06
Growth	.3705244	.2041265	1.82	0.070	-.0310025	.7720513
Size	-2.54e-08	1.16e-08	-2.19	0.029	-4.82e-08	-2.57e-09
Industry	Included					
_cons	-33.78948	9.027232	-3.74	0.000	-51.54649	-16.03247

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of the item of research & development from financial statements.

1.10 Companies with operating lease rentals

1.10.1 Current Ratio (CR)

Number of observations = 8,051 - Prob > F = 0.0000 - R-squared = 0.0604

Table 1.10.1: Impact of FRS 102 on CR of Companies with operating lease rentals

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0388381	.0647435	0.60	0.549	-.0880759	.1657522
Adopt	.0907169	.0640395	1.42	0.157	-.0348171	.216251
β3 Post*Adopt*Companies with operating lease rentals	**-6.91e-08**	6.11e-08	-1.13	**0.258**	-1.89e-07	5.07e-08
ROE	-.0016588	.0003279	-5.06	0.000	-.0023015	-.001016
Gearing	-.0041419	.0001885	-21.98	0.000	-.0045113	-.0037725
Size	1.26e-08	4.31e-09	2.94	0.003	4.20e-09	2.11e-08
Growth	-.000017	.0011135	-0.02	0.988	-.0021997	.0021658
_cons	2.485066	.0754967	32.92	0.000	2.337073	2.633059

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Operating lease rentals is the real value of the item from financial statements.

1.10 Companies with operating lease rentals

1.10.2 Return on Equity (ROE)

Number of observations = 8,051 - Prob > F = 0.0000 - R-squared = 0.0199

Table 1.10.2: Impact of FRS 102 on ROE of Companies with operating lease rentals

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.3688703	1.374369	-0.27	0.788	-3.06299	2.32525
Adopt	3.224135	1.384486	2.33	0.020	.5101839	5.938087
β3 Post*Adopt*Companies with operating lease rentals	**-2.28e-06**	1.86e-06	-1.23	**0.219**	-5.93e-06	1.36e-06
CR	-.752344	.1551215	-4.85	0.000	-1.056422	-.4482657
Gearing	.0024641	.013485	0.18	0.855	-.0239699	.0288981
Growth	.1895106	.0304883	6.22	0.000	.1297457	.2492755
Size	-1.22e-07	2.97e-08	-4.13	0.000	-1.80e-07	-6.42e-08
_cons	22.2896	1.470135	15.16	0.000	19.40775	25.17144

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Operating lease rentals is the real value of the item from financial statements.

1.10 Companies with operating lease rentals

1.10.3 Gearing

Number of observations = 8,070 - Prob > F = 0.0000 - R-squared = 0.0557

Table 1.10.3: Impact of FRS 102 on Gearing of Companies with operating lease rentals

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-2.072071	3.313812	-0.63	0.532	-8.567998	4.423856
Adopt	23.47309	3.40535	6.89	0.000	16.79772	30.14845
β3 Post*Adopt*Companies with operating lease rentals	**.0000113**	7.23e-06	1.57	**0.118**	-2.85e-06	.0000255
CR	-10.23115	1.174605	-8.71	0.000	-12.53368	-7.928623
Size	3.11e-07	1.33e-07	2.34	0.019	5.00e-08	5.71e-07
Tangibility	18.21351	6.3129	2.89	0.004	5.838595	30.58843
Growth	.1633827	.0635108	2.57	0.010	.0388852	.2878803
_cons	85.58749	5.02171	17.04	0.000	75.74364	95.43134

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Operating lease rentals is the real value of the item from financial statements.

1.10 Companies with operating lease rentals

1.10.4 Interest Cover (I Cover)

Number of observations = 6,201 - Prob > F = 0.0000 - R-squared = 0.0129

Table 1.10.4: Impact of FRS 102 on I Cover of Companies with operating lease rentals

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.7651994	3.245127	-0.24	0.814	-7.126778	5.596379
Adopt	1.088481	3.343687	0.33	0.745	-5.466308	7.643271
β3 Post*Adopt*Companies with operating lease rentals	**-1.56e-07**	5.00e-08	-3.12	**0.002**	-2.54e-07	-5.82e-08
Growth	.2083186	.058755	3.55	0.000	.0931384	.3234988
Size	-1.13e-07	4.42e-08	-2.55	0.011	-1.99e-07	-2.61e-08
Industry	Included					
_cons	32.77286	13.61605	2.41	0.016	6.080677	59.46505

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Operating lease rentals is the real value of the item from financial statements. I Cover could be because of increases in interests paid on leasing. However, using both regression and correlation analysis, there has been no relationship between (Paid on Leasing) and (Total Operating Lease Rentals). This indicates that there has been no reclassification between the Operating and Finance lease. May be other transactions as well as the Coefficient is very little.

2. Transactions-based analysis: Size effect

2.1 Companies with Investment properties activities[*]:

2.1.1 Current Ratio (CR)

Number of obs = 10,903 - Prob > F = 0.0000 - R-squared = 0.0467

Table 2.1.1: Impact of FRS 102 on CR according to smaller vs. larger investment properties companies

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0112335	.0518028	0.22	0.828	-.0903095	.1127765
Adopt	-.0310124	.05282	-0.59	0.557	-.1345493	.0725244
Post*Adopt*IP activity*Smaller Size	**-.1719213**	.5555864	-0.31	**0.757**	-1.260972	.9171291
Post*Adopt*IP activity*Larger Size	**.6812896**	.5579765	1.22	**0.222**	-.4124457	1.775025
ROE	-.0022573	.0003185	-7.09	0.000	-.0028816	-.001633
Gearing	-.0041571	.0001461	-28.44	0.000	-.0044436	-.0038707
Growth (Total Asset)	-.0000785	.0007578	-0.10	0.918	-.0015638	.0014069
_cons	2.775429	.0545968	50.84	0.000	2.66841	2.882449

* According to trade description in FAME data base. Company with Investment properties activities is dummy variable which equals to 1 if an company has investment properties activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.1 Companies with Investment properties activities[*]:

2.1.2 Return on Equity (ROE)

Number of obs = 10,903 - Prob > F = 0.0000 - R-squared = 0.0186

Table 2.1.2: Impact of FRS 102 on ROE according to smaller vs. larger investment properties companies

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-1.640386	1.0952	-1.50	0.134	-3.787177	.5064042
Adopt	3.731062	1.099928	3.39	0.001	1.575004	5.887121
Post*Adopt*IP activity*Smaller Size	**13.72113**	5.845746	2.35	**0.019 ****	2.262401	25.17985
Post*Adopt*IP activity*Larger Size	**-6.688495**	3.083573	-2.17	**0.030 ****	-12.73286	-.6441315
CR	-.9922826	.1409077	-7.04	0.000	-1.268487	-.7160778
Gearing	.002102	.0112839	0.19	0.852	-.0200166	.0242206
Growth (Total Asset)	.1794366	.0231419	7.75	0.000	.1340744	.2247988
_cons	20.80012	1.178919	17.64	0.000	18.48922	23.11101

* According to trade description in FAME data base. Company with Investment properties activities is dummy variable which equals to 1 if an company has investment properties activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.1 Companies with Investment properties activities[*]:

2.1.3 Gearing

$$Number\ of\ obs\ =\ 10{,}903$$
$$Prob > F\ =\ 0.0000$$
$$R\text{-}squared\ =\ 0.0538$$

Table 2.1.3: Impact of FRS 102 on Gearing according to smaller vs. larger investment properties companies

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-1.078533	2.601982	-0.41	0.679	-6.178892	4.021825
Adopt	24.59079	2.580508	9.53	0.000	19.53253	29.64906
Post*Adopt*IP activity*Smaller Size	**-42.98076**	13.52522	-3.18	**0.001 ***	-69.49264	-16.46887
Post*Adopt*IP activity*Larger Size	**58.09772**	43.52115	1.33	**0.182**	-27.21164	143.4071
CR	-10.44239	1.018838	-10.25	0.000	-12.4395	-8.445283
ROE	.0120115	.0644862	0.19	0.852	-.1143931	.1384161
Growth (Total Asset)	.1392196	.0504834	2.76	0.006	.040263	.2381763
cons	94.23949	3.738937	25.20	0.000	86.91049	101.5685

* According to trade description in FAME data base. Company with Investment properties activities is dummy variable which equals to 1 if an company has investment properties activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.1 Companies with Investment properties activities[*]:

2.1.4 Interest Cover (I Cover)

$$Number\ of\ obs\ =\ 8{,}126\ -\ Prob > F\ = 0.0000\ -\ R\text{-}squared = 0.0118$$

Table 2.1.4: Impact of FRS 102 on I Cover according to smaller vs. larger investment properties companies

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.082673	2.851266	0.03	0.977	-5.506539	5.671885
Adopt	-.4350064	2.987847	-0.15	0.884	-6.291953	5.42194
Post*Adopt*IP activity*Smaller Size	**85.69118**	103.6445	0.83	**0.408**	-117.4786	288.861
Post*Adopt*IP activity*Larger Size	**-33.06335**	14.3912	-2.30	**0.022 ****	-61.27379	-4.852909
Growth (Total Asset)	.234525	.0551068	4.26	0.000	.1265015	.3425485
Industry	Included					
_cons	90.85486	21.39513	4.25	0.000	48.91491	132.7948

* According to trade description in FAME data base. Company with Investment properties activities is dummy variable which equals to 1 if an company has investment properties activity (for its own, not managing on behalf of others) and 0 otherwise. Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.2 Real Estate companies*:

2.2.1 Current Ratio (CR)

$$
\begin{aligned}
\textit{Number of obs} &= 10{,}903 \\
\textit{Prob} > F &= 0.0000 \\
\textit{R-squared} &= 0.0467
\end{aligned}
$$

Table 2.2.1: Impact of FRS 102 on CR according to smaller vs. larger real estate companies

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0131487	.0518476	0.25	0.800	-.088482	.1147794
Adopt	-.0294052	.0528486	-0.56	0.578	-.132998	.0741877
Post*Adopt*Real Estate*Smaller Size	**-.7420036**	.2031746	-3.65	**0.000 *****	-1.140263	-.3437446
Post*Adopt* Real Estate*Larger Size	**.3625923**	.3416404	1.06	**0.289**	-.307085	1.03227
ROE	-.0022597	.0003186	-7.09	0.000	-.0028842	-.0016353
Gearing	-.0041564	.0001461	-28.45	0.000	-.0044428	-.00387
Growth (Total Asset)	-.0000785	.0007575	-0.10	0.917	-.0015633	.0014063
_cons	2.774449	.0546149	50.80	0.000	2.667394	2.881504

* According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate is a dummy variable which equals to 1 if a company has the aforementioned codes and 0 otherwise Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

Real estate companies might be affected by Financial instruments (Deloitte, 2013) https://www.iasplus.com/en-gb/publications/uk/point-of-view/2013/new-uk-gaap-real-estate

2.2 Real Estate companies*:

2.2.2 Return on Equity (ROE)

$$
\begin{aligned}
\textit{Number of obs} &= 10{,}903 \\
\textit{Prob} > F &= 0.0000 \\
\textit{R-squared} &= 0.0185
\end{aligned}
$$

Table 2.2.2: Impact of FRS 102 on ROE according to smaller vs. larger real estate companies

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-1.647837	1.095437	-1.50	0.133	-3.795092	.4994185
Adopt	3.726435	1.100054	3.39	0.001	1.570129	5.882742
Post*Adopt*Real Estate*Smaller Size	**4.921442**	6.383369	0.77	**0.441**	-7.591121	17.43401
Post*Adopt* Real Estate*Larger Size	**-.4132768**	4.176444	-0.10	**0.921**	-8.599867	7.773313
CR	-.993397	.1409787	-7.05	0.000	-1.269741	-.7170532
Gearing	.0020441	.0112838	0.18	0.856	-.0200743	.0241624
Growth (Total Asset)	.1792879	.0231267	7.75	0.000	.1339554	.2246204
cons	20.81247	1.178952	17.65	0.000	18.50151	23.12343

* According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate is a dummy variable which equals to 1 if a company has the aforementioned codes and 0 otherwise Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.2 Real Estate companies*:

2.2.3 Gearing

Number of obs   =   10,935
Prob > F   =   0.0000
R-squared   =   0.0550

Table 2.2.3: Impact of FRS 102 on Gearing according to smaller vs. larger real estate companies

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.8576293	2.605312	-0.33	0.742	-5.964512	4.249253
Adopt	28.19036	2.800354	10.07	0.000	22.70116	33.67956
Post*Adopt*Real Estate*Smaller Size	**-45.89085**	22.91352	-2.00	**0.045 ***	-90.8055	-.9762041
Post*Adopt* Real Estate*Larger Size	**47.03559**	40.14615	1.17	**0.241**	-31.65814	125.7293
CR	-10.33914	1.000091	-10.34	0.000	-12.2995	-8.378778
Growth (Total Asset)	.140653	.0494068	2.85	0.004	.0438067	.2374992
Tangibility	16.70278	4.768317	3.50	0.000	7.356017	26.04955
cons	86.31396	4.382538	19.69	0.000	77.7234	94.90453

* According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate is a dummy variable which equals 1 if a company has the aforementioned codes and 0 otherwise Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.2 Real Estate companies*:

2.2.4 Interest Cover (CR)

Number of obs   =   8,126
Prob > F   =   0.0000
R-squared   =   0.0115

Table 2.2.4: Impact of FRS 102 on I Cover according to smaller vs. larger real estate companies

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.176366	2.855577	0.06	0.951	-5.421298	5.77403
Adopt	-.3729932	2.990341	-0.12	0.901	-6.234829	5.488843
Post*Adopt*Real Estate*Smaller Size	**-40.99258**	4.636828	-8.84	**0.000 ***	-50.08195	-31.90321
Post*Adopt* Real Estate*Larger Size	**-12.93185**	17.08776	-0.76	**0.449**	-46.42824	20.56453
Growth (Total Asset)	.2329431	.0550975	4.23	0.000	.1249379	.3409483
Industry	Included					
cons	90.7792	21.39609	4.24	0.000	48.83736	132.721

* According to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate is a dummy variable which equals to 1 if a company has the aforementioned codes and 0 otherwise Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.3 Companies with Revaluation Reserves (RR): (A) <u>real values</u>

2.3.1 Current Ratio (CR)

Number of obs = 1,530
Prob > F = 0.0000
R-squared = 0.0340

Table 2.3.1.A: Impact of FRS 102 on CR according to smaller vs. larger companies with RR

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.0085457	.1467809	-0.06	0.954	-.29646	.2793686
Adopt	-.224747	.1707799	-1.32	0.188	-.5597358	.1102418
Post*Adopt*companies with RR*Smaller Size	**-3.00e-07**	1.57e-07	-1.91	**0.056**	-6.08e-07	7.79e-09
Post*Adopt* companies with RR*Larger Size	**5.74e-09**	1.22e-08	0.47	**0.638**	-1.82e-08	2.97e-08
ROE	-.0014656	.001191	-1.23	0.219	-.0038019	.0008706
Gearing	-.0037184	.0004509	-8.25	0.000	-.0046029	-.0028338
Growth (Total Asset)	-.0020289	.0011944	-1.70	0.090	-.0043718	.0003141
_cons	2.469731	.2213546	11.16	0.000	2.035539	2.903924

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is the real value of revaluation reserves from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (A) <u>real values</u>

2.3.2 Return on Equity (ROE)

Number of obs = 1,530
Prob > F = 0.0000
R-squared = 0.0596

Table 2.3.2.A: Impact of FRS 102 on ROE according to smaller vs. larger companies with RR

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	1.808308	1.982251	0.91	0.362	-2.079924	5.69654
Adopt	2.431426	2.549677	0.95	0.340	-2.569825	7.432678
Post*Adopt*companies with RR*Smaller Size	**-1.21e-06**	2.68e-06	-0.45	**0.652**	-6.46e-06	4.04e-06
Post*Adopt* companies with RR*Larger Size	**-3.91e-07**	8.37e-08	-4.67	**0.000 *****	-5.55e-07	-2.26e-07
CR	-.2584572	.1390445	-1.86	0.063	-.5311963	.0142819
Gearing1	-.0350028	.0189507	-1.85	0.065	-.072175	.0021694
Growth (Total Asset)	.2844957	.0929337	3.06	0.002	.102204	.4667874
_cons	13.10531	2.512182	5.22	0.000	8.177608	18.03302

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is the real value of revaluation reserves from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (A) <u>real values</u>

2.3.3 Gearing

Number of obs   =   1,530
Prob > F   =   0.0001
R-squared   =   0.0500

Table 2.3.3.A: Impact of FRS 102 on Gearing according to smaller vs. larger companies with RR

Gearing	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-4.01696	6.559402	-0.61	0.540	-16.88338	8.849463
Adopt	13.83257	6.641586	2.08	0.037	.8049383	26.8602
Post*Adopt*companies with RR*Smaller Size	**-.0000239**	.0000109	-2.19	**0.029 ****	-.0000453	-2.50e-06
Post*Adopt* companies with RR*Larger Size	**1.50e-07**	3.22e-07	0.47	**0.641**	-4.82e-07	7.82e-07
CR	-8.069053	2.4306	-3.32	0.001	-12.83673	-3.301373
ROE	-.4307366	.1477888	-2.91	0.004	-.7206278	-.1408454
Growth (Total Asset)	.2191798	.1483409	1.48	0.140	-.0717944	.5101541
cons	100.8595	8.415396	11.99	0.000	84.35252	117.3665

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is the real value of revaluation reserves from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (A) <u>real values</u>

2.3.4 Interest Cover (I Cover)

Number of obs   =   1,405
Prob > F   =   0.0001
R-squared   =   0.0189

Table 2.3.4.A: Impact of FRS 102 on I Cover according to smaller vs. larger companies with RR

I Cover	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	7.676006	5.52941	1.39	0.165	-3.170823	18.52283
Adopt	-6.737025	5.858874	-1.15	0.250	-18.23015	4.756099
Post*Adopt*companies with RR*Smaller Size	**-.0000127**	8.00e-06	-1.58	**0.114**	-.0000284	3.05e-06
Post*Adopt* companies with RR*Larger Size	**-8.56e-07**	1.95e-07	-4.39	**0.000 *****	-1.24e-06	-4.73e-07
Growth (Total Asset)	.4387973	.2264566	1.94	0.053	-.0054338	.8830285
_cons	31.58583	5.176122	6.10	0.000	21.43203	41.73963

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is the real value of revaluation reserves from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (B) <u>dummy variable</u>

2.3.1 Current Ratio (CR)

Number of obs   =   10,903
Prob > F   =   0.0000
R-squared   =   0.0483

Table 2.3.1.B: Impact of FRS 102 on CR according to smaller vs. larger companies with RR

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0617875	.0540744	1.14	0.253	-.0442081	.1677832
Adopt	.012042	.0547862	0.22	0.826	-.0953488	.1194329
Post*Adopt*companies with RR*Smaller Size	**-.769956**	.0810076	-9.50	**0.000*****	-.9287456	-.6111665
Post*Adopt*companies with RR*Larger Size	**-.4145586**	.1175589	-3.53	**0.000*****	-.6449954	-.1841218
ROE	-.0023146	.0003225	-7.18	0.000	-.0029466	-.0016825
Gearing	-.0041629	.0001463	-28.45	0.000	-.0044498	-.0038761
Growth (Total Asset)	-.0000762	.0007574	-0.10	0.920	-.0015608	.0014085
_cons	2.751081	.0550033	50.02	0.000	2.643265	2.858898

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is a dummy variable which equals 1 if a company has revaluation reserves, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (B) <u>dummy variable</u>

2.3.2 Return on Equity (ROE)

Number of obs   =   11,553
Prob > F   =   0.0000
R-squared   =   0.0108

Table 2.3.2.B: Impact of FRS 102 on ROE according to smaller vs. larger companies with RR

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-2.427035	1.435444	-1.69	0.091	-5.240748	.3866776
Adopt	2.78734	1.399772	1.99	0.046	.0435488	5.53113
Post*Adopt*companies with RR*Smaller Size	**-7.855371**	4.536242	-1.73	**0.083**	-16.74717	1.036433
Post*Adopt*companies with RR*Larger Size	**-10.92893**	2.494156	-4.38	**0.000*****	-15.8179	-6.039964
CR	-.7532762	.3123171	-2.41	0.016	-1.365471	-.1410817
Growth (Total Asset)	.1698642	.0234781	7.24	0.000	.1238432	.2158852
cons	22.37804	1.541134	14.52	0.000	19.35716	25.39893

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is a dummy variable which equals 1 if a company has revaluation reserves, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (B) <u>dummy variable</u>

2.3.3 Gearing

Number of obs   =   10,935
Prob > F   =   0.0000
R-squared   =   0.0553

Table 2.3.3.B: Impact of FRS 102 on Gearing according to smaller vs. larger companies with RR

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.676095	2.68441	0.25	0.801	-4.585834	5.938025
Adopt	29.74663	2.895466	10.27	0.000	24.07099	35.42226
Post*Adopt*companies with RR*Smaller Size	**-23.97532**	8.681462	-2.76	**0.006***	-40.99256	-6.958083
Post*Adopt*companies with RR*Larger Size	**-11.0552**	7.793874	-1.42	**0.156**	-26.33261	4.222202
CR	-10.37058	1.002345	-10.35	0.000	-12.33536	-8.405804
Growth (Total Asset)	.1404587	.0493854	2.84	0.004	.0436543	.237263
Tangibility	18.24172	4.806214	3.80	0.000	8.82067	27.66277
_cons	84.88932	4.410197	19.25	0.000	76.24453	93.5341

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is a dummy variable which equals 1 if a company has revaluation reserves, and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.3 Companies with Revaluation Reserves (RR): (B) <u>dummy variable</u>

2.3.4 Interest Cover (I Cover)

Number of obs   =   8,126
Prob > F   =   0.0000
R-squared   =   0.0125

Table 2.3.4.B: Impact of FRS 102 on I Cover according to smaller vs. larger companies with RR

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	2.193562	2.966584	0.74	0.460	-3.621704	8.008829
Adopt	1.134391	3.050906	0.37	0.710	-4.846168	7.114949
Post*Adopt*companies with RR*Smaller Size	**-16.97511**	7.213712	-2.35	**0.019****	-31.11584	-2.834383
Post*Adopt* companies with RR*Larger Size	**-22.27683**	6.361129	-3.50	**0.000***	-34.74627	-9.807381
Growth (Total Asset)	.2340887	.0552814	4.23	0.000	.1257229	.3424545
Industry	Included					
cons	89.07363	21.39703	4.16	0.000	47.12994	131.0173

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with RR is a dummy variable which equals 1 if a company has revaluation reserves and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. Company with revaluation reserves might include companies that revalue (under fair value) other assets as well as their investment properties. Therefore, this may broadly reflect the impact of Fair Value Accounting more than only the effect of investment property accounting.

2.4 Companies with overseas Turnover

2.4.1 Current Ratio (CR)

Number of obs = 10,903 - Prob > F= 0.0000 - R-squared = 0.0491

Table 2.4.1: Impact of FRS 102 on CR according to smaller vs. larger companies with Oversea Turnover

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.0580179	.0579458	-1.00	0.317	-.1716021	.0555663
Adopt	-.090336	.0581969	-1.55	0.121	-.2044125	.0237406
Post*Adopt*companies with Overseas Turnover*Smaller Size	**-.0630131**	.0980987	-0.64	**0.521**	-.2553044	.1292782
Post*Adopt* companies with Overseas Turnover *Larger Size	**.5535638**	.1284272	4.31	**0.000**	.3018232	.8053044
ROE	-.0022163	.0003191	-6.94	0.000	-.0028418	-.0015907
Gearing	-.0041293	.0001459	-28.31	0.000	-.0044152	-.0038434
Growth (Total Asset)	-.0000767	.0007568	-0.10	0.919	-.0015601	.0014067
cons	2.808072	.0566046	49.61	0.000	2.697116	2.919027

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.4 Companies with overseas Turnover

2.4.2 Return on Equity (ROE)

Number of obs = 10,903 - Prob > F = 0.0000 - R-squared= 0.0190

Table 2.4.2: Impact of FRS 102 on ROE according to smaller vs. larger companies with Oversea Turnover

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.390900	1.188792	-0.33	0.742	-2.721148	1.939348
Adopt	4.79444	1.197587	4.00	0.000	2.446952	7.141927
Post*Adopt*companies with Overseas Turnover*Smaller Size	**-3.88667**	2.492109	-1.56	**0.119**	-8.771662	.9983105
Post*Adopt* companies with Overseas Turnover *Larger Size	**-4.98592**	2.353404	-2.12	**0.034**	-9.599022	-.3728237
CR	-.976213	.1406245	-6.94	0.000	-1.251863	-.7005643
Gearing	.001827	.0112742	0.16	0.871	-.0202725	.0239264
Growth (Total Asset)	.178935	.0230754	7.75	0.000	.1337032	.2241673
cons	20.1468	1.22486	16.45	0.000	17.74587	22.54777

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.4 Companies with overseas Turnover

2.4.3 Gearing

Number of obs = 10,935 - Prob > F = 0.0000 - R-squared = 0.0550

Table 2.4.3: Impact of FRS 102 on Gearing according to smaller vs. larger companies with Oversea Turnover

Gearing	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	1.7124	2.921538	0.59	0.558	-4.014345	7.439144
Adopt	30.30053	3.053262	9.92	0.000	24.31558	36.28548
Post*Adopt*companies with Overseas Turnover*Smaller Size	**-7.820743**	5.778296	-1.35	**0.176**	-19.14725	3.505763
Post*Adopt* companies with Overseas Turnover *Larger Size	**-9.493477**	5.417476	-1.75	**0.080**	-20.11271	1.125756
CR	-10.3009	.9976413	-10.33	0.000	-12.25646	-8.345343
Growth (Total Asset)	.1400768	.0492732	2.84	0.004	.0434923	.2366612
Tangibility	16.36042	4.767078	3.43	0.001	7.016082	25.70475
_cons	85.07261	4.433638	19.19	0.000	76.38188	93.76335

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.4 Companies with overseas Turnover

2.4.4 Interest Cover (I Cover)

Number of obs = 8,126 - Prob > F = 0.0000 - R-squared = 0.0119

Table 2.4.4: Impact of FRS 102 on I Cover according to smaller vs. larger companies with Oversea Turnover

I Cover	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.214253	3.141361	-0.07	0.946	-6.372128	5.943621
Adopt	-.625913	3.13145	-0.20	0.842	-6.764359	5.512532
Post*Adopt*companies with Overseas Turnover*Smaller Size	**-7.23731**	5.235347	-1.38	**0.167**	-17.49994	3.025306
Post*Adopt* companies with Overseas Turnover *Larger Size	**8.36997**	6.425388	1.30	**0.193**	-4.225439	20.96538
Growth (Total Asset)	.234591	.055223	4.25	0.000	.1263398	.3428425
Industry	Included					
_cons	91.8053	21.40325	4.29	0.000	49.84947	133.7612

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.5 Companies with Acquisition & disposal (intangible recognition and amortization)

2.5.1 Current Ratio (CR)

Number of obs =228   -   Prob > F = 0.0189   -   R-squared = 0.0543

Table 2.5.1: Impact of FRS 102 on CR according to smaller vs. larger companies with Acquisition & disposal

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.3634456	.3003138	-1.21	0.227	-.9553057	.2284144
Adopt	-.40816	.3060808	-1.33	0.184	-1.011386	.1950658
Post*Adopt*companies with Acquisition & disposal*Smaller Size	**-8.42e-07**	6.01e-07	-1.40	**0.163**	-2.03e-06	3.43e-07
Post*Adopt*companies with Acquisition & disposal*Larger Size	**4.79e-07**	1.80e-07	2.67	**0.008 *****	1.25e-07	8.34e-07
ROE	-.0020162	.001837	-1.10	0.274	-.0056367	.0016043
Gearing	-.0028035	.000967	-2.90	0.004	-.0047092	-.0008978
Growth (Total Asset)	-.0013611	.001287	-1.06	0.291	-.0038975	.0011753
_cons	2.586343	.3615134	7.15	0.000	1.873871	3.298816

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Acquisition & disposal is the real value of Acquisition & disposal item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.5 Companies with Acquisition & disposal (intangible recognition and amortization)

2.5.2 Return on Equity (ROE)

Number of ob = 228   -   Prob > F = 0.0000   -   R-squared = 0.0540

Table 2.5.2: Impact of FRS 102 on ROE according to smaller vs. larger companies with Acquisition & disposal

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	1.83851	6.909914	0.27	0.790	-11.77959	15.45661
Adopt	8.734863	6.290732	1.39	0.166	-3.662947	21.13267
Post*Adopt*companies with Acquisition & disposal*Smaller Size	**.0000929**	.0000133	6.98	**0.000 *****	.0000667	.0001191
Post*Adopt* companies with Acquisition & disposal*Larger Size	**-3.55e-06**	6.18e-06	-0.57	**0.566**	-.0000157	8.63e-06
CR	-1.187518	1.061188	-1.12	0.264	-3.278914	.9038782
Gearing	-.0394998	.04101	-0.96	0.337	-.1203226	.041323
Growth (Total Asset)	.0704605	.0593039	1.19	0.236	-.0464159	.1873369
_cons	26.65452	7.325074	3.64	0.000	12.21822	41.09082

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Acquisition & disposal is the real value of Acquisition & disposal item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.5 Companies with Acquisition & disposal (intangible recognition and amortization)

2.5.3 Gearing

Number of obs   =   228
Prob > F   =   0.0014
R-squared   =   0.1520

Table 2.5.3: Impact of FRS 102 on Gearing according to smaller vs. larger companies with Acquisition & disposal

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-10.92078	21.0893	-0.52	0.605	-52.48369	30.64213
Adopt	-24.21039	19.29972	-1.25	0.211	-62.24639	13.8256
Post*Adopt*companies with Acquisition & disposal*Smaller Size	**-.000219**	.0001716	-1.28	**0.203**	-.0005572	.0001192
Post*Adopt* companies with Acquisition & disposal*Larger Size	**.0001229**	.0000604	2.03	**0.043 ****	3.79e-06	.000242
CR	-13.13022	5.304758	-2.48	0.014	-23.58486	-2.675569
ROE	-.3140974	.372564	-0.84	0.400	-1.048349	.4201538
Growth (Total Asset)	.4098055	.1134449	3.61	0.000	.1862276	.6333834
cons	120.5938	29.99312	4.02	0.000	61.48315	179.7044

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Acquisition & disposal is the real value of Acquisition & disposal item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.5 Companies with Acquisition & disposal (intangible recognition and amortization)

2.5.4 Interest Cover (I Cover)

Number of obs   =   213
Prob > F   =   0.0006
R-squared   =   0.0169

Table 2.5.4: Impact of FRS 102 on I Cover according to smaller vs. larger companies with Acquisition & disposal

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-12.98834	24.4041	-0.53	0.595	-61.1008	35.12411
Adopt	32.62343	26.16567	1.25	0.214	-18.96193	84.20878
Post*Adopt*companies with Acquisition & disposal*Smaller Size	**.0001334**	.0000491	2.72	**0.007 *****	.0000366	.0002301
Post*Adopt* companies with Acquisition & disposal*Larger Size	**-5.55e-06**	.0000184	-0.30	**0.763**	-.0000418	.0000306
Growth (Total Asset)	-.0798368	.0600896	-1.33	0.185	-.1983028	.0386292
_cons	59.04507	19.96647	2.96	0.003	19.68137	98.40877

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Acquisition & disposal is the real value of Acquisition & disposal item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.6 Companies with intangibles (amortization):

2.6.1 Current Ratio (CR)

Number of obs   =   3,628
Prob > F   =   0.0000
R-squared   =   0.0513

Table 2.6.1: Impact of FRS 102 on CR according to smaller vs. larger companies with intangibles

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.147784	.0893174	1.65	0.098	-.0273336	.3229015
Adopt	.1344288	.0906356	1.48	0.138	-.043273	.3121306
Post*Adopt*companies with intangibles*Smaller Size	**-1.77e-06**	4.26e-07	-4.16	**0.000 *****	-2.61e-06	-9.38e-07
Post*Adopt*companies with intangibles*Larger Size	**2.54e-07**	2.22e-07	1.14	**0.253**	-1.82e-07	6.89e-07
ROE	-.0018262	.0003732	-4.89	0.000	-.0025579	-.0010945
Gearing	-.0035345	.0002261	-15.63	0.000	-.0039778	-.0030912
Growth (Total Asset)	-.0017486	.0009053	-1.93	0.053	-.0035236	.0000263
cons	2.305133	.0922753	24.98	0.000	2.124217	2.48605

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with intangibles is the real value of intangible assets item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.6 Companies with intangibles (amortization):

2.6.2 Return on Equity (ROE)

Number of obs   =   3,628
Prob > F   =   0.0000
R-squared   =   0.0271

Table 2.6.2: Impact of FRS 102 on ROE according to smaller vs. larger companies with intangibles

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0797139	2.030888	0.04	0.969	-3.902084	4.061512
Adopt	-.4397588	2.038855	-0.22	0.829	-4.437178	3.557661
Post*Adopt*companies with intangibles*Smaller Size	**-.0000101**	.0000207	-0.49	**0.626**	-.0000507	.0000306
Post*Adopt* companies with intangibles*Larger Size	**-.0000126**	3.43e-06	-3.69	**0.000 *****	-.0000194	-5.93e-06
CR	-.9854301	.2413298	-4.08	0.000	-1.458586	-.5122741
Gearing	-.0332739	.0175822	-1.89	0.059	-.0677458	.0011981
Growth (Total Asset)	.2142875	.0470234	4.56	0.000	.1220924	.3064826
_cons	26.33068	2.201905	11.96	0.000	22.01358	30.64777

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with intangibles is the real value of intangible assets item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.6 Companies with intangibles (amortization):

2.6.3 Gearing

Number of obs   =   3,628
Prob > F   =   0.0000
R-squared   =   0.0538

Table 2.6.3: Impact of FRS 102 on Gearing according to smaller vs. larger companies with intangibles

Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.0465433	5.058886	-0.01	0.993	-9.965094	9.872007
Adopt	2.710558	5.284465	0.51	0.608	-7.650267	13.07138
Post*Adopt*companies with intangibles*Smaller Size	**.000044**	.0000353	1.25	**0.213**	-.0000253	.0001134
Post*Adopt*companies with intangibles*Larger Size	**3.46e-06**	8.59e-06	0.40	**0.687**	-.0000134	.0000203
CR	-12.48764	.9658708	-12.93	0.000	-14.38135	-10.59394
ROE	-.2178639	.0423747	-5.14	0.000	-.3009447	-.1347832
Growth (Total Asset)	.2574608	.0736238	3.50	0.000	.1131125	.4018092
cons	130.5983	5.439783	24.01	0.000	119.933	141.2637

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with intangibles is the real value of intangible assets item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.6 Companies with intangibles (amortization):

2.6.4 Interest Cover (I Cover)

Number of obs   =   3,371
Prob > F   =   0.0000
R-squared   =   0.0137

Table 2.6.4: Impact of FRS 102 on I Cover according to smaller vs. larger companies with intangibles

I Cover	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	4.627395	4.350826	1.06	0.288	-3.90315	13.15794
Adopt	4.283705	4.466104	0.96	0.338	-4.472861	13.04027
Post*Adopt*companies with intangibles*Smaller Size	**-.0000475**	.0000152	-3.12	**0.002 *****	-.0000774	-.0000176
Post*Adopt* companies with intangibles*Larger Size	**-.0000144**	2.94e-06	-4.90	**0.000 *****	-.0000201	-8.63e-06
Growth (Total Asset)	.1397096	.0681746	2.05	0.041	.0060416	.2733775
Industry	Included					
cons	55.8215	26.68219	2.09	0.037	3.506474	108.1365

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with intangibles is the real value of intangible assets item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.7 Construction companies: <u>capitalization choices of borrowing costs</u>

2.7.1 Current Ratio (CR)

Number of obs =10,903 - Prob > F = 0.0000 - R-squared =0.0474

Table 2.7.1: Impact of FRS 102 on CR according to smaller vs. larger Construction companies

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0327813	.0525163	0.62	0.533	-.0701602	.1357229
Adopt	-.0127212	.0534264	-0.24	0.812	-.1174466	.0920042
Post*Adopt*Construction companies*Smaller Size	**-.7761884**	.0870543	-8.92	**0.000 *****	-.9468306	-.6055462
Post*Adopt* Construction companies*Larger Size	**-.2981263**	.2389365	-1.25	**0.212**	-.7664852	.1702326
ROE	-.0022529	.0003183	-7.08	0.000	-.0028769	-.0016289
Gearing	-.0041637	.0001465	-28.41	0.000	-.004451	-.0038764
Growth (Total Asset)	-.0000709	.0007574	-0.09	0.925	-.0015555	.0014137
cons	2.76469	.054737	50.51	0.000	2.657395	2.871984

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Construction Companies is a dummy variable which equals 1 if a company within construction industry. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.7 Construction companies: <u>capitalization choices of borrowing costs</u>

2.7.2 Return on Equity (ROE)

Number of obs = 10,903 - Prob > F = 0.0000 - R-squared = 0.0185

Table 2.7.2: Impact of FRS 102 on ROE according to smaller vs. larger Construction companies

ROE	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-1.681541	1.105595	-1.52	0.128	-3.848709	.4856264
Adopt	3.697502	1.109855	3.33	0.001	1.521984	5.87302
Post*Adopt*Construction companies*Smaller Size	**2.737201**	3.768273	0.73	**0.468**	-4.649298	10.1237
Post*Adopt* Construction companies*Larger Size	**-1.842681**	6.655142	-0.28	**0.782**	-14.88797	11.20261
CR	-.9911709	.1411208	-7.02	0.000	-1.267793	-.7145485
Gearing	.0020775	.0112813	0.18	0.854	-.0200358	.0241908
Growth (Total Asset)	.1792888	.023126	7.75	0.000	.1339575	.22462
cons	20.82192	1.179248	17.66	0.000	18.51038	23.13346

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Construction Companies is a dummy variable which equals 1 if a company within construction industry. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.7 Construction companies: <u>capitalization choices of borrowing costs</u>

2.7.3 Gearing

Number of obs = 10,935 - Prob > F = 0.0000 - R-squared = 0.0540

Table 2.7.3: Impact of FRS 102 on Gearing according to smaller vs. larger Construction companies

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0337715	2.62621	0.01	0.990	-5.114076	5.181619
Adopt	25.98159	2.583037	10.06	0.000	20.91837	31.04481
Post*Adopt*Construction companies*Smaller Size	**-28.87413**	12.73296	-2.27	**0.023 ****	-53.83303	-3.915224
Post*Adopt* Construction companies*Larger Size	**-7.97496**	19.24126	-0.41	**0.679**	-45.69132	29.7414
CR	-10.49012	1.0099	-10.39	0.000	-12.4697	-8.51053
Growth (Total Asset)	.1401728	.0488918	2.87	0.004	.0443359	.2360096
cons	94.03762	3.459144	27.19	0.000	87.25708	100.8182

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Construction Companies is a dummy variable which equals 1 if a company within construction industry. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.7 Construction companies: <u>capitalization choices of borrowing costs</u>

2.7.4 Interest Cover (I Cover)

Number of obs = 8,126 - Prob > F = 0.0000 - R-squared = 0.0119

Table 2.7.4: Impact of FRS 102 on I Cover according to smaller vs. larger Construction companies

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.3113557	2.875757	0.11	0.914	-5.325867	5.948578
Adopt	-.1796347	2.999893	-0.06	0.952	-6.060196	5.700926
Post*Adopt*Construction companies*Smaller Size	**-22.57682**	12.34899	-1.83	**0.068**	-46.78402	1.630372
Post*Adopt* Construction companies*Larger Size	**26.47037**	27.36861	0.97	**0.333**	-27.17914	80.11988
Growth (Total Asset)	.2332142	.0551061	4.23	0.000	.125192	.3412364
Industry	Included					
cons	90.57652	21.40174	4.23	0.000	48.62362	132.5294

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Construction Companies is a dummy variable which equals 1 if a company within construction industry. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.8 Groups (Pension cost/scheme & Intra group loans):

2.8.1 Current Ratio (CR)

Number of obs   =   10,903
Prob > F   =   0.0000
R-squared   =   0.0493

Table 2.8.1: Impact of FRS 102 on CR according to smaller vs. larger Groups

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.0544972	.0792377	-0.69	0.492	-.2098176	.1008231
Adopt	-.086185	.0777426	-1.11	0.268	-.2385747	.0662046
Post*Adopt*SmallerGroups	**-.1805895**	.1045888	-1.73	**0.084**	-.3856025	.0244235
Post*Adopt*LargerGroups	**.3363037**	.1217255	2.76	**0.006 ***	.0976996	.5749079
ROE	-.0021743	.000316	-6.88	0.000	-.0027938	-.0015548
Gearing	-.0041802	.0001479	-28.27	0.000	-.00447	-.0038904
Growth (Total Asset)	-.0000887	.0007559	-0.12	0.907	-.0015705	.0013931
_cons	2.809149	.0661727	42.45	0.000	2.679439	2.93886

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller group is a dummy variable which equals 1 if there are 5 members or less in the group and 0 otherwise. Larger group is a dummy variable which equals 1 if there are more than 5 members in the group and 0 otherwise.

2.8 Groups (Pension cost/scheme & Intra group loans):

2.8.2 Return on Equity (ROE)

Number of obs   =   10,903
Prob > F   =   0.0000
R-squared   =   0.0195

Table 2.8.2: Impact of FRS 102 on ROE according to smaller vs. larger Groups

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.3089063	1.54095	-0.20	0.841	-3.329448	2.711635
Adopt	4.847182	1.631685	2.97	0.003	1.648783	8.045581
Post*Adopt*SmallerGroups	**1.364554**	2.337625	0.58	**0.559**	-3.217616	5.946724
Post*Adopt*LargerGroups	**-4.926489**	2.382331	-2.07	**0.039 **	-9.596291	-.2566874
CR	-.9575063	.1414607	-6.77	0.000	-1.234795	-.6802177
Gearing	.0025127	.0112768	0.22	0.824	-.0195919	.0246173
Growth (Total Asset)	.1792858	.0231091	7.76	0.000	.1339878	.2245838
_cons	20.00696	1.321011	15.15	0.000	17.41754	22.59638

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller group is a dummy variable which equals 1 if there are 5 members or less in the group and 0 otherwise. Larger group is a dummy variable which equals 1 if there are more than 5 members in the group and 0 otherwise.

2.8 Groups (Pension cost/scheme & Intra group loans):

2.8.3 Gearing

Number of obs   =   10,903
Prob > F   =   0.0000
R-squared   =   0.0546

Table 2.8.2: Impact of FRS 102 on Gearing according to smaller vs. larger Groups

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-3.138641	3.658779	-0.86	0.391	-10.31051	4.033231
Adopt	22.82968	3.735114	6.11	0.000	15.50818	30.15118
Post*Adopt*SmallerGroups	**-6.460204**	5.761031	-1.12	**0.262**	-17.75287	4.832464
Post*Adopt*LargerGroups	**11.37092**	5.623578	2.02	**0.043 ****	.3476858	22.39415
CR	-10.51955	1.019939	-10.31	0.000	-12.51881	-8.520281
ROE	.0143589	.0644485	0.22	0.824	-.1119719	.1406897
Growth (Total Asset)	.1392008	.0504848	2.76	0.006	.0402413	.2381603
_cons	95.43573	3.992356	23.90	0.000	87.60999	103.2615

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller group is a dummy variable which equals 1 if there are 5 members or less in the group and 0 otherwise. Larger group is a dummy variable which equals 1 if there are more than 5 members in the group and 0 otherwise.

2.8 Groups (Pension cost/scheme & Intra group loans):

2.8.4 Interest Cover (I Cover)

Number of obs   =   8,126
Prob > F   =   0.0000
R-squared   =   0.0118

Table 2.8.3: Impact of FRS 102 on I Cover according to smaller vs. larger Groups

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	4.760607	4.752789	1.00	0.317	-4.55608	14.07729
Adopt	3.123833	4.130029	0.76	0.449	-4.972084	11.21975
Post*Adopt*SmallerGroups	**-11.44958**	6.254511	-1.83	**0.067**	-23.71002	.8108717
Post*Adopt*LargerGroups	**-3.392207**	6.516835	-0.52	**0.603**	-16.16688	9.382463
Growth (Total Asset)	.2342556	.0553558	4.23	0.000	.125744	.3427672
Industry	Included					
_cons	88.12316	21.27536	4.14	0.000	46.418	129.8283

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Smaller group is a dummy variable which equals 1 if there are 5 members or less in the group and 0 otherwise. Larger group is a dummy variable which equals 1 if there are more than 5 members in the group and 0 otherwise.

2.9 R&D: capitalization choices of Development costs

2.9.1 Current Ratio (CR)

Number of obs = 441 - Prob > F = 0.0014 - R-squared = 0.0555

Table 2.9.1: Impact of FRS 102 on CR according to smaller vs. larger companies with R&D

CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
	Robust					
Post	-.281456	.3119693	-0.90	0.367	-.8946186	.3317065
Adopt	.3326127	.289465	1.15	0.251	-.2363187	.901544
Post*Adopt*R&D*Smaller Size	**2.61e-07**	1.67e-07	1.56	**0.119**	-6.72e-08	5.90e-07
Post*Adopt* R&D*Larger Size	**2.55e-08**	9.09e-08	0.28	**0.779**	-1.53e-07	2.04e-07
ROE	-.0031535	.0013709	-2.30	0.022	-.0058479	-.0004591
Gearing	-.0062267	.0013255	-4.70	0.000	-.008832	-.0036215
Growth (Total Asset)	-.0051837	.003569	-1.45	0.147	-.0121984	.0018311
_cons	3.319129	.2366945	14.02	0.000	2.853916	3.784342

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of research and development item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.9 Companies with (R&D): capitalization choices of Development costs

2.9.2 Return on Equity (ROE)

Number of obs = 441 - Prob > F = 0.0518 - R-squared = 0.0077

Table 2.9.2: Impact of FRS 102 on ROE according to smaller vs. larger companies with R&D

ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
	Robust					
Post	-.590573	6.189663	-0.10	0.924	-12.7561	11.57495
Adopt	.6433547	4.246758	0.15	0.880	-7.703468	8.990177
Post*Adopt*companies with R&D*Smaller Size	**1.94e-06**	7.10e-06	0.27	**0.785**	-.000012	.0000159
Post*Adopt*companies with R&D*Larger Size	**-1.18e-06**	8.52e-07	-1.38	**0.167**	-2.85e-06	4.95e-07
CR	-1.122608	.549779	-2.04	0.042	-2.203176	-.0420411
Gearing	-.0385081	.0526694	-0.73	0.465	-.1420275	.0650113
Growth (Total Asset)	.0566916	.2458856	0.23	0.818	-.4265861	.5399693
_cons	26.09171	4.826926	5.41	0.000	16.6046	35.57883

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of research and development item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.9 Companies with (R&D): <u>capitalization choices of Development costs</u>

2.9.3 Gearing

Number of obs   =   441
Prob > F   =   0.0000
R-squared   =   0.1360

Table 2.9.3: Impact of FRS 102 on Gearing according to smaller vs. larger companies with R&D

	Robust					
Gearing	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-8.963831	10.52191	-0.85	0.395	-29.64434	11.71668
Adopt	11.02805	10.58236	1.04	0.298	-9.771273	31.82737
Post*Adopt*companies with	**.00005**	.0000107	4.69	**0.000 *****	.000029	.0000709
Post*Adopt*companies with	**-5.19e-06**	2.76e-06	-1.88	**0.060**	-.0000106	2.26e-07
CR	-6.182102	2.477735	-2.50	0.013	-11.05202	-1.312187
ROE	-.0940125	.2082338	-0.45	0.652	-.5032899	.3152649
Growth (Total Asset)	.5424245	.2963989	1.83	0.068	-.0401387	1.124988
Tangibility	76.71562	34.29081	2.24	0.026	9.318057	144.1132
_cons	56.25969	16.51144	3.41	0.001	23.80695	88.71244

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of research and development item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

2.9 Companies with (R&D): <u>capitalization choices of Development costs</u>

2.9.4 Interest Cover (I Cover)

Number of obs   =   356
Prob > F   =   0.0480
R-squared   =   0.0141

Table 2.9.4: Impact of FRS 102 on I Cover according to smaller vs. larger companies with R&D

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	26.90132	18.26432	1.47	0.142	-9.020315	62.82295
Adopt	-10.92353	16.01301	-0.68	0.496	-42.41736	20.5703
Post*Adopt*companies with	**6.79e-06**	.000015	0.45	**0.651**	-.0000227	.0000362
Post*Adopt*companies with	**-.0000118**	4.62e-06	-2.55	**0.011 ****	-.0000209	-2.69e-06
Growth (Total Asset)	.3281909	.1888934	1.74	0.083	-.0433179	.6996998
_cons	48.819	13.40603	3.64	0.000	22.45248	75.18552

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. R&D is the real value of research and development item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise. As there is no change in ROE, the change in I Cover might be caused by other transactions such as increase in interest paid on intra group loans.

2.10 Companies with operating lease rentals:

Relationships between different items of **leasing (finance and operating)**:

Results show that there is no reclassification between operating and finance lease, namely, there is no negative correlation either between operating lease rentals and paid on lease, or between operating lease rentals and long-term lease.

. pwcorr did_Leasinglongt did_TotalOperatingLeaseRentals	
did_Le~t did_T~ls	
did_Leasin~t 1.0000	
did_TotalO~s **0.1639** 1.0000	

Correlation coefficient between operating lease rentals and long-term leasing is (0.16) which is, moreover, positive and low.

2.11 Holiday pay (Universities): (there are no enough observations)

But the relationships between accruals and CR will be tested later on in item-based analysis.

3. Items-based analysis (Sub-sections of FRS 102): Overall effect

The purpose of the following analysis is to connect between the impact on financial ratios and the relevant items of the areas of expected effect (sub-sections of FRS 102).

3.1 The impact on Current Ratio (CR):

3.1.1 overseas turnover

Number of ob = 10,685 - Prob > F = 0.0000 - R-squared = 0.0578

Table 3.1.1: The association between CR and companies with overseas turnover

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.1018863	.0588105	-1.73	0.083	-.2171659	.0133933
Adopt	-.1016395	.0593594	-1.71	0.087	-.217995	.0147159
Post*Adopt*companies with Overseas Turnover	**.244897**	.0916386	2.67	**0.008***	.0652683	.4245256
ROE	-.0016694	.000332	-5.03	0.000	-.0023202	-.0010186
Gearing	-.0042108	.0001525	-27.61	0.000	-.0045098	-.0039118
Size	5.67e-09	2.53e-09	2.24	0.025	7.05e-10	1.06e-08
Growth	-.0043469	.0020948	-2.08	0.038	-.0084531	-.0002407
_cons	2.785331	.0651612	42.75	0.000	2.657603	2.913059

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with overseas turnover is a dummy variable which equals 1 if a company has overseas turnover and 0 otherwise.

3.1 The impact on Current Ratio (CR):

3.1.2 Group loans

Number of obs = 4,320 - Prob > F= 0.0000 - R-squared= 0.0711

Table 3.1.2: The association between CR and group loans

	Robust					
CR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.054347	.0842452	0.65	0.519	-.1108169	.2195109
Adopt	.3908261	.0770529	5.07	0.000	.2397628	.5418894
Post*Adopt*Group loans	**-1.25e-08**	5.87e-09	-2.13	**0.033**	-2.40e-08	-1.02e-09
ROE	-.0011662	.0003353	-3.48	0.001	-.0018236	-.0005089
Gearing	-.0039849	.0002002	-19.90	0.000	-.0043774	-.0035923
Size	4.42e-09	2.29e-09	1.93	0.053	-6.52e-11	8.90e-09
_cons	2.418156	.0834777	28.97	0.000	2.254497	2.581815

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group loans is the real value of the item from financial statements.

3.2 The impact on Return on Equity (ROE):

3. 2.1 Group loans

Number of obs   =   3,628
Prob > F   =   0.0000
R-squared   =   0.0271

Table 3. 2.1: The association between ROE and Amortization

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.1434333	1.978116	0.07	0.942	-3.7349	4.021766
Adopt	-.3907185	1.99393	-0.20	0.845	-4.300056	3.518619
Post*Adopt*Amortization	**-.0000126**	3.47e-06	-3.62	**0.000**	-.0000194	-5.75e-06
CR	-.9894512	.2395963	-4.13	0.000	-1.459208	-.5196941
Gearing	-.0332514	.0175782	-1.89	0.059	-.0677155	.0012126
Growth	.2139824	.0469334	4.56	0.000	.1219638	.306001
_cons	26.30721	2.197471	11.97	0.000	21.99881	30.61562

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements.

3.2 The impact on Return on Equity (ROE):

3. 2.2 Revaluation Reserves

Number of obs   =   11,553
Prob > F   =   0.0000
R-squared   =   0.0108

Table 3. 2.2: The association between ROE and Revaluation Reserves

	Robust					
ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-2.427313	1.435382	-1.69	0.091	-5.240906	.3862801
Adopt	2.787115	1.399712	1.99	0.046	.043442	5.530789
Post*Adopt*Companies with Revaluation Reserve	**-9.629491**	2.568381	-3.75	**0.000**	-14.66395	-4.595028
CR	-.7545227	.3123285	-2.42	0.016	-1.36674	-.1423059
Growth	.1697772	.0234711	7.23	0.000	.1237699	.2157846
_cons	22.38226	1.541037	14.52	0.000	19.36157	25.40295

Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise.

All possible expected transactions/items have been tested, however, only two transactions were found have relationships with ROE.

As for the **increase** in ROE, it could be related to revaluation of IPs (which difficult to find the relevant items in FAME data base to test).

Regarding revaluation reserve, it reflects the impact of fair value regardless whether it is related to Investment Properties or to revaluation of other items/assets.

Also, it is not possible, depending on FAME data, to examine the impact of financial instruments (FIs) revaluation under fair value on ROE. However, by using overseas turnover as a proxy for FIs, there is no sig. relationship between overseas turnover and ROE, <u>overall</u>.

Moreover, there is no relationship between ROE and any of the other expected items/transactions such as holiday pay accruals, groups companies, pension costs and borrowing costs, <u>overall</u>.

3.3 The impact on Gearing

All possible expected transactions/items have been tested, however, only two transactions which have relationships with Gearing (pension liabilities and deferred tax liabilities), as follows:

3.3.1 pension liabilities

Number of obs   =   1,558
Prob > F   =   0.0000
R-squared   =   0.2287

Table 3. 3.1: The association between Gearing and Pension Liabilities

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	2.164127	0.575	-5.408608	9.736861
Adopt	60.3995	0.000	42.94321	77.85579
Post*Adopt*Pension Liabilities	**4.35e-06**	**0.020**	6.87e-07	8.01e-06
ROE	.9844098	0.000	.484594	1.484226
CR	-1.97471	0.001	-3.162651	-.7867682
Growth	-.1278382	0.003	-.2119821	-.0436943
_cons	27.50026	0.000	19.98971	35.01082

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Pension Liabilities is the real value of the item from financial statements.
0.00000435

3.3 The impact on Gearing

3.3.2 Deferred Tax

Number of obs   =   5,835
Prob > F   =   0.0000
R-squared   =   0.0635

Table 3. 3.2: The association between Gearing and Deferred Tax

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	-1.71736	0.603	-8.18754	4.752821
Adopt	5.776659	0.084	-.7852216	12.33854
Post*Adopt*Deferred Tax	**9.19e-06**	**0.002**	**3.42e-06**	**.000015**
ROE	.2427874	0.005	.0716628	.4139121
CR	-12.2251	0.000	-16.45692	-7.993272
Growth	.1683825	0.006	.0476426	.2891224
_cons	98.13255	0.000	86.37478	109.8903

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Deferred Tax is the real value of the item from financial statements.

3.4 The impact on Interest Cover (I Cover)

All possible expected transactions/items have been tested, however, only three variables which have relationships with I Cover (companies with revaluation reserves, companies with short term group loans and amortization), as follows:

3.4.1 Companies with Revaluation Reserves (revaluations under fair value)

Number of obs   =   8,126
Prob > F   =   0.0000
R-squared   =   0.0124

Table 3. 4.1: The association between I Cover and Revaluation Reserve

	Robust					
I Cover	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	2.190334	2.966372	0.74	0.460	-3.624516	8.005184
Adopt	1.141609	3.050573	0.37	0.708	-4.838299	7.121516
Post*Adopt*Revaluation Reserve	**-19.99942**	**5.048618**	**-3.96**	**0.000**	**-29.89601**	**-10.10283**
Growth	.2339061	.0552559	4.23	0.000	.1255905	.3422218
Industry	Included					
_cons	89.14472	21.39019	4.17	0.000	47.21445	131.075

Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise.

3.4 The impact on Interest Cover (I Cover)

3.4.2 Intra Group loans

Number of obs   =   3,271
Prob > F   =   0.0063
R-squared   =   0.0013

Table 3. 4.2: The association between I Cover and Group Loans

	Robust			
I Cover	Coef.	P>t	[95% Conf.	Interval]
Post	.0987178	0.984	-9.481301	9.678737
Adopt	3.617437	0.503	-6.976967	14.21184
Post*Adopt*Group Loans Short	**-1.43e-07**	**0.001**	-2.26e-07	-5.96e-08
Growth	.0788487	0.098	-.0144642	.1721616
_cons	49.46435	0.000	39.76372	59.16497

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group loans short is the real value of the item from financial statements.
0.000000143

3.4 The impact on Interest Cover (I Cover)

3.4.3 Amortization

Number of obs   =   3,371
Prob > F   =   0.0000
R-squared   =   0.0045

Table 3. 4.3: The association between I Cover and Amortization

I Cover	Robust Coef.	P>t	[95% Conf.	Interval]
Post	3.483997	0.416	-4.910357	11.87835
Adopt	4.457618	0.304	-4.051296	12.96653
Post*Adopt*Amortization	**-.0000128**	**0.000**	-.0000182	-7.39e-06
Growth	.145376	0.030	.0137577	.2769942
_cons	38.87606	0.000	31.42537	46.32676

Notes: Ratio (dependent variables) = financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets, Size = Total assets and Tangibility = Fixed assets/Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements.

4. Items-based analysis (Sub-sections of FRS 102): Size effect

4.1 The impact on Current Ratio (CR)

All tested variables by size are; Financial instruments – Accruals – Intra group loans.

4.1.1 Overseas Turnover (proxy for Financial Instruments)

Number of obs = 11,048 - Prob > F = 0.0000 - R-squared = 0.0493

Table 4.1.1: The association between CR and Overseas Turnover

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	-.058279	.0573337	-1.02	0.309	-.1706638	.0541046
Adopt	-.09810	.0573957	-1.71	0.087	-.2106068	.0144048
Post*Adopt*Overseas Turnover*Smaller size	**-.05823**	.0978068	-0.60	**0.552**	-.2499561	.1334815
Post*Adopt*Overseas Turnover*Larger size	**.55866**	.1282952	4.35	**0.000**	.3071878	.8101508
ROE	-.002145	.0003174	-6.76	0.000	-.002768	-.0015237
Gearing	-.004094	.0001419	-28.85	0.000	-.0043723	-.003816
_cons	2.80615	.0556194	50.45	0.000	2.697131	2.915179

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.1 The impact on Current Ratio (CR)

4.1.2 Accruals (proxy for holiday pay accruals)

Number of obs =10,643 - Prob > F = 0.0000 - R-squared = 0.0551

Table 4.1.2: The association between CR and Accruals

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.0895455	.0531488	1.68	0.092	-.0146361	.193727
Adopt	.022983	.0541666	0.42	0.671	-.0831937	.1291598
Post*Adopt*Accruals*Smaller size	**-5.65e-07**	4.43e-08	-12.73	**0.000**	-6.51e-07	-4.78e-07
Post*Adopt*Accruals*Larger size	**-8.59e-10**	1.48e-08	-0.06	**0.954**	-2.99e-08	2.81e-08
ROE	-.0019787	.0003118	-6.35	0.000	-.0025899	-.0013675
Gearing	-.0041453	.0001419	-29.20	0.000	-.0044235	-.003867
_cons	2.721164	.0555269	49.01	0.000	2.612321	2.830008

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Accruals is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.1 The impact on Current Ratio (CR)

4.1.3 Group Loans Short Term

Number of obs = 4,320   -   Prob > F = 0.0000   -   R-squared = 0.0631

Table 4.1.3: The association between CR and short-term group loans

CR	Robust Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Post	.1268877	.090014	1.41	0.159	-.0495861	.3033615
Adopt	.4530307	.0791254	5.73	0.000	.2979043	.6081571
Post*Adopt*Group Loans Short	**-3.79e-07**	4.50e-08	-8.44	**0.000**	-4.68e-07	-2.91e-07
Post*Adopt*Group Loans Short	**-3.53e-09**	1.62e-09	-2.18	**0.029**	-6.71e-09	-3.60e-10
ROE	-.0012395	.0003589	-3.45	0.001	-.0019432	-.0005358
Gearing	-.0038546	.0001976	-19.50	0.000	-.0042421	-.0034672
_cons	2.439758	.0819313	29.78	0.000	2.279131	2.600386

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group Loans Short is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.2 The impact on Return on Equity (ROE)

All tested variables are; companies with IPs activities – Real Estate companies – Companies with revaluation reserves – Pension costs – Companies with acquisition and disposal – Amortization – Group loans short term – Construction companies – Companies with overseas turnover – Accruals. However, only three variables which have relationships with ROE (companies with revaluation reserves, accruals and amortization), as follows:

4.2.1 Revaluations under fair value (dummy variable: companies with RR vs. companies without RR)

Number of obs = 10,685   -   Prob > F = 0.0000   -   R-squared = 0.0236

Table 4.2.1: The association between ROE and companies with revaluation reserves

ROE	Robust Coef.	P>t	[95% Conf.	Interval]
Post	.700898	0.542	-1.554005	2.955801
Adopt	3.98523	0.001	1.739802	6.230659
Post*Adopt*companies with revaluation reserves*Smaller size	**-4.821906**	**0.015 ****	-8.717633	-.9261802
Post*Adopt*companies with revaluation reserves*Smaller size	**-12.491**	**0.000 *****	-15.3818	-9.6002
CR	-.8512207	0.000	-1.146645	-.5557964
Gearing	.0004494	0.968	-.0218471	.022746
Growth	.2942501	0.000	.2318199	.3566802
_cons	19.33976	0.000	17.00386	21.67565

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.2 The impact on Return on Equity (ROE)

4.2.2 Amortization

Number of obs   =   3,549
Prob > F   =   0.0000
R-squared   =   0.0415

Table 4.2.2: The association between ROE and amortization

	Robust			
ROE	Coef.	P>t	[95% Conf.	Interval]
Post	2.62647	0.210	-1.476311	6.72925
Adopt	-.7721517	0.707	-4.794975	3.250672
Post*Adopt*Amortization*Smaller size	**-.0000129**	**0.530**	-.0000531	.0000274
Post*Adopt*Amortization*Larger size	**-.0000134**	**0.000 *****	-.0000202	-6.55e-06
CR	-.7428781	0.000	-1.150654	-.3351019
Gearing	-.0375979	0.037	-.0729827	-.002213
Growth	.4205988	0.000	.2981809	.5430168
_cons	23.87052	0.000	19.54737	28.19367

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.2 The impact on Return on Equity (ROE)

4.2.3 Overseas Turnover (proxy for Financial Instruments)

Number of obs   =   10,685
Prob > F   =   0.0000
R-squared   =   0.0228

Table 4.2.3: The association between ROE and companies with overseas turnover

	Robust			
ROE	Coef.	P>t	[95% Conf.	Interval]
Post	.9702508	0.418	-1.378667	3.319169
Adopt	4.224713	0.000	1.852512	6.596913
Post*Adopt*companies with overseas turnover*Smaller size	**-3.188208**	**0.197**	-8.033708	1.657292
Post*Adopt*companies with overseas turnover*Larger size	**-4.320758**	**0.065 ***	-8.913617	.2721005
CR	-.8133913	0.000	-1.106157	-.5206256
Gearing	.0004348	0.970	-.021863	.0227325
Growth	.2938334	0.000	.2313801	.3562867
_cons	19.10894	0.000	16.7059	21.51198

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.2 The impact on Return on Equity (ROE)

4.2.4 Accruals & deferred income (proxy for holiday pay accruals and expenses)

Number of obs = 10,294 - Prob > F = 0.0000 - R-squared = 0.0276

Table 4.2.4: The association between ROE and companies with accruals

ROE	Robust Coef.	P>t	[95% Conf.	Interval]
Post	-1.41664	0.216	-3.661504	.8282233
Adopt	1.945136	0.100	-.3725032	4.262775
Post*Adopt*Accruals*Smaller size	**.0000122**	**0.000 *****	6.00e-06	.0000184
Post*Adopt*Accruals*Larger size	**-9.37e-07**	**0.131**	-2.15e-06	2.78e-07
CR	-.8449003	0.000	-1.153482	-.5363181
Gearing	.0025575	0.832	-.0210884	.0262034
Growth	.2984627	0.000	.2339354	.3629901
_cons	20.35036	0.000	17.98439	22.71633

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Accruals is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.3 The impact on Gearing

All tested variables are; companies with investment property activities – Real Estate companies – companies with revaluation reserves – amortization – companies with overseas turnover – deferred tax liabilities – pension liabilities.

4.3.1 Companies with investment properties activities

Number of obs = 10,717 - Prob > F = 0.0000 - R-squared= 0.0545

Table 4.3.1: The association between Gearing and Companies with investment properties

Gearing	Robust Coef.	P>t	[95% Conf.	Interval]
Post	.1463049	0.956	-5.013602	5.306212
Adopt	28.19181	0.000	22.65963	33.724
Post*Adopt*companies with investment property activity*Smaller size	**-46.97534**	**0.000 *****	-72.6406	-21.31009
Post*Adopt*companies with investment property activity*Larger size	**53.09512**	**0.220**	-31.81302	138.0033
CR	-10.17936	0.000	-12.12513	-8.233595
Growth	.1457657	0.015	.0277631	.2637684
Tangibility	15.5594	0.001	6.099984	25.01881
_cons	86.01534	0.000	77.20572	94.82495

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Companies with investment properties is a dummy variable which equals to 1 if an company has investment property activity (for its own, not managing on behalf of others) and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.3 The impact on Gearing

4.3.2 Real Estate Companies

Number of obs = 10,685 - Prob > F = 0.0000 - R-squared = 0.0543

Table 4.3.2: The association between Gearing and Companies with investment properties

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	-.141058	0.957	-5.284018	5.001902
Adopt	27.71813	0.000	22.19213	33.24412
Post*Adopt*Real Estate companies*Smaller size	**-45.80048**	**0.049 ****	-91.41287	-.1880879
Post*Adopt*Real Estate companies*Larger size	**47.83396**	**0.231**	-30.49084	126.1588
CR	-10.13446	0.000	-12.09892	-8.170002
ROE	.0159414	0.813	-.1159524	.1478351
Growth	.145795	0.019	.0234911	.268099
Tangibility	17.07606	0.001	6.90568	27.24644
_cons	85.00718	0.000	75.04311	94.97126

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Real estate companies is according to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate Companies is a dummy variable which equals to 1 if an company has the aforementioned codes and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.3 The impact on Gearing

4.3.3 Companies with revaluation reserves (proxy for the revaluation under fair value)

Number of obs = 10,685 - Prob > F = 0.0000 - R-squared = 0.0546

Table 4.3.3: The association between Gearing and Companies with revaluation reserves

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	1.288908	0.633	-4.002815	6.58063
Adopt	29.20402	0.000	23.48682	34.92122
Post*Adopt*Companies with revaluation reserves*Smaller size	**-22.98372**	**0.008 *****	-40.01138	-5.956065
Post*Adopt*Companies with revaluation reserves*Larger size	**-9.536378**	**0.222**	-24.84006	5.767299
CR	-10.1649	0.000	-12.13405	-8.195739
ROE1	.0155322	0.817	-.1162914	.1473558
Growth	.1440591	0.021	.0216981	.2664201
Tangibility	18.49963	0.000	8.287806	28.71146
_cons	83.67996	0.000	73.69948	93.66044

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.3 The impact on **Gearing**

4.3.4 Overseas Turnover (proxy for financial instruments)

Number of obs   =   10,717
Prob > F   =   0.0000
R-squared   =   0.0544

Table 4.3.4: The association between Gearing and Companies with Overseas Turnover

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	2.723599	0.354	-3.039149	8.486348
Adopt	30.36722	0.000	24.33071	36.40372
Post*Adopt*Companies with Overseas Turnover*Smaller size	**-7.89695**	**0.173**	-19.26841	3.474506
Post*Adopt*Companies with Overseas Turnover*Smaller size	**-9.638706**	**0.076**	-20.26934	.9919255
CR	-10.14013	0.000	-12.08066	-8.199593
Growth	.1420304	0.018	.0239365	.2601243
Tangibility	15.21522	0.002	5.764492	24.66594
_cons	84.75358	0.000	75.86422	93.64294

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Company with Overseas Turnover is a dummy variable which equals 1 if a company has Overseas Turnover and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.3 The impact on **Gearing**

4.3.5 Deferred tax liabilities

Number of obs   =   5,835
Prob > F   =   0.0000
R-squared   =   0.0636

Table 4.3.5: The association between Gearing and deferred tax

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	-2.394513	0.486	-9.131977	4.34295
Adopt	5.218546	0.133	-1.581387	12.01848
Post*Adopt*Deferred tax liabilities*Smaller size	**.0000311**	**0.355**	-.0000348	.0000971
Post*Adopt*Deferred tax liabilities*Larger size	**9.21e-06**	**0.002 *****	3.45e-06	.000015
CR	-12.19575	0.000	-16.43048	-7.961025
ROE	.2422372	0.006	.0710062	.4134683
Growth	.1688141	0.006	.0479386	.2896895
_cons	98.43401	0.000	86.70547	110.1626

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Deferred Tax liability is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.3 The impact on Gearing

4.3.6 Pension Liabilities

*Number of obs = 1,559 - Prob > F = 0.0000 - R-squared = **0.2297***

Table 4.3.6: The association between Gearing and Pension liabilities

	Robust			
Gearing	Coef.	P>t	[95% Conf.	Interval]
Post	1.729104	0.666	-6.123472	9.58168
Adopt	59.43018	0.000	42.50159	76.35876
Post*Adopt*Pension liabilities*Smaller size	**.000037**	**0.001 *****	.000015	.000059
Post*Adopt*Pension liabilities*Larger size	**4.19e-06**	**0.021 ****	6.40e-07	7.74e-06
CR	-1.941866	0.001	-3.118873	-.7648597
ROE	.883291	0.000	.3893221	1.37726
Growth	-.1334419	0.095	-.2903072	.0234233
_cons	26.30235	0.000	18.24073	34.36398

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Pension liability is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.4 The impact on Interest Cover (I Cover)

All tested variables are; companies with investment property activities – Real Estate companies – Companies with revaluation reserves – Pension costs – Amortization – Group loans short term – Construction companies – Companies with overseas turnover – Accruals. Of those, there are 5 variables which have relationships with I Cover (companies with investment property activities – Real Estate companies – Companies with revaluation reserves, Group loans short term and amortization), as follows:

4.4.1 Companies with investment property activity

Number of obs = 7,942 - Prob > F = 0.0000 - R-squared = 0.0086

Table 4.4.1: The association between I Cover and companies with investment property

	Robust			
I Cover	Coef.	P>t	[95% Conf.	Interval]
Post	.3005431	0.917	-5.352814	5.9539
Adopt	-.4277675	0.887	-6.319022	5.463486
Post*Adopt*companies with investment property*Smaller size	**80.02413**	**0.434**	-120.6637	280.7119
Post*Adopt*companies with investment property*Larger size	**-33.29802**	**0.020 ****	-61.43606	-5.159987
Growth	.1014876	0.053	-.0013744	.2043497
Industry	Included			
Cons	18.6		0.27	

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Companies with investment properties is a dummy variable which equals to 1 if an entity has investment property activity (for its own, not managing on behalf of others) and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.4 The impact on Interest Cover (I Cover)

4.4.2 Real Estate Companies

Number of obs   =   7,942
Prob > F   =   0.0000
R-squared   =   0.0082

Table 4.4.2: The association between I Cover and Real Estate companies

	Robust			
I Cover	Coef.	P>t	[95% Conf.	Interval]
Post	.3872017	0.893	-5.273481	6.047884
Adopt	-.3710414	0.902	-6.267557	5.525475
Post*Adopt*Real Estate companies*Smaller size	**-42.30227**	**0.000 *****	**-51.3488**	**-33.25574**
Post*Adopt*Real Estate companies*Larger size	**-12.4385**	**0.476**	**-46.62839**	**21.75139**
Growth	.1007172	0.055	-.0022852	.2037196
Industry	Included			
Cons	18.5	0.27		

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Real estate companies is according to (Code: 681 & 682 in FAME data base). These are companies that manage their own properties (not on behalf of others). Real Estate Companies is a dummy variable which equals to 1 if an company has the aforementioned codes and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.4 The impact on Interest Cover (I Cover)

4.4.3 Companies with revaluation reserves

Number of obs   =   7,942
Prob > F   =   0.0000
R-squared   =   0.0092

Table 4.4.3: The association between I Cover and Companies with revaluation reserves

	Robust			
I Cover	Coef.	P>t	[95% Conf.	Interval]
Post	2.341106	0.435	-3.533724	8.215937
Adopt	1.141182	0.710	-4.879398	7.161763
Post*Adopt*Companies with revaluation reserves*Smaller size	**-17.16349**	**0.018 ****	**-31.40003**	**-2.926952**
Post*Adopt*Companies with revaluation reserves*Larger size	**-21.33429**	**0.001 *****	**-33.82164**	**-8.846937**
Growth	.0972913	0.063	-.0053666	.1999492
Industry	Included			
Cons	19.4	0.25		

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. A company with revaluation reserves is a dummy variable which equals 1 if a company has revaluation reserve and 0 otherwise. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.4 The impact on Interest Cover (**I Cover**)

4.4.4 Amortization

Number of obs   =   3,299
Prob > F   =   0.0000
R-squared   =   0.0135

Table 4.4.4: The association between I Cover and Amortization

	Robust			
I Cover	Coef.	P>t	[95% Conf.	Interval]
Post	4.916087	0.268	-3.779791	13.61197
Adopt	3.677867	0.421	-5.281839	12.63757
Post*Adopt*Amortization*Smaller size	**-.00005**	**0.001 ***	-.0000796	-.0000204
Post*Adopt*Amortization*Larger size	**-.000015**	**0.000 ***	-.0000207	-9.35e-06
Growth	.1399879	0.068	-.0104226	.2903984
Industry	Included			
cons	20.7	0.275		

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Amortization is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

4.4 The impact on Interest Cover (**I Cover**)

4.4.5 Group Loans (short-term)

Number of obs   =   3,298
Prob > F   =   0.0000
R-squared   =   0.0142

Table 4.4.5: The association between I Cover and intra group loans

	Robust			
I Cover	Coef.	P>t	[95% Conf.	Interval]
Post	2.056836	0.673	-7.498195	11.61187
Adopt	3.08571	0.577	-7.762602	13.93402
Post*Adopt*group loans short term*Smaller size	**-3.84e-06**	**0.004 ***	-6.41e-06	-1.26e-06
Post*Adopt*group loans short term*Larger size	**-1.69e-07**	**0.000 ***	-2.58e-07	-8.06e-08
Industry	Included			
_cons	12.12003	0.105	-2.534574	26.77463

Financial ratios from FAME data base: CR = Current assets/Current liabilities, ROE = Profit (Loss) before Tax/Shareholders' Fund, Gearing = (Short Term Loans & Overdrafts+ Long Term Liabilities)/ Shareholders' Funds and Interest Cover = Profit (Loss) before Interest/Interest Paid. Control variables: regarding the financial ratios are as mentioned above, as for Growth = change in Total assets. Post = a dummy variable which equals 1 for the year of FRS 102 adoption (2015), and 0 otherwise. Adopt = a dummy variable which equals 1 for FRS 102 adopters, and 0 otherwise. Group Loans Short is the real value of the item from financial statements. Smaller size is a dummy variable which equals 1 if total assets < £ 8,800,000 and equal 0 otherwise. Larger size is a dummy variable that equals to 1 if total assets ≥ £ 8,800,000 and equal 0 otherwise.

As expected, it might be because of the increases in interest paid on intra group loans.

Appendix 3: Letter of ethical approval

4 August 2016

LETTER OF APPROVAL

Applicant: Mr Mohamed Abbas

Project Title: Interviews with professional practicing accountants

Reference: 3579-LR-Aug/2016- 3682-1

Dear Mr Mohamed Abbas

The Research Ethics Committee has considered the above application recently submitted by you.

The Chair, acting under delegated authority has agreed that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that the conditions of approval set out below are followed:

- The agreed protocol must be followed. Any changes to the protocol will require prior approval from the Committee by way of an application for an amendment.

Please note that:

- Research Participant Information Sheets and (where relevant) flyers, posters, and consent forms should include a clear statement that research ethics approval has been obtained from the relevant Research Ethics Committee.
- The Research Participant Information Sheets should include a clear statement that queries should be directed, in the first instance, to the Supervisor (where relevant), or the researcher. Complaints, on the other hand, should be directed, in the first instance, to the Chair of the relevant Research Ethics Committee.
- Approval to proceed with the study is granted subject to receipt by the Committee of satisfactory responses to any conditions that may appear above, in addition to any subsequent changes to the protocol.
- The Research Ethics Committee reserves the right to sample and review documentation, including raw data, relevant to the study.
- [delete for staff applications] You may not undertake any research activity if you are not a registered student of Brunel University or if you cease to become registered, including abeyance or temporary withdrawal. As a deregistered student you would not be insured to undertake research activity. Research activity includes the recruitment of participants, undertaking consent procedures and collection of data. Breach of this requirement constitutes research misconduct and is a disciplinary offence.

References

Abadie, A. (2005). Semiparametric difference-in-differences estimators. *The Review of Economic Studies*, *72*(1), 1-19.

ACCA. (n.d) FRS 102 – making the transition to new UK GAAP, technical factsheet 181, 1-30.

Accountancy Magazine (2013), 'Intercompany Loans', *Accountancy Magazine*, July, pp. 60-61.

Accountancy Magazine (2014), 'Impact on the bottomline', *Accountancy Magazine*, July, pp. 51-53.

Accountancy Magazine (2015a), 'Investment Properties', *Accountancy Magazine*, November, pp. 61-63.

Accountancy Magazine (2015b), 'The new housing SORP opens doors to complex valuations due to FRS 102', *Accountancy Magazine*, May, pp. 61-63.

Accountancy Magazine (2016), 'FRS 102: Ten Things You Need To Know', *Accountancy Magazine*, January, pp. 60-63.

Accountancy Magazine (2016b), 'Pension Plans and Deficits', *Accountancy Magazine*, October, pp. 48-50.

Accounting Standards Board (ASB) (2012) "Key Facts, FRED 46, 47 and 48", Available at: http://www.frc.org.uk/Our-Work/Publications/ASB/Revised-FRED-The-Future-of-Financial-Reporting-(1)/The-Key-Facts-FREDs-46,-47-and-48-(January-2012).aspx

Agarwal, V. and Taffler, R.J., (2007) 'Twenty-five years of the Taffler z-score model: Does it really have predictive ability?'. *Accounting and Business Research*, *37*(4), pp.285-300.

Agca, A. and Aktas, R., (2007). First time application of IFRS and its impact on financial ratios: a study on Turkish listed firms. *Problems and Perspectives in Management*, 5(2), p.99.

Ahmed, A.S., Neel, M. and Wang, D., (2013) 'Does mandatory adoption of IFRS improve accounting quality?', Preliminary evidence. *Contemporary Accounting Research*, *30*(4), pp.1344-1372.

Aisbitt, S., (2006) 'Assessing the effect of the transition to IFRS on equity: the case of the FTSE 100', *Accounting in Europe*, 3(1), pp.117-133.

Ali, A., Akbar, S. and Ormrod, P., (2016) 'March. Impact of international financial reporting standards on the profit and equity of AIM listed companies in the UK', *Accounting Forum* (Vol. 40, No. 1, pp. 45-62). Elsevier.

Ali, A., Akbar, S., Ormrod, P. and Shah, S.Z.A., (2016) 'The Impact and Implications of International Financial Reporting Standards in the United Kingdom: Evidence from the Alternative Investment Market', *Australian Accounting Review*, *26*(4), pp.360-375.

Allee, K. D., & Yohn, T. L. (2009) 'The demand for financial statements in an unregulated environment', *The Accounting Review*, *84*(1), 1–25. http://doi.org/10.2308/aecr.2009.84.1.1

ASB. (2009). Consultaion Paper Policy Proposal : the future of the UK GAAP (2009).

Baker, S.E., Edwards, R. and Doidge, M., (2012). How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research.

Baldarelli, M.G., Demartini, P., Mošnja-Škare, L. and Paoloni, P., 2012. Accounting Harmonization for SME-S in Europe: Some Remarks on IFRS for SME-S and Empirical Evidences. *Ekonomska istraživanja*, (1), pp.1-26.

Ball, R., 2006. International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and business research*, *36*(sup1), pp.5-27.

Barth, M.E., Landsman, W.R. and Lang, M.H., (2008) 'International accounting standards and accounting quality. *Journal of accounting research*, 46(3), pp.467-498.

Bartov, E., Goldberg, S. R., & Kim, M. (2005). Comparative Value Relevance Among German, U.S., and International Accounting Standards: A German Stock Market Perspective. *Journal of Accounting, Auditing & Finance*, *20*(2), 95–119. http://doi.org/10.1177/0148558X0502000201

BDO (2014) http://www.bdo.ie/getattachment/9fb9754a-bb47-4092-8576-cd1deb59fb24/FRS-102-Retail-and-Property.pdf.aspx

Bertoni, M., & Rosa, B. De. (2010). the Evolution of Financial Reporting for Private Entities, 1–12.

Blue-Ribbon Panel on Standard Setting for Private Companies Repor (2011). Blue-Ribbon Panel on Standard Setting for Private Companies Report to the Board of Trustees of the Financial Accounting Foundation, (January). http://www.accountingfoundation.org/cs/BlobServer?blobcol=urldata&blobtable=MungoBlobs&blobkey=id&blobwhere=1175822037729&blobheader=application%2Fpdf

Buferna, F.M., Bangassa, K. and Hodgkinson, L., (2005). Determinants of capital structure: evidence from Libya (Vol. 8). University of Liverpool.

Cairns, D., Massoudi, D., Taplin, R., & Tarca, A. (2011). IFRS fair value measurement and accounting policy choice in the United Kingdom and Australia. *British Accounting Review*, *43*(1), 1–21. http://doi.org/10.1016/j.bar.2010.10.003

Callao, S., Jarne, J.I. and Laínez, J.A., (2007) 'Adoption of IFRS in Spain: Effect on the comparability and relevance of financial reporting. *Journal of International Accounting, Auditing and Taxation*, *16*(2), pp.148-178.

Chand, P., Patel, A., & White, M. (2015). Adopting International Financial Reporting Standards for Small and Medium-sized Enterprises. *Australian Accounting Review*, *25*(2), 139–154. http://doi.org/10.1111/auar.12067

Cho, M.H., .(1998) 'Ownership structure, investment, and the corporate value: an empirical analysis', *Journal of financial economics*, 47(1), pp.103-121.

Christensen, H.B., Lee, E. and Walker, M., (2007) 'Cross-sectional variation in the economic consequences of international accounting harmonization: The case of mandatory IFRS adoption in the UK. *The International Journal of Accounting*, 42(4), pp.341-379.

Christensen, H.B., Lee, E. and Walker, M., (2009) 'Do IFRS reconciliations convey information? The effect of debt contracting. *Journal of Accounting Research*, *47*(5), pp.1167-1199.

Collis, J. (2003). Financial reporting by small companies in the UK: the demand for abbreviated accounts.: The Demand for Abbreviated Accounts.

Collis, J. (2008). Directors ' Views on Accounting and Auditing Requirements for Smes. *Department of Business, Enterprise and Regulatory Reform, UK*, *2008*(November), 1–68. Retrieved from http://www.bis.gov.uk/files/file50491.pdf

Collis, J. (2012). Determinants of voluntary audit and voluntary full accounts in micro- and non-micro small companies in the UK. *Accounting and Business Research*, *42*(4), 441–468. http://doi.org/10.1080/00014788.2012.667969

Collis, J. and Hussey, R. (2009). *Business research: A practical guide for undergraduate and postgraduate students*. Palgrave macmillan.

Collis, J. and Hussey, R., 2013. *Business research: A practical guide for undergraduate and postgraduate students*. Palgrave Macmillan.

Collis, J., & Jarvis, R. (2002). Financial information and the management of small private companies. *Journal of Small Business and Enterprise Development*, *9*(2), 100–110. http://doi.org/10.1108/14626000210427357

Collis, J., (2010) 'Audit exemption and the demand for voluntary audit: A comparative study of the UK and Denmark', *International journal of auditing*, 14(2), pp.211-231.

Collis, J., Jarvis, R. and Skerratt, L. (2017) 'The role and current status of IFRS in the completion of national accounting rules–Evidence from the UK,' *Accounting in Europe*, pp.1-13.

Collis, J., Jarvis, R., Page, M., Holt, A., Fatoki, O. and Aregbeshola, A., 2016. Role of financial and other information in trade credit decisions in SMEs: An international study.

Communities, C. of the E. (2013). The activities of the European Union for small and medium-sized enterprises (SMEs) SME Envoy Report. *Journal of Chemical Information and Modeling*, *53*(9), 1689–1699. http://doi.org/10.1017/CBO9781107415324.004

Companies Act 2006. The Companies Act 2006 (Amendment) (Accounts and Reports) Regulations 2008 (2008). Retrieved from http://www.legislation.gov.uk/uksi/2008/393/pdfs/uksi_20080393_en.pdf

Companies House. (2016). Life of a Company - Part 1 annual requirements.

Dang-Duc, S. (2011). Compliance with accounting standards by SMEs in transitional economies: evidence from Vietnam. *Journal of Applied Accounting Research*, *12*(December), 96–107. http://doi.org/10.1108/09675421111160673

Daske, H., Hail, L., Leuz, C. and Verdi, R., (2008) 'Mandatory IFRS reporting around the world: Early evidence on the economic consequences, *Journal of accounting research*, 46(5), pp.1085-1142.

Daske, H., L. Hail, C. Leuz, and R. Verdi. 2011. Adopting a label: Heterogeneity in the economic consequences around voluntary IAS/IFRS adoptions. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id¼41864771

Deaconu, A., & Buiga, A. (2012). SMEs FINANCIAL REPORTING : ATTITUDES TOWARDS IFRS FOR SMEs, *57*(1).

DeFond, M., Hu, X., Hung, M., & Li, S. (2011) 'The impact of mandatory IFRS adoption on foreign mutual fund ownership: The role of comparability', *Journal of Accounting and Economics*, 51(3), 240-258.

Deloitte (2013) https://www.iasplus.com/en-gb/publications/uk/point-of-view/2013/new-uk-gaap-real-estate

Department for Business, I. and S. (2015). Statistical Release Business Population Estimates for the Uk and Regions 2015, 1–16. Retrieved from https://www.gov.uk/government/statistics/business-population-estimates-2015

Di Pietra, R., Evans, L., Chevy, J., Cisi, M., Eierle, B., Jarvis, R. and European Accounting Association's Financial Reporting Standards Committee, (2008) 'Comment on the IASB's Exposure Draft 'IFRS for Small and Medium-Sized Entities', *Accounting in Europe*, 5(1), pp.27-47.

DiCicco Bloom, Barbara, and Benjamin F. Crabtree. (2006) "The qualitative research interview." *Medical education* 40, no. 4: 314-321.

Diggle, G., & Nobes, C. (1994). European rule-making in accounting: the seventh directive as a case study. *Accounting and business research*, 24(96), 319-333.

Doukakis, L. C. (2014). The effect of mandatory IFRS adoption on real and accrual-based earnings management activities. *Journal of Accounting and Public Policy*, *33*(6), 551–572. http://doi.org/10.1016/j.jaccpubpol.2014.08.006

Drever, M. and Hutchinson, P., (2007) 'Industry Differences In The Determinants Of The Liquidity Of Australian Small And Medium Sized Enterprises', *Small Enterprise Research*, 15(1), pp.60-76.

EC. (2011). *COMMISSION STAFF WORKING PAPER Part I IMPACT ASSESSMENT. Brussels, 25.10.2011 SEC(2011) 1289 final* (Vol. 147). Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/19097363

EFAA. (2010). Comparison of IFRS for SMEs and national GAAP of nine European countries. Retrieved December 27, 2015, from http://www.efaa.com/files/pdf/Publications/Annual reports/EFAA Comparison IFRS for SMEs - National GAAPs 2010.pdf

European Council. (1978). Fourth Council Directive 78/660/EEC, (L), 11–31.

European Commission, 2010. Summary report of the responses to the Commission's consultation on the International Financial Reporting Standard for Small and Medium-sized   Entities. http://ec.europa.eu/internal_market/accounting/docs/ifrs/2010-05-31_ifrs_sme_consultation_summary_en.pdf

European Commission. (2015). *User guide to the SME definition*. http://doi.org/10.2873/782201

Evans, L., Gebhardt, G., Hoogendoorn, M., Marton, J., Di Pietra, R., Mora, A., Thinggård, F., Vehmanen, P. and Wagenhofer, A., (2005) 'Problems and opportunities of an international financial reporting standard for small and medium-sized entities', The EAA FRSC's comment on the IASB's discussion paper. *Accounting in Europe*, *2*(1), pp.23-45.

Fearnley, S., & Hines, T. (2007). How IFRS has Destabilised Financial Reporting for UK Non-Listed Entities. *Journal of Finance Regulation and Compliance*, *15*(4), 394–407. http://doi.org/10.1108/13581980710835254

Feltham, D. K. (2013). The Adoption of International Accounting Standards for Small- and Medium-Sized Entities. Proquest.

Florou, A. and Pope, P.F., (2012) 'Mandatory IFRS adoption and institutional

investment decisions. *The Accounting Review*, 87(6), pp.1993-2025.

FRC (,n.d) https://www.frc.org.uk/accountants/accounting-and-reporting-policy/uk-accounting-standards/standards-in-issue/frs-26-(ias-39)-financial-instruments-recognition

FRC (2012a) FRS 100 Application of Financial Reporting Requirements, (November).

FRC (2012b) FRS 101 Reduced Disclosure Framework Disclosure exemptions from EU-adopted IFRS for qualifying entities, (November).

FRC (2013) Impact Assessment: FRS 100 Application of Financial Reporting Requirements FRS 101 Reduced Disclosure Framework FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland, March. https://www.frc.org.uk/Our-Work/Publications/Accounting-and-Reporting-Policy/Impact-Assessment-FRS-100,-FRS-101-and-FRS-102.pdf

FRC (2013a) FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland, (March).

FRC (2013b) Impact assessment: FRS 100 Application of Financial Reporting Requirements FRS 101 Reduced Disclosure Framework FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland, March. https://www.frc.org.uk/getattachment/392a2af9-04d6-4b9f-b2fe-7bc1a8e6b155/FRS-100-101-102-Impact-assessment.pdf

FRC (2013c) Accounting and Reporting Policy FRS 102 Staff Education Note 6, Leases.

FRC (2013d) Accounting and Reporting Policy FRS 102 Staff Education Note 11: Foreign exchange contracts.

FRC (2013e) Accounting and Reporting Policy FRS 102 Staff Education Note 9: Short-term employee benefits and termination benefits.

FRC (2013f) Accounting and Reporting Policy FRS 102 Staff Education Note (SEN) 10 Employee benefits Defined benefit plans.

FRC (2013g) Feedback Statement: FRED 46 to 48, (March).

FRC (2013h) FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland, (March).

FRC (2013i). Development of new UK GAAP up to March 2013. Available at https://www.frc.org.uk/Our-Work/Codes-Standards/Accounting-and-Reporting-Policy/New-UK-GAAP.aspx

FRC (2014a) Amendments to FRS 102 The Financial Reporting Standard Republic of Ireland Basic financial instruments and Hedge accounting, (July).

FRC (2014b) FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland, (August), 1-366.

FRC (2015) FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland, (September), 1–384. Retrieved from https://frc.org.uk/Our-Work/Publications/Accounting-and-Reporting-Policy/FRS-102-The-Financial-Reporting-Standard-applicabl.pdf

FRC (2015a) Accounting and Reporting Policy FRS 102 Staff Education Note 16: Financing transactions.

FRC (2015b) FRS 105 The Financial Reporting Standard applicable to the Micro-entities Regime, (July).

FRC (2015c) Amendments to FRS 102 The Financial Reporting Standard Small entities and other minor amendments, (July).

FRC (2016) Amendments to FRS 102 The Financial Reporting Standard Republic of Ireland Fair value hierarchy disclosures, (March).

FRC (SSAP 13) http://frc.org.uk/Our-Work/Publications/ASB/SSAP-13-Accounting-for-research-and-development-File.pdf

Gaston, S.C., García, C.F., Jarne, J.I.J. and Gadea, J.A.L., (2010) ;IFRS adoption in Spain and the United Kingdom: Effects on accounting numbers and relevance. *Advances in Accounting*, *26*(2), pp.304-313.

Georgiou, G. (2010). The IASB standard-setting process: Participation and perceptions of financial statement users. *British Accounting Review*, *42*(2), 103–118. http://doi.org/10.1016/j.bar.2010.02.003

Goddard, J., Tavakoli, M., and Wilson, J., (2005) 'Determinants of profitability in European manufacturing and services: evidence from a dynamic panel model', *Applied Financial Economics*, 15:18, 1269-1282.

Grant Thornton. (2013). How will the transition from current UK GAAP to FRS 102 from January 2015 impact on my company's accounts? Retrieved January 2, 2016, from https://www.grantthornton.co.uk/globalassets/1.-member-firms/united-kingdom/pdf/publication/2013/impact-of-frs-102.pdf

Grant Thornton. (2014). An Introduction to FRS 102 for Higher and Further Education, (December).

Grant Thornton. (2014b). New UKGAAP, Transition to FRS 102: what are the time critical issues?

Gross, C., (2016) 'The Effect of the German Accounting Law Modernization Act on the Comparability of Private Local GAAP and IFRS Firms', *Schmalenbach Business Review*, *17*(3-4), pp.423-460.

Gupta, J., Gregoriou, A. and Healy, J., (2015) 'Forecasting bankruptcy for SMEs using hazard function: To what extent does size matter?. *Review of Quantitative Finance and Accounting*, 45(4), pp.845-869.

Haller, A., Ernstberger, J. and Froschhammer, M., (2009) 'Implications of the mandatory transition from national GAAP to IFRS—Empirical evidence from Germany', *Advances in Accounting*, *25*(2), pp.226-236

Hawsons. (n.d.). FRS 102 Guide: A practical guide to the biggest change in accounting for a generation. Retrieved January 2, 2016, from http://www.hawsons.co.uk/wp-content/uploads/2015/04/FRS-102-brochure-Final-PDF.pdf?a76d58

Hinterdobler, T. (2009). Alignment of accounting for SMEs and handicraft enterprises Criteria , scope and limits for their regulation in the European context

HOLTHAUSEN, R. W. (2015). Standards , Financial Accounting Outcomes , Reporting and Enforcement. *Journal of Accounting Research*, *47*(2), 447–458. http://doi.org/10.1111/j.l475-679X.2009.00330.x

Hung, M., & Subramanyam, K. R. (2007). Financial statement effects of adopting international accounting standards: The case of Germany. *Review of Accounting Studies*, *12*(4), 623–657. http://doi.org/10.1007/s11142-007-9049-9

IASB (2015), https://www.ifrs.org/supporting-implementation/supporting-materials-for-the-ifrs-for-smes/

ICAEW, (2014). The new UK GAAP: has deferred tax just got bigger? https://www.icaew.com/archive/members/practice-resources/icaew-practice-support/practicewire/news/the-new-uk-gaap-has-deferred-tax-just-got-bigger 2014

ICAEW, (2015a). The new UK GAAP: Exploring the challenges presented by FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland And the new financial reporting regime for small and micro-entities. https://www.icaew.com/-/media/corporate/files/technical/financial-reporting/financial-reporting-faculty/tecpln13869-4-compendium-of-practicewire-vol-1.ashx?la=en

ICAEW, (2017). https://www.icaew.com/en/technical/financial-reporting/new-uk-gaap/frs-102-the-financial-reporting-standard.

ICAEW. (2012). The Future of Financial Reporting In The UK and ROI: Memorandum of comment submitted in April 2012 by ICAEW, in response to ASB exposure draft The Future of Financial Reporting in the UK and ROI. April.

http://www.icaew.com/~/media/corporate/files/technical/financial%20reporting/uk%2
0gaap/icaew%20rep%2064%2012%20future%20of%20financial%20reporting%20in
%20the%20uk%20and%20roi.ashx

ICAEW, (2015). *SME accounting requirements : basing policy on evidence*.

International Accounting Standards Board (IASB) (2004). Discussion paper.
preliminary views on accounting standards for small and medium-sized entities.
London, England: IASC Foundation.

Ionas¸cu, I., M., Olimid, L., & Artemisa Calu, D. (2007). *An Empirical Evaluation of
the Costs of Harmonizing Romanian Accounting with International Regulations (EU
Directives and IAS/IFRS)*. *Accounting in Europe* (Vol. 4).
http://doi.org/10.1080/17449480701727965

Kaya, D., & Koch, M. (2014). Countries' adoption of the International Financial
Reporting Standard for Small and Medium-sized Entities (IFRS for SMEs) – early
empirical evidence. *Accounting and Business Research*, *45*(1), 93–120.
http://doi.org/10.1080/00014788.2014.969188

Kitching, J., Ka perova, E., & Collis, J. (2013). The contradictory consequences of
regulation: The influence of filing abbreviated accounts on UK small company
performance. *International Small Business Journal*, 0266242613503973–.
http://doi.org/10.1177/0266242613503973

KPMG. (2013). The Future of UK GAAP. Retrieved January 2, 2016, from
http://kpmg.co.uk/email/05May13/282824/Final_GAAP_conversion-
key_considerations_HE_and_FE_issues_acc2.pdf

Kubickova, D. and Jindrichovska, I., (2012) 'July. Impact of IFRS Adoption on Key
Financial Ratios: Comparison of Selected European Countries. In International
Conference on Business Excellence, Brasov.

Landsman, W. R., Maydew, E. L., & Thornock, J. R. (2012) 'The information content
of annual earnings announcements and mandatory adoption of IFRS', *Journal of
Accounting and Economics*, *53*(1-2), 34-54.

Lantto, A.-M. and Sahlström, P. (2009) 'Impact of International Financial Reporting
Standard adoption on key financial ratios,. *Accounting & Finance*, 49: 341–361.
doi:10.1111/j.1467-629X.2008.00283.x

Li, S., (2010) 'Does mandatory adoption of International Financial Reporting
Standards in the European Union reduce the cost of equity capital?, *The accounting
review*, 85(2), pp.607-636.

Lindahl, F.W. (1987), "Accounting Standards and Olson's Theory of Collective
Action", *Journal of Accounting and Public Policy*; Volume: 6, pp. 59-72.

Liu, S. (2014). Accounting Quality across Different Groups of Firms under

Differential Reporting Framework : UK Evidence A thesis submitted for the degree of Doctor of Philosophy by Siming Liu Department of Economics and Finance School of Social Sciences, (March).

Liu, S. and Skerratt, L., (2018) 'Earnings quality across different reporting regimes: Listed, large private, medium-sized, small and micro companies in the UK', *Journal of Applied Accounting Research,* 19(1), pp.2-19.

Liu, S., & Skerratt, L. (2014). Earnings Quality Across Listed, Medium-Sized and Small Companies in the UK, (14), 1–39. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2471129.

Lys, T., (1984) 'Mandated accounting changes and debt covenants: The case of oil and gas accounting' *Journal of Accounting and economics*, 6(1), pp.39-65.

MacKay, P. and Phillips, G.M., (2005) 'How does industry affect firm financial structure?', *The Review of Financial Studies*, 18(4), pp.1433-1466).

Mercia (2016) (http://www.mercia-group.co.uk/Downloads/1454062847_Seven_Sectors.pdf)

Mercia (2016) http://www.mercia-group.co.uk/Downloads/1454062847_Seven_Sectors.pdf

Muller III, K.A., Riedl, E.J. and Sellhorn, T., (2011) 'Mandatory fair value accounting and information asymmetry: Evidence from the European real estate industry', *Management Science*, 57(6), pp.1138-1153.

Mullerova, L., Paseková, M. and Kubickova, D., 2010. Analysis of differences in reporting according to IFRS in SMEs in the Czech Republic and its influence on performance measurement. *ACTA VSFS*, *2*.

Nobes, C. (2010). On Researching into the Use of IFRS by Private Entities in Europe. *Accounting in Europe*, 7(2), 213–226. http://doi.org/10.1080/17449480.2010.511889

Nobes, C. (2011). *International Variations in IFRS Adoption and Practice. Certified Accountants Educational Trust, The Association of Chartered Certified Accountants*.

Nobes, C., (2006). The survival of international differences under IFRS: towards a research agenda. *Accounting and business research*, 36(3), pp.233-245.

O'Regan, Philip. (2007) *Financial information analysis*. John Wiley and Sons.

Ormrod, P. and Taylor, P., (2004) 'The Impact of the Change to International Accounting Standards on Debt Covenants: A UK Perspective 1', *Accounting in Europe*, 1(1), pp.71-94.

Pálka, P.Ř.E.M.Y.S.L. and Svitáková, B.O.H.U.M.I.L.A., (2011) 'Impact of IFRS for

SMEs adoption on performance of Czech companies. In Recent Researches in Economics and Management Transformation: Proceedings of the 6th IASME/WSEAS International Conference on Economy and Management Transformation (EMT'II) (pp. 49-54).

Pallant, J., (2005) *SPSS survival manual*. McGraw-Hill Education (UK).

Paulo, S., (2010) 'The UK Companies Act of 2006, the Sarbanes-Oxley Act of 2002, and important reviews of 2009: Implications for the certainty equivalent coefficient net present value criterion', *International Journal of Law and Management*, 52(6), pp.469-480.

Perera, D., & Chand, P. (2015). Issues in the adoption of international financial reporting standards (IFRS) for small and medium-sized enterprises (SMES). *Advances in Accounting*, *31*(1), 165–178. http://doi.org/10.1016/j.adiac.2015.03.012

Pwc. (2014). New UK GAAP: The impact on professional services firms and your questions answered. Retrieved December 27, 2015, from https://www.pwc.co.uk/assets/pdf/frs-201-and-the-impact-on-law-firms-march-2014.pdf

PWC. (2015). Summary of key differences between old UK GAAP, new UK GAAP (FRS 102) and IFRS, 16 October. Retrieved November 30, 2017, from https://inform.pwc.com/inform2/show?action=informContent&id=1317233404103278

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. Business (Vol. 5th). Pearson Education.

Scott-Moncrieff, (n.d.)., http://www.scott-moncrieff.com/assets/publications/Key_differences_between_UK_GAAP_FRS_102.pdf

Seedwell Tanaka Muyako Sithole. (2015). The Relevance of International Financial Reporting Standards for Small and Medium-Sized Entities (IFRS for SMEs) in Swaziland. *Journal of Modern Accounting and Auditing*, *11*(8), 383–402. http://doi.org/10.17265/1548-6583/2015.08.001

Sharma, A.K. and Kumar, S., (2011) 'Effect of working capital management on firm profitability: Empirical evidence from India. *Global Business Review*, 12(1), pp.159-173.

Sovbetov, Y. (2013) 'The Impacts of IFRS Adoption on Key Financial Ratios in UK Market - Over FTSE 100 Firms Through 2003-2007 Years', *SSRN Electronic Journal*, (April 2015). http://doi.org/10.2139/ssrn.2394507

Stenka, R.I., Ormrod, P. and Chan, A., (2008) 'Accounting for Business Combinations-The Consequences of IFRS Adoption for UK Listed Companies.

Available at SSRN: https://ssrn.com/abstract=1276826 or http://dx.doi.org/10.2139/ssrn.1276826

Strouhal, J., Müllerová, L.I.B.U.Š.E., Cardová, Z. and Paseková, M.A.R.I.E., (2009) 'National and International Financial reporting rules: testing the comparability of Czech Reporting from the SMEs perspective', *WSEAS Transactions on Business and Economics*, 6(12), pp.620-629.

Subramanyam, K.R. (2014) *Financial statements analysis*. McGraw–Hill.

The European Federation of Accountants and Auditors for Small and Medium-sized Enterprises (EFAA), 2010. Comparison of IFRS for SMEs and national GAAP of nine European countries.

Tsalavoutas, I. and Evans, L. (2010) 'Transition to IFRS in Greece: Financial statement effects and auditor size', *Managerial Auditing Journal*, 25(8), pp. 814–842. doi: 10.1108/02686901011069560.

Waters, D. and Waters, C.D.J., (2008). *Quantitative methods for business*. Pearson Education. Third Edition.

Ye, H., (2016). Comparison of Cox regression and discrete time survival models (Doctoral dissertation, Wayne State University).

Yip, R.W. and Young, D., (2012). Does mandatory IFRS adoption improve information comparability?. *The Accounting Review*, 87(5), pp.1767-1789.