A Stated Preference Approach to the Choice of Financial Reporting Regimes and Techniques

Yu-Lin Hsu

Department of Accounting and Finance

University of Strathclyde

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

September 2015

Declaration

This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.

Signed:

Date:

Acknowledgements

Studying a PhD is a long journey, but I am extremely grateful for all the wonderful people I have met on the way. Without them, I would not have been able to complete this thesis. Firstly, I would like to express my sincere gratitude to both of my supervisors, Prof Gavin Reid and Dr Julia Smith, for their continuous support and dedicated supervision. Their invaluable advice regarding research, funding and teaching benefited me a great deal. From them, I learned how to have a good work-life balance. I also learned how to stay positive and keep smiling when faced with difficult situations. Their encouragement and guidance throughout these years has been of tremendous help to me. Words cannot express my indebtedness to them.

I would like to take this opportunity to thank the University of Strathclyde and our Department. I am grateful to Prof Krishna Paudyal, Head of Accounting and Finance Department, for his kind support. I thank him and the University for supporting my conference attendance and fieldwork. I would also like to thank other members of our department: Dr LeiLei Tang, Ms Sasithorn McDonald, Prof Christine Cooper, Dr Andrea Coulson, Ms Lorna Carlaw, Ms Katie MacDonald, and Ms Katherine Duffy, for their kind help and encouragement. My sincere thanks also goes to my examiners, Prof Christine Cooper and Prof Geoff Meeks for their efforts and invaluable advice.

I must also acknowledge the Ministry of Education of R.O.C. and the Chiang Ching-kuo Foundation for International Scholarly Exchange, for sponsoring my PhD studies. With their support, I was able to concentrate on my work calmly, without feeling too overwhelmed. My sincere thanks also goes to the members of Economics and Finance in the University of St Andrews: Dr Leonidas Barbopoulos, Dr Geetha

Selvaretnam, Dr Ian Smith, Dr Georgios Gerasimou, Dr Luca Savorelli, Ms Eliana Wilson, Ms Caroline Moore, and Ms Angela Hodge, for the assistance and support they provided. A very special thanks goes out to Prof Chen-En Ko, without whose continuous encouragement and enormous support for my fieldwork I would not have been able to come this far. I would also like to thank Prof Chi-Chun Liu and Dr Szu-Hao Huang for their help during my field trip to Taiwan. Furthermore, I received a significant amount of help from Taiwanese and UK companies participating in this research. I would like to express my sincere gratitude to all of them. And lastly, to all my friends who have been very helpful to me in the data collection. In particular, I would like to thank Yi-Chun, Aqua, Jackie, and Yi-Ming for their assistance.

I am blessed to have friendly fellow students and cheerful friends in Strathclyde and St Andrews. I would like to thank Morten, Bei, Ning, Jinyu, Liang, Samer, Renzo, and Syamsul, for their great company and the invaluable information they have given me. I would like to give special thanks to Erven for her help and support during this long process. I also like to thank Shiny for her encouragement and thoughtful consideration. The time I spent with them has become a precious memory in my life.

I must also acknowledge William, Katie, Gemma, Shiny, Sarah, and Wei-Ning, for their very kind help in improving my thesis. I am grateful to my friends, Yi-Ting, Yi-Shan, Yi-Chun, Sheng-Chieh, Nasrin, and Amanda, for their continuous support. In particular, I would like to express my appreciation to Wei-Ning for being such a good friend and always being there for me.

Last but not least, I would like to thank my family, particularly my sister and my mom, for their understanding and unending support.

Abstract

The aim of this thesis is to investigate companies' choices in financial reporting. This research first identifies that regimes and techniques are a firm's two major accounting choices. It then establishes that a two-stage choice model of regimes and techniques is appropriate for choices of this sort. The thesis investigates the nature of regime choices and technique choices and the relationship between them. Furthermore, this study recognises three choice patterns in the two-stage choice model: two types of sequential choices and a nested choice. Lexicographic and colexicographic preference orderings can be used to understand the two sequential decision-making processes. The nested choice can be regarded as a simultaneous process. Interview data shows these forms of choice behaviour.

The empirical basis of this study applies a stated preference approach to estimate companies' adoption costs (C) and benefits (B) of accounting modes. Primary source data on net benefits was gathered from companies in the UK and Taiwan by questionnaires and face-to-face interviews. The analysis of this research implies that the stated costs (C) and benefits (B) reflect companies' rationale behind accounting choices. Thus, the usefulness of the stated preference approach for understanding regime and technique choices is established. Using measured stated costs and benefits, this research calibrates firms' net utilities (B-C) and ratio utilities (B/C) arising from adopting a specific regime or technique from the choices available. It is observed that companies' accounting decisions generally follow a rational net-benefit analysis, given free choices. That is, companies typically select that accounting mode which leads to the highest adoption net-utilities. These findings suggest that the

cost-benefit analysis, based on stated preferences, helps our understanding of firms' choice behaviour in financial reporting. The results of nonparametric tests also indicate that UK and Taiwanese companies often do not perceive any net benefits from implementing IFRS.

Table of Contents

List of Tables

List of Figures

Chapter 1 Introduction

1.1 Introduction and Motivation

This thesis will explore companies' choices in financial reporting and their rationale behind these decisions, using quantitative and qualitative methods (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). This work aims to establish a two-stage choice model of financial reporting regimes and techniques, to discuss multiple choices together. It will also investigate the potential for applying stated preference theory to measure firms' adoption costs and benefits, which in this research are calibrated based on managers' perceptions. This thesis is expected to enhance our understanding of accounting choices, to advance relevant literature and to provide useful and timely policy insights.

Financial reporting choice is a major area of interest within the field of accounting (Fields, Lys, & Vincent, 2001; Holthausen, 1990). After carefully reviewing relevant literature, this research identifies two types of choices, which companies have in financial reporting: the choice of financial reporting regimes and the choice of financial reporting techniques. In this thesis, a financial reporting regime refers to an entire system of financial reporting regulations, such as the International Financial Reporting Standards (IFRS) and the Generally Accepted Accounting Practice in the UK (UK GAAP). A financial reporting technique is a method, permitted under a regime, to treat a specific aspect of financial reports. For instance, the cost approach and the market approach are two financial reporting techniques for valuing intangibles.

Although a considerable number of studies discuss regime choices and technique choices (Graham, Harvey, & Rajgopal, 2005; Kvaal & Nobes, 2010; Smith & Reid, 2008), few scholars have been able to analyse these two choices together. To the extent of our knowledge, none of the literature examines companies' joint decision-making processes of regime choices and technique choices. Several researchers have indicated the importance of analysing various accounting choices simultaneously (Fields et al., 2001; Missonier-Piera, 2004). Prior work also suggests further investigation into firms' decision-making processes in financial reporting (Cardinaels, 2008; Trotman, Tan, & Ang, 2011). Nowadays, standard-setters continually change the regulations governing financial reporting, and the complexity of accounting choices has risen (Peterson, 2012). Nevertheless, our understanding of the rationale behind the financial reporting decisions lags behind these trends (Fields et al., 2001; Thrane, 2007). Therefore, this thesis will establish a two-stage choice model of regimes and techniques. It aims to explore the relationship between regime choices and technique choices, and to study how companies make these accounting decisions.

This study also addresses the current lack of empirical research on the costs and benefits of financial reporting (Gwilliam, Macve, & Meeks, 2005; Meeks & Meeks, 2002). This often results from the difficulty of measuring accounting costs and benefits in practice (Gwilliam et al., 2005). However, it is important to understand financial reporting costs and benefits because they are influential to accounting decisions (Fields et al., 2001; Schipper, 2010). Researchers also urge that more work should be done in estimating costs and benefits, which are associated with financial reporting (Bruggemann, Hitz, & Sellhorn, 2013; Fields et al., 2001).

Furthermore, in a meta-study of accounting choices, Fields et al. (2001) have pointed out the need for establishing a more complete theoretical framework to interpret accounting choices, and the need for applying new econometric techniques and research instruments in this field. Schipper (2010) also mentions that the present methods for measuring accounting costs and benefits require further advancement. She proposes a stated preference approach for exploring costs and benefits associated with financial reporting.

Rising to this challenge, this thesis will introduce a stated preference method to estimate firms' costs and benefits of implementing different accounting modes. It aims to examine the possibility of applying stated preference theory to study choices regarding financial reporting, using new primary source survey data from the UK and Taiwan. It will further investigate whether companies' choices of financial reporting regimes and techniques can be illuminated by various forms of cost-benefit analysis. To enhance the theoretical basis in this area, this research will also elaborate firms' decision-making processes, using relevant preference orderings. It will also recommend potential econometric techniques to estimate companies' choice behaviour.

Over the past decade, there has been a great deal of interest in studying IFRS. Previous research has led to an inconsistent conclusion regarding whether adopting IFRS is beneficial or not (Bruggemann et al., 2013; Singleton-Green, 2015). Singleton-Green (2015) indicates that far too little attention has been paid to the costs of using IFRS. There is also an ongoing debate over whether companies should adopt IFRS in various countries, including the US (Barth, Landsman, Lang, & Williams, 2012). Several scholars have recommended undertaking more research on the costs

and benefits of applying IFRS (Bruggemann et al., 2013; Daske, 2006). Hence, this thesis will measure the overall adoption costs and benefits of IFRS, which are perceived by managers. It then demonstrates the robustness of our results using both the UK and Taiwanese firms' data.

1.2 Research Objectives and Contributions

Following the motivation mentioned in the previous section, this section further explains the objectives and the contributions of this work. There are four key works presented in this thesis: (a) developing a two-stage choice model of accounting modes; (b) applying stated preference theory and cost-benefit analysis to study accounting choices; (c) exploring companies' choice behaviour and decision-making processes in financial reporting; (d) investigating important accounting issues and new regulations. By doing so, this research aims to advance the academic literature, and provide important business and policy insights.

1.2.1 Development of a Two-Stage Choice Model of Financial Reporting Regimes and Techniques

This thesis emphasises companies' accounting choices, which are central to the discipline of accounting (Bowen, Rajgopal, & Venkatachalam, 2008; Fields et al., 2001; Holthausen, 1990). This research first identifies regime choices and technique choices as two major choices, which companies might have in financial reporting (Graham et al., 2005; Jermakowicz & Gornik-Tomaszewski, 2006; Reid & Smith, 2007a, 2007b) (see Section 2.2). In order to enhance our understanding of choice behaviour in accounting, this thesis further establishes a two-stage choice model of financial reporting regimes and techniques (see Section 2.2.3 and Section 3.5). The

first stage of this model considers regime choices; the second stage models the choice of financial reporting techniques. The two-stage choice model is inspired by studies of travel choices (Kelly, Haider, & Williams, 2007). This model allows researchers to examine multiple accounting choices simultaneously, in a more systematic and comprehensive way. This work therefore advances the academic literature (Fields et al., 2001; Missonier-Piera, 2004). This thesis will also summarise the financial reporting choices, which firms might have, and will present these choices in several ways, such as using tables and decision trees (see Chapter 3). Therefore, this research will provide a more complete framework to study accounting choices, which can be adopted in future work.

The design of our instrument is based on this two-stage choice model of regimes and techniques. The application areas of this thesis are accounting practices in the UK and Taiwan (see Chapter 3 and Chapter 4). In the analysis of UK practice, IFRS and UK GAAP are the principal financial reporting regimes. In Taiwanese cases, the focus is on IFRS and the Generally Accepted Accounting Practice in the Republic of China (ROC GAAP). The main techniques discussed in this research are techniques for valuing intangibles, treating development costs, and valuing investments (Barth, 1994; Canibano, Garcia-Ayuso, & Sanchez, 2000; Cazavan-Jeny, Jeanjean, & Joos, 2011; Fields et al., 2001). These aspects are crucial to enterprises, particularly for high-tech companies (Bianchi & Labory, 2004). Hence, the analysis of this thesis should contribute to the competitive and evolving global markets (A. Hausman & Johnston, 2014).

1.2.2 Application of Stated Preference Theory and Cost-Benefit Analysis

In order to address the issue of how firms choose financial reporting regimes and techniques, this research conducts a cost-benefit analysis based on stated preference theory. It will demonstrate how to estimate the costs and benefits of adopting financial reporting modes using survey data (see Chapter 4). More specifically, this study measures management's perceived costs and benefits, rather than those of other shareholders and the entire economy (Gwilliam et al., 2005; Schipper, 2010). Building on the calibration of costs and benefits, this thesis will present both ratio utilities (viz., benefit over cost) and net utilities (viz., benefit minus cost) of implementing different accounting modes. This measurement approach mainly follows Reid and Smith's research (2007a, 2007b) on financial reporting in small firms. This thesis will also analyse how the companies' accounting choice behaviour can be explained by the adoption costs and benefits of financial reporting modes (see Chapter 5, 6, 8, and 9). Thereafter, the concept of using the stated preference approach to study accounting choices, and the potential to conduct a cost-benefit analysis based on stated preference theory will be investigated and tested.

Schipper (2010) assesses the cost-benefit analysis in accounting studies, and points out the need for improving current research instruments to measure accounting costs and benefits. She also indicates the potential to apply stated preference theory in this area. Stated preference theory is widely used in the studies of choice behaviour (Hensher, 1994; Ida & Goto, 2009). Stated preference is the preference, which respondents state in surveys, rather than the preference they exhibit in market transactions (Adamowicz, Louviere, & Williams, 1994). The stated preference model

is very useful because it allows researchers to capture preferences, which cannot be obtained by observing market behaviour (Adamowicz et al., 1994), such as the preferences towards financial reporting regimes and techniques. Hence, a stated preference approach could be considered as a promising instrument to study firms' accounting choices (see Section 2.4).

This thesis introduces a stated preference approach to study the two-stage choice problem of financial reporting regimes and techniques. This approach will be used to investigate both firms' current and expected accounting choices. At the same time, this research examines the application of this new research instrument in accounting, using new firm data. This thesis provides a new method to estimate accounting costs and benefits, and aims to overcome the difficulty of measurement (Gwilliam et al., 2005) (see Section 2.4 and Chapter 4). It also explores whether companies' accounting choices can be illuminated by various forms of cost-benefit analysis (see Chapter 5, 6, 8, and 9). Therefore, this work anticipates to enhance our understanding of financial reporting choices and to advance prior studies (Bruggemann et al., 2013; Fields et al., 2001; Gwilliam et al., 2005; Meeks and Meeks, 2002; Reid & Smith, 2007a, 2007b; Schipper, 2010). Furthermore, this research conducts nonparametric tests to examine whether adopting IFRS brings additional benefits to companies (see Section 5.2 and Section 8.2). The statistical results will contribute to the debate of the IFRS adoption and related academic literature (Barth et al., 2012; Bruggemann et al., 2013; Daske, 2006; Singleton-Green, 2015).

1.2.3 Choice Behaviour and Decision-Making Processes

This thesis will examine firms' choice behaviour in financial reporting using a two-stage choice model through mixed methods (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). Firstly, this thesis investigates how companies determine their regimes and techniques separately (see Chapter 5 and Section 8.2 to 8.4). Net and ratio utilities of adopting accounting modes are calculated using firms' stated costs and benefits. Nonparametric tests are conducted to investigate the impact of tied choices (i.e., mandatory IFRS adoption). Whether the stated costs and benefits are consistent with companies' free choices is examined through case studies. Following the calibration of net and ratio utilities, interview data is used to elaborate firms' rationales behind their perceived costs and benefits.

Secondly, this research explores the relationship between regime choices and technique choices (see Chapter 7 and Section 8.5). Since various regimes often allow different techniques, regime choices and technique choices should be related. Using interview data, this thesis illustrates how firms make decisions when facing regime choices and technique choices (viz., in what manners and the key considerations). This research identifies three choice patterns in the two-stage choice model of regimes and techniques (see Section 2.3.1 and Section 3.5). The first type is a sequential choice pattern, which starts from the regime choice and ends in the technique choice. The second form is also a sequential choice, whereas it is opposite to the first one and starts from the technique choice. The third one is a nested choice where firms consider all available choices, and make regime and technique choices simultaneously. To strengthen the theoretical basis of this two-stage choice model, this thesis introduces two preference orderings, lexicographic and colexicographic

orderings, to formally express the first and second type sequential choices respectively (Castano & Castano, 2012; Colman & Stirk, 1999). The colexicographic order originates from mathematics and computer science, and it has not been used in studying financial reporting choices (Agrawal & Salinas, 1988; Heuberger & Muir, 2007). Hence, our studies introduce an alternative choice theory to this area. Moreover, two potential econometric techniques for estimating the choice behaviours in this two-stage choice model are also presented (Nagakura & Kobayashi, 2009; Van Ophem & Schram, 1997) (see Section 2.3.2 and Section 3.5). The sequential logit model and nested logit model would be useful to measure the first-type sequential choice and the nested choice respectively. Few previous studies have utilised these advanced logit models in studies of financial reports. Therefore, this research suggests a new potential application of these models.

Thirdly, this thesis examines how companies' regime choices for consolidated accounts are linked to their regime choices for individual accounts (see Chapter 6). Since adopting IFRS is mandatory for UK listed firms' consolidated accounts, it is worth investigating how this enforcement influences these firms' other accounting choices. It will also be showed that the perceived costs and benefits of compulsory IFRS adoption can explain companies' regime choices for their individual accounts.

This thesis considers multiple accounting choices and their interactions. Through the two-stage choice model, this research explores the connection between regime choices and technique choices, and firms' decision-making processes. It also considers the association between regime choices for consolidated accounts and those for individual accounts. As far as we know, the above two aspects have not been explored by present literature. With the help of interview data, this thesis will

conduct case studies further to investigate firms' rationale behind accounting choices and the major factors, which influence their decisions. This work will make a major contribution to the literature on choice behaviour and decision-making in financial reporting (Cardinaels, 2008; Trotman et al., 2011). It enhances the theory and econometric techniques in this area (Fields et al., 2001). It will also result in a better understanding of companies' accounting choices through providing insights of accounting practices (Thrane, 2007).

1.2.4 Policy Insights on Important Accounting Issues and New Regulations

This thesis explores companies' financial reporting choices, with the focus on issues that draw substantial attention in accounting studies. For example, IFRS is a crucial financial reporting regime, which has been adopted in more than 100 countries since it is introduced in 2005 (Ball, 2006; Bova & Pereira, 2012). Prior research shows that there are advantages and disadvantages of implementing IFRS (Armstrong, Barth, Jagolinzer, & Riedl, 2010; Jermakowicz & Gornik-Tomaszewski, 2006). This thesis estimates firms' overall costs and benefits of adopting IFRS, and analyses companies' opinions on IFRS through case studies. It should contribute to the accounting literature and practice (Barth et al., 2012; Bruggemann et al., 2013; Daske, 2006). Furthermore, scholars mention that the application of IFRS varies across countries (Kvaal & Nobes, 2010; Nobes, 2006; Singleton-Green, 2015). Hence, this thesis will conduct a comparative analysis of the IFRS adoption between the UK and Taiwan. The IFRS is enforced in the UK in 2005 (IFRS Foundation and the IASB, 2013). UK firms are amongst those that adopted IFRS earliest. In contrast, Taiwanese firms are the most recent adopters, which officially start to adopt IFRS beginning in 2013

(TWSE, 2012a). It is helpful to investigate whether companies in the UK and Taiwan perceive similar adoption costs and benefits from applying IFRS. This comparative analysis will provide new and robust evidence on this topic. Additionally, the three principal technique choices (viz., techniques for valuing intangibles and investments, and treating development costs) elaborated in this research are also widely discussed in the accounting literature (Barth, 1994; Canibano et al., 2000; Cazavan-Jeny et al., 2011; Fields et al., 2001). They also play an important role in the economy as a whole (Bianchi & Labory, 2004; Guthrie, Petty, & Johanson, 2001; A. Hausman & Johnston, 2014). This study will offer significant insights into these key accounting issues.

In addition, this research considers recent changes in the accounting regulations in the UK and Taiwan (see Chapter 3 and Chapter 9). The Accounting Standards Board (ASB) planned to replace the current UK GAAP with a new UK GAAP from 2015 onwards (ASB, 2012). The Taiwanese authority of private firms has also considered the implementation of IFRS and IFRS for SMEs for several years (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2012). This thesis will discuss the latest developments in accounting regulations, and companies' opinions on these policy changes. It will also examine how companies respond to these changes. This study takes new policies into account, and aims to provide practical insights. It has potential policy impact, and the results would benefit firms, investors and standard-setters. The analysis presented in this thesis is based on the regulations when surveys and interviews were conducted. The UK analysis follows the policies in 2013 to the middle of 2014. The Taiwanese discussion uses the accounting framework in the first half of 2014. This work also

illustrates the latest development of financial reporting regulations until December 2014. Our results will be timely and crucial to accounting practices.

1.3 Structure of the Thesis

This thesis is structured as follows: Firstly, Chapter 2 will carefully review literature relevant to this work. It will cover research on financial reporting regimes and techniques, the two-stage choice model, preference orderings, econometric estimation, stated preference theory, and cost-benefit analysis. Secondly, Chapter 3 will elaborate the current and the future accounting regulations in the UK and Taiwan. It will present companies' regime and technique choices through tables and decision trees. It will further develop the two-stage choice model of regimes and techniques, using the accounting frameworks of the UK and Taiwan. Chapter 2 and Chapter 3 will stand as a solid foundation for further analysis. Thirdly, on the basis of the literature review (Chapter 2) and the two-stage choice model (Chapter 3), this thesis will continue to illustrate the methodology of this research. Chapter 4 will discuss the research methods, sampling frame, design of instrumentation, and data coding. It will show how to calibrate companies' costs and benefits of implementing accounting modes using survey data. It will also explain the major hypotheses in this study.

Fourthly, Chapters 5 through 9 will present the empirical results and analysis of accounting choices. Chapters 5 through 7 consider UK firms. Chapter 5 will conduct nonparametric tests to examine whether UK companies experience additional benefits from adopting IFRS. It will also analyse whether these companies' technique choices can be illuminated by net utilities and ratio utilities. Chapter 6

emphasises UK firms' regime choices. It will use case studies to show companies' rationales behind the stated costs and benefits. It will also explain the relationship between the regime choice for consolidation accounts and that for individual accounts. Chapter 7 will investigate UK companies' decision-making processes in the two-stage choice model, and whether regime choices and technique choices influence each other. Following the discussion of UK companies in Chapters 5 through 7, Chapter 8 will explore Taiwanese firms' accounting choices. It is parallel to the UK analysis, and will include Taiwanese companies' regime choices (through both nonparametric tests and case studies), technique choices, and their choice behaviour in the two-stage choice model. A comparative analysis of accounting choices and regulations between the UK and Taiwan will be presented in Chapter 9. Chapter 9 will also discuss companies' opinions on the latest and important accounting regulations, and aims to provide crucial policy insights. Fifthly, Chapter 10 will summarise the finding of this research and conclude. It will indicate the contributions and limitations of this thesis and suggest potential future research.

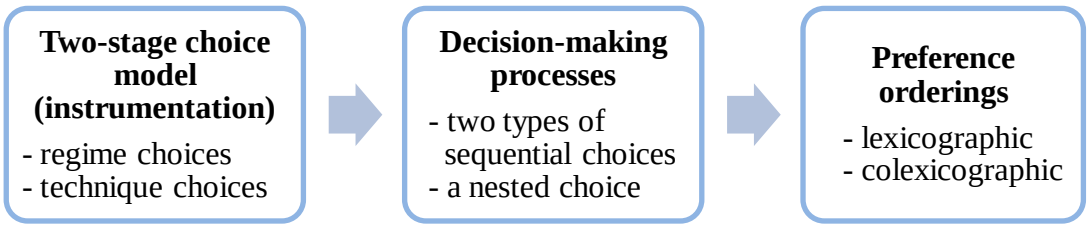
1.4 Summary

To summarise, this chapter explains the motivation, objectives and contributions of this work. This research aims to apply a new stated preference approach to study the two-stage choice problem of financial reporting regimes and techniques. It will calibrate companies' costs and benefits of implementing accounting modes, and provide more evidence on accounting costs and benefits. It will also investigate firms' rationale behind accounting decisions, and their decision-making processes in the two-stage choice model. It should be noted that the data (e.g., costs and benefits of

adopting accounting modes) used in this study was based on managers' perceptions. Furthermore, this thesis considers multiple choices at the same time. It expects to enhance our understanding of accounting choices, and advance the relevant literature.

Figure 1.1 shows the linkage amongst the two-stage choice model, instrumentation, choice patterns, and preference theory. Firstly, the design of research instruments is based on the two-stage choice model of regimes and techniques (see the left box of Figure 1.1). Choices between these alternatives are explored using case studies and statistical methods. This model helps to analyse financial reporting decisions in a more systematic way, and can be used by subsequent studies. Secondly, this research indicates three possible choice patterns in this two-stage choice model of accounting modes (see the middle box of Figure 1.1). The first type is a sequential choice, which starts from the regime choice and ends in the technique choice. The second one is a sequential choice, where the decisions are made in an opposite direction to the first one. The third pattern is a nested choice, where regimes and techniques are chosen simultaneously. Thirdly, this thesis advances prior studies by introducing new preference orderings to this field (see the right box of Figure 1.1). A lexicographic preference ordering can express the first-type sequential choice, and a colexicographic preference ordering can describe the second-type sequential choice.

Figure 1.1: Linkage amongst the Model, Instrumentation, Decision-Making Processes, and Preference Orderings



This thesis emphasises important accounting issues, such as the IFRS adoption. It also takes into account recent changes in the accounting regulations in the UK and Taiwan. Using interview data, this study can explore how firms regard these policy changes, and their major considerations when making decisions regarding financial reports. The stated preference approach will also be applied to study companies' anticipated accounting choices. The results of this research will have crucial and timely policy impact, and should make an important contribution to both the accounting literature and practice. The next chapter will review the literature related to this study, and will extend and support the content of this chapter.

Chapter 2 Literature Review

2.1 Introduction

The previous chapter set out the motivations and objectives of this thesis. This chapter reviews relevant research literature and provides a foundation for the analysis in the following chapters. The literature review here supports the methodology used in this thesis (see Chapter 4), and argues for the importance of this research.

This chapter is organised as follows: Section 2.2 emphasises research on companies' choices in financial reporting (Fields et al., 2001), and identifies the main types of accounting choices, which firms have (more discussion in Chapters 5 through 9). It then proposes a two-stage choice model of accounting modes (Kelly et al., 2007; Missonier-Piera, 2004) (see Chapter 3 for an account of the full model). Section 2.2 also discusses the accounting and finance literature, which considers choice behaviour (Holthausen, 1990; Shu, Chiang, & Lin, 2012).

Section 2.3 introduces the two types of preference orderings, which will be used to describe companies' decision-making processes (Castano & Castano, 2012; Colman & Stirk, 1999). It also indicates three possible choice patterns (Bellemare & Barrett, 2006) (see Chapter 3 for a complete explanation; see Chapter 7 and Chapter 8 for empirical results). Furthermore, Section 2.3 briefly explores potential econometric estimation for different choice patterns (Nagakura & Kobayashi, 2009; Van Ophem & Schram, 1997). Section 2.4 elaborates the main theory used in this research, namely stated preference theory (Kroes & Sheldon, 1988; Schipper, 2010). On the basis of stated preference theory, it further examines the accounting literature, which

discusses cost-benefit analysis, in the context of choice of accounting regimes and techniques (Gwilliam et al., 2005; Meeks & Meeks, 2002). Section 2.5 draws together the main themes of the literature review in this chapter.

2.2 Choices in Financial Reporting

This section shows that companies can have various degrees of discretion when they prepare financial reports (Section 2.2.1). It classifies companies' choices over financial reporting, and indicates the two main types of choices, which are: regime choices; and technique choices (Section 2.2.2). It briefly explains the two-stage choice model of financial reporting regimes and techniques, which is developed and elaborated in this thesis (Section 2.2.3). It also reviews relevant behavioural studies in accounting and finance (Section 2.2.4). The key concepts in the choice literature developed in this chapter will be useful to understanding companies' accounting decisions, as investigated in later chapters.

2.2.1 Companies' Discretion in Financial Reporting

Although companies need to follow the accounting regulations set by policy makers in their home or host country, they typically have some discretion over financial reporting (Gordon, 1964). For example, a PwC (2014a) research report on IFRS indicates that firms in several countries are free to choose IFRS or other financial reporting standards. As the report indicates, SIX Swiss Exchange listed companies can implement IFRS or Generally Accepted Accounting Principles in the United States (US GAAP) when preparing consolidated accounts. Other firms in Switzerland have an additional regime option, which is Swiss GAAP FER. Furthermore, Irish companies can freely adopt IFRS or Generally Accepted

Accounting Principles in the Republic of Ireland (Irish GAAP) as their regimes for parent's and subsidiaries' individual accounts. Similarly to Irish firms, UK firms can elect to use IFRS or UK GAAP for individual accounts. Moreover, certain small private firms in the UK have a wider discretion over financial reporting standards, and can use IFRS, UK GAAP or Financial Reporting Standard for Small Entities (FRSSE).

A multinational company can also effectively determine its financial reporting regime by choosing the location in which it is listed (Piotroski & Srinivasan, 2008; Saudagaran & Biddle, 1995). It is also common to find that authorities allow companies to adopt a new accounting regulation early or voluntarily (Horton, Serafeim, & Serafeim, 2013; PwC, 2014a). For instance, Horton et al. (2013) study the impact of IFRS adoption on financial reporting information, and the research shows that the early adoption of IFRS is permitted in many countries, including France, Germany, and Belgium. Hence, firms often have discretion over financial reporting in some way and can choose the method, which is most suitable or beneficial for them in preparing their financial reports (Bowen et al., 2008). Companies may also have discretion over the content of voluntary disclosure, and the ways in which they present material under diverse accounting regulations (Amel-Zadeh, Lev, & Meeks, 2013; Beyer, Cohen, Lys, & Walther, 2010; Dye, 1985; Graham et al., 2005). For example, they may be able to choose between providing quantitative or qualitative information, and may be able to decide how much information they would like to disclose.

2.2.2 Two Types of Choices in Financial Reporting: Regimes and Techniques

The investigation of choice in financial reporting is part of the mainstream of financial and accounting studies (A. Beatty & Weber, 2006; Bowen et al., 2008; Fields et al., 2001; Holthausen, 1990; Trotman et al., 2011; Watts, 1992). Trotman et al. (2011) summarise common accounting choices and one of which is the choice made by managers of companies, as widely discussed in the literature (Badertscher, 2011; Bowen et al., 2008; Ewert & Wagenhofer, 2005). As mentioned in the early paragraphs of this chapter, although companies must follow the accounting regulations, they typically have at least some discretion over financial reporting. Thus, firms' preferences over financial reporting modes will often influence their accounting decisions (Watts & Zimmerman, 1978). The research literature has shown that even firms in the same country, following the same accounting regulations, might behave differently in their choices of financial reporting modes. For example, Watts and Zimmerman (1978) explore US firms' opinions on the accounting regulations. They use the "opinion document," which firms give to standard-setters, regarding the new financial reporting standards. Their research shows how firm size, taxes, and political pressure affect US companies' attitudes towards the accounting regulations. In addition, Bamber, Jiang, Petroni, and Wang (2010) inquire into US companies' decisions on whether to show comprehensive income on the income statement or on the statement of equity. They suggest that managers' equity-related incentives and perceptions of job security have an impact on their choices regarding presenting comprehensive income. Nowadays, the complexity of accounting has risen; however, our understanding of how companies make decisions in financial reporting is still limited (Fields et al., 2001; Peterson, 2012; Thrane, 2007). Therefore,

this thesis emphasises how companies make accounting choices. It identifies the two main types of choices, which firms have in financial reporting, namely regime choices and technique choices.

Choices over Financial Reporting Techniques

In this research, a *regime* means a whole system of financial reporting standards, such as IFRS and UK GAAP. A *technique* refers to a method which companies can use under a regime. A considerable amount of literature investigates the choice of financial reporting techniques, given the financial reporting regime (Cazavan-Jeny et al., 2011; Graham et al., 2005). For example, Dhaliwal, Salamon, and Dan Smith (1982) inspect companies' technique choices over depreciation, involving the reducing-balance method and straight-line method. They show that firms with different levels of owner control have distinct preferences towards depreciation techniques. According to their findings, firms, which are mainly controlled by owners, often consider the benefits of the entire firms when choosing techniques. On the other hand, firms mainly controlled by managers tend to adopt the technique, which is favourable from just the perspective of the management. There are further studies of choices of depreciation techniques. For example, Bowen, DuCharme, and Shores (1995) examine how firms treat inventory and depreciate assets. They show that the relationship between companies and stakeholders affects firms' choices of techniques in these two aspects. Additionally, Jackson, Rodgers and Tuttle (2010) analyse the impact of companies' technique choices over depreciation. They conclude that firms tend to consider the book value, which is greatly affected by depreciation techniques, when deciding to dispose of an asset.

Many of the technique choices explored in literature are related to firms' earnings (Bowen et al., 2008; Graham et al., 2005). For instance, Badertscher (2011) studies the major techniques, which companies can apply to influence earnings. He shows that whether or not the stock price fairly reflects a firm's true value has a large impact on the company's technique choices over earnings management. Additionally, Ghosh and Olsen (2009) argue that companies might deliberately elect the techniques of treating accruals to smooth earnings, and to ease uncertainty.

Cazavan-Jeny et al. (2011) consider French firms' technique choices in recognising R&D costs. The results of their research suggest that companies tend to treat R&D expenditure as assets, to achieve a target level of earnings. Ahmed and Falk (2006) also analyse firms' technique choices in treating development costs. They provide evidence that there is a positive relationship between companies' decisions in recognising development expenditure and their later performance.

In addition, several studies have focused on the treatments of intangibles (A. Beatty & Weber, 2006; Luft & Shields, 2001). For instance, Canibano et al. (2000) scrutinise issues around intangibles. One of their focuses is the valuation of intangibles. They indicate several ways to value intangibles, including the income approach, fair value approach and cost approach. Furthermore, Sahut, Boulerne, and Teulon (2011) examine the difference in favoured techniques for intangibles amongst various regimes, including IFRS. They use European data, and illustrate that the way companies report intangibles often changes under different regimes. They also show that certain intangibles are more relevant to companies' stock prices than to their goodwill.

Moreover, techniques of valuing investments are also widely discussed in the accounting and finance literature (Khurana & Kim, 2003). For example, Barth (1994) investigates companies' techniques of valuing investments, with their focus being on banks. She documents that the fair value approach could enhance the relevance of financial reports. However, there is no strong evidence that the cost approach could do so. Building on Barth's research (1994), Carroll, Linsmeier, and Petroni (2003) also explore whether the fair value approach of valuing investments is better than the cost approach in terms of value-relevance. Slightly different from Barth's results, their findings suggest that the gains and losses of investments obtained by the fair value approach are more appropriate than those calculated by the cost approach.

More studies about technique choices will now be considered. Gul (2001), for example, probes two approaches to treating inventory, which are LIFO and FIFO. Starting from an agency perspective, he shows that free cash flow and debt heavily influence companies' determination of techniques. Henning and Shaw (2003) inquire into companies' technique choices in the case of amortising goodwill. They demonstrate that a firm's decision on the amortisation period is related to its subsequent performance. Hodge, Hopkins, and Pratt (2006) use an experiment to discover how firms behave when choosing techniques for classifying "hybrid securities[1]" (p. 624), with a focus on how readers perceive the quality of financial reports. Finally, Hodder and Hopkins (2014) examine how banks' preferences towards different techniques of valuing loans, involving the fair value approach and cost approach, are expressed. Their results show that financial institutions' expressions of choice are heavily affected by their perception of the transparency of

[1] Hybrid securities consist of various securities, and have attributes of both equity and debt.

financial reports.

Choices over Financial Reporting Regimes

Much research investigates financial reporting regimes. For instance, Gordon (1964) explores what constitutes a good financial reporting regime. He suggests that managers choose accounting modes to maximize their utilities, which are associated with factors like the security level of their jobs, their incomes, and their firms' sizes. Many studies focus on just a single financial reporting regime and firms' subsequent performances after the adoption. Amongst these studies, a considerable amount of literature explores issues related to IFRS (Singleton-Green, 2015). For example, Ball (2006) examines whether the policy of compulsory IFRS adoption is appropriate, and whether this encourages the convergence of accounting regimes. He points out that IFRS involves substantial judgement, which is fungible and might differ across companies and countries. Armstrong et al. (2010) assess whether the introduction of IFRS is beneficial from the viewpoints of investors, by testing European companies' market returns. They find a positive association between market returns and IFRS associated events. This implies that IFRS helps to increase the transparency of financial reports. Bova and Pereira (2012) test the relationship between IFRS adoption and the extent of foreign shareholding, and study the difference in preference between public and private companies, using Kenyan firm data. They find that companies, which are largely held by foreign capital or/and by the public sectors, tend to perceive greater benefits from applying IFRS, compared to other firms. IFRS is a very important emerging financial reporting standard, and it has been adopted in more than 100 countries since its first introduction in 2005 (Ball, 2006; Bova & Pereira, 2012; IFRS Foundation and the IASB, 2014). Therefore, one of the major

objectives of this thesis is to explore topics surrounding IFRS, such as companies' perceived costs and benefits of adopting IFRS.

A number of scholars have identified the differences between principles-based and rules-based regimes (Collins, Pasewark, & Riley, 2012). For example, Nelson (2003) investigates the behaviour of companies, which face these two distinct types of regimes. On the basis of early literature, he suggests that principles-based regimes might help to weaken managements' intended influence on financial results. Agoglia, Doupnik, and Tsakumis (2011) discuss companies' behaviour in financial reporting when facing the above two types of regimes. They, using experimental data, argue that managers are more likely to report financial results aggressively (e.g., deliberately show higher profits) when companies comply with rules-based regimes.

Moreover, because of the rise of adoption of IFRS, there has been an increasing interest in analysing IFRS issues along with other financial reporting regimes (Barth, Landsman, Young, & Zhuang, 2014; Soderstrom & Sun, 2007; Van der Meulen, Gaeremynck, & Willekens, 2007). A growing body of literature has been published on the consequences of implementing IFRS. For example, detailed examination of the potential benefits of IFRS by Atwood, Drake, Myers, and Myers (2011) show that US GAAP earnings can reflect companies' future performances more fairly than do IFRS earnings. Thus, their findings reject the argument that IFRS leads to more predictive earnings. In contrast to Atwood et al. (2011), Horton et al. (2013) demonstrate that compulsory IFRS adoption leads to higher quality earnings. Furthermore, the work undertaken by Barth et al. (2012) examines the comparability of financial reports prepared under IFRS and US GAAP respectively. Their research suggests that the inter-comparability improves after companies switch from previous

financial reporting regimes to IFRS, particularly when IFRS adoption is compulsory. Additionally, in an investigation into the impact of adopting IFRS, Christensen, Hail, and Leuz (2013) find that the better stock market performance, which firms experience after adopting IFRS, largely results from the enforcement of accounting regulations, rather than the difference between IFRS and their previous financial reporting regimes. Moreover, attempts have been made to investigate the accounting discretion surrounding the adoption of IFRS. For instance, Kvaal and Nobes (2010) indicate that the initiatives behind implementation of IFRS differ cross countries, and mention that firms might even take advantage of free choice to utilise techniques of local GAAPs. Further, Messier, Quick, and Vandervelde (2014) discuss auditors' anticipated actions when they are contemplating choices between applying techniques of IFRS or those of US GAAP. They argue that inertia and familiarity might lead auditors to choose the methods, which they use currently (i.e., techniques used under US GAAP).

Some writers pay particular attention to the choices over various financial reporting regimes (Reid & Smith, 2007a; Smith & Reid, 2008). Reid and Smith's empirical studies (2007a, 2007b) involve the analysis of practitioner's regime choices, and focus on the adoption of the FRSSE. They provide evidence that individuals, who implement the FRSSE, perceive higher levels of net benefits from this adoption, compared to people who do not use this financial reporting regime. They also show that whether the individual receive the relevant training of the FRSSE and firm size have an influence on practitioners' incentives to adopt the FRSSE. Their work devotes a great effort to calibrate companies' adoption costs and benefits. Different from Gwilliam et al. (2005) who calculate social and private value of financial

reporting regimes, Reid and Smith (2007a, 2007b) emphasise individuals' subjective estimation (i.e., private value) (Mises, 1998).

Additionally, literature which emphasises the early adoption or the voluntary adoption of a financial reporting regime also provides crucial evidence on firms' financial reporting regime choices (Daske, Hail, Leuz, & Verdi, 2013). For example, European firms' regime choices between national GAAP and International Accounting Standards (IAS) or US GAAP form the central focus of a study by Cuijpers and Buijink (2005). In their research, it is found that most of sampled firms elect national GAAP as their financial reporting regimes. The writers argue that the results imply companies often do not perceive positive net benefits from using IAS or US GAAP. They further illustrate that multinational companies or companies facing inferior local GAAP might have more incentives to choose US GAAP or IAS. Furthermore, in an early analysis of IFRS, Jermakowicz and Gornik-Tomaszewski (2006) attempt to discover why some companies choose to adopt IFRS early before the mandatory adoption, but others do not. To answer this question, they scrutinise firm-specific attributes. Inconsistent with prior literature, their finding suggests that firm size might not have a large impact on companies' decision of the early adoption. Moreover, by testing cross-country data, Covrig, Defond, and Hung (2007) document that companies might voluntarily report under IAS and IFRS in order to appeal to investors in other countries. They also highlight that firms with constrained ability to catch foreign shareholders' attention might have more incentives to use IAS and IFRS than the other firms. In reviewing literature on companies' regime choices between IAS and US GAAP, Soderstrom and Sun (2007) note that firms have different adoption motivations, which could be categorised into "financial market

development, capital structure, ownership and tax system" (p. 688). In addition, to better understand the impact of IFRS adoption on companies, Daske, Hail, Leuz, and Verdi (2008) examine firms' performances subsequent to the implementation of IFRS. They prove that the application of IFRS is generally accompanied by higher market liquidity and valuation, and lower cost of capital. They also show that firms, which adopt IFRS early or voluntarily, tend to receive larger benefits regarding the above three aspects than companies that are required to use IFRS. The finding may help us to understand how companies determine their financial reporting regimes and their attitudes towards IFRS.

After reviewing relevant work of companies' regime decisions, we find that the existing literature, which often make a conclusion based on the results obtained by statistical tests and focuses more on companies' consequential stock market performance, seldom explores the rationale behind individual firms' regime choices in great depth. As pointed out by Soderstrom and Sun (2007), firms' characteristics as well as regulatory environments significantly influence companies' accounting choices. Hodge et al. (2006) also ask more scholars to explore crucial factors, which influence companies' decisions in financial reporting. Hence, in order to provide more evidence on how companies make regime decisions and the reasoning around their choices, this thesis will scrutinise individual companies' financial reporting choices and conduct a comparative analysis of UK and Taiwan. Similar to Jermakowicz and Gornik-Tomaszewski (2006), this thesis combines information obtained by a questionnaire survey and interviews. Different from prior studies, our research particularly focuses on analysing quantitative data, and aims to supply important insight into companies' decision making in financial reporting.

Furthermore, as indicated by Jermakowicz and Gornik-Tomaszewski (2006), their work might be limited because the majority of their sampled firms are large firms. Our sample involves firms with various firm sizes, including small, medium, and large firms. Hence, this should give us a more complete picture of how firms choose their accounting modes.

2.2.3 Considering Regime Choices and Technique Choices Together: A Two-Stage Choice Model

The above section reviews the literature which discusses choices over financial reporting regimes and techniques. Even though there is a large volume of published research discussing firms' accounting choices, few writers have been able to draw on research into analysing regime choices and technique choices together (Bruggemann et al., 2013). For example, Cazavan-Jeny et al. (2011) briefly point out that the treatment of R&D costs is one of the major differences across various regimes. Ewert and Wagenhofer (2005) investigate firms' use of techniques to influence earnings. They argue that accounting authorities could not successfully govern firms' behaviours in earnings management by imposing a strict financial reporting regime.

However, none of the studies carefully examines the relationship between regime choices and technique choices. Furthermore, to the extent of our knowledge, the existing literature does not examine the process of how these two choices are made (e.g., whether companies make regime and technique choices simultaneously, or in stages). Since techniques are methods that firms could use under a regime, regime choices and technique choices should be correlated with each other to some degree. In a meta-study of choices in financial reporting, Fields et al. (2001) also highlight the need for future research to consider multiple accounting choices at the same time.

They expect that by doing so the studies could provide more complete information about accounting decisions, and benefits practitioners. This view is supported by Missonier-Piera (2004) who examines several accounting choices that Swiss companies have. These choices involve techniques for treating intangibles (A. Beatty & Weber, 2006; Canibano et al., 2000), recognising development costs (Ahmed & Falk, 2006; Cazavan-Jeny et al., 2011), and valuing securities (Barth, 1994) and inventories (Gul, 2001). Although he indicates that Swiss firms could choose from amongst several financial reporting regimes, he emphasises companies' technique choices without further addressing how regime choices and technique choices influence each other, or how technique choices vary across different regimes.

Rising to this challenge, this thesis will analyse the two main accounting choices, which companies can make (viz., regime choices and technique choices) simultaneously. Inspired by the knowledge from other fields, such as transportation and marketing (Kelly et al., 2007; Moe, 2006; Tellis, 1988; Um & Crompton, 1990), this research will establish a two-stage choice model of financial reporting regimes and techniques, to further understand firms' choice behaviours in accounting. Since travel choice is one of the most significant discussions in behavioural studies, an analogous choice model in travel studies is introduced to help to explain the idea of our accounting choice model.

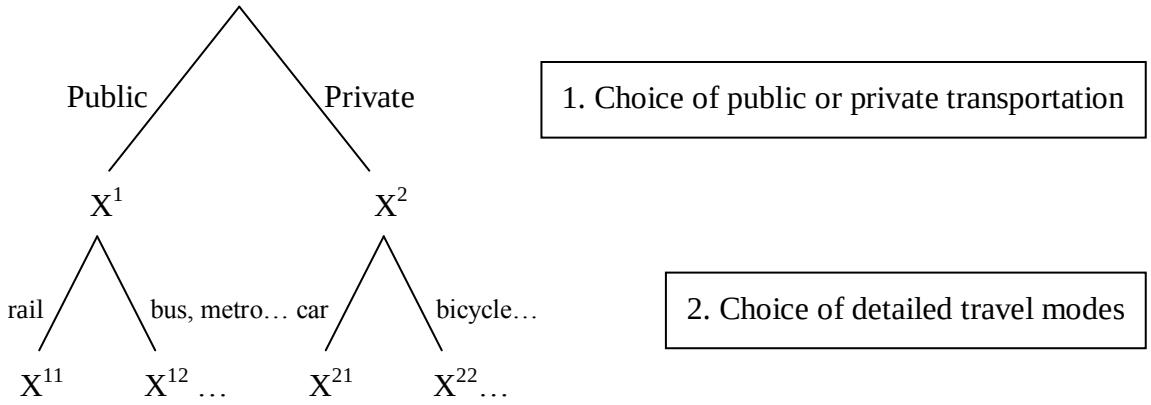
A Two-Stage Choice Model of Travelling Methods

Individuals' choices regarding travel methods are widely discussed in literature (Beirao & Cabral, 2007; Florian, 1977; Hensher, 1994). Studies often investigate whether travellers prefer to use public transportation or private transportation (Beirao

& Cabral, 2007; Florian, 1977). Public and private transportations are both broad categories of travelling ways. There are several methods belong to the public transportation category, such as rail, bus, metro and tram (Kelly et al., 2007; Paulley et al., 2006). For people who travel by private transportation, the choices might include car, bicycle, or walking (Garling & Schuitema, 2007; Kelly et al., 2007).

Hensher (1994, p. 114) indicates that individuals might group travel alternatives when making decisions, and this leads to a ”hierarchical” choice problem. In a piece of research exploring the influence of transportation tools on environment, Kelly et al. (2007) draw a two-stage choice model of travel. The first stage of this model is mainly the choices between private transportation and public transportation. The second stage includes detailed options under the above two categories. For instance, bus and rail are different methods of public transportation, which individual could choose to travel. On the basis of Kelly et al.’s research (2007), a generalised two-stage choice model of travelling methods is presented in Figure 2.1. This two-stage model of travel choices is very helpful for establishing a similar model to study accounting choices. In this travel choice problem, the detailed travelling modes are classified into public or private transportation. In accounting, techniques, which companies can select, depend on the regulation of regimes. Regimes are the broad categories, and techniques are options under these categories. However, there is a large difference between our model and this travel choice model. In the travel choice model, each alternative in the second stage is a single option, such as car or bus. In the accounting choice model, an alternative in the second stage represents a combination of techniques for treating different parts of financial reports. This will be further explained later in this section (near Figure 2.4).

Figure 2.1: The Two-Stage Choice Model of Travelling Methods



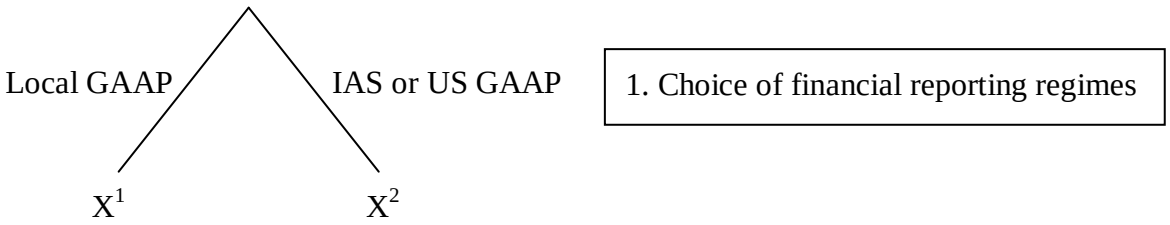
In a study discussing the use of the stated preference method in studying travel decisions, Hensher (1994, p. 123) proposes that "a sequential or a simultaneous scaling approach can be used" to estimate individuals' choice behaviours in a choice problem consisting of more than one stages. This concept will be extended in Section 2.3.2, which illustrates how the sequential logit model and the nested logit model might help to measure respondents' decisions in the two-stage choice model. Different from Hensher's work (1994), this thesis further applies two preference orderings, lexicographic and colexicographic orderings, to formally explain possible decision-making processes (see Section 2.3.1 and Section 3.5). Additionally, our research identifies two types of sequential choices, and one nested choice, in the two-stage choice model (see Section 2.3.1 and Section 3.5). This provides a more complete picture of how individuals might behave when facing a two-stage choice problem. Using these preference orderings to analyse accounting choices will also advance relevant literature in this area (see Chapters 7 through 9).

A Two-Stage Choice Model of Accounting Modes

When applying the two-stage choice concept of travelling to accounting choices, this

thesis considers the choice of a financial reporting regime as the choice in the first stage. The second stage is the choice of financial reporting techniques, which are available under each regime. Since prior studies focus on regime choices or technique choices solely, the choice issues they discussed are one-stage choice problems. Firstly, the one-stage regime choice is explained as follows: As mentioned above, the majority of the literature regarding regimes only considers different financial reporting regimes, without further discussion of technique options across regimes. For instance, Nelson (2003), Agoglia et al. (2011), and Collins et al. (2012) explore whether companies behave differently under principles-based regimes and rules-based regimes. They compare and contrast these two types of regimes, but do not continue to investigate technique choices. Hence, it can be said that the accounting issue, which they consider, is a one-stage problem of regimes. Another more straightforward example can be found in Reid and Smith's work (2007a, 2007b). The writers conduct a survey to discover practitioners' choices of implementing the FRSSE, and show that associated costs and benefits influence individuals' adoption decisions. They emphasise whether companies choose to report under the FRSSE or under other regimes. In their research, whether different techniques are available under various regimes is not explained. Therefore, they also focus on a one-stage choice problem of regimes. Figure 2.2 presents a decision tree of a one-stage choice of regimes. The tree is drawn using the framework of Cuijpers and Buijink's study (2005), where the regime choices, local GAAP versus IAS or US GAAP, are examined. This figure could also be applied to show other one-stage choice of financial reporting regimes, with little revision where appropriate.

Figure 2.2: An Illustration of Choices of Financial Reporting Regimes



Secondly, the following paragraphs elaborate the one-stage choice of techniques. The basic idea here is similar to the one-stage regime choice. As with the situation in regime studies, the majority of existing research about technique choices does not remark on regime choices. For example, Dhaliwal et al. (1982) scrutinise whether the agency problem influences companies' choices of depreciation techniques. Their results suggest that the structure of ownership does affect firms' preferences towards different depreciation treatments, such as the accelerated method and straight-line method. They focus on technique choices of depreciation, and do not pay attention to regimes. Thus, the choice problem in their work is a one-stage choice of techniques. There are more examples about the one-stage technique choice exhibited as follows: Gul (2001) discusses two alternatives to treat inventory, which are LIFO and FIFO. Hodder and Hopkins (2014) investigate financial institutions' technique choices of valuing loans, including the fair value approach and the cost approach. In these studies regarding technique choices, researchers do not analyse regime choices. Thus, the topic of their studies can be regarded as a one-stage choice of techniques. Figure 2.3 demonstrates a decision tree of a one-stage technique choice. It is based on Cazavan-Jeny et al.'s paper (2011), which inspects whether companies prefer to recognise development costs as assets or expenses. This figure could also be used to

describe other one-stage technique choice problems, with few modifications if needed.

Figure 2.3: An Illustration of Choices of Financial Reporting Techniques for Recognising Development Costs

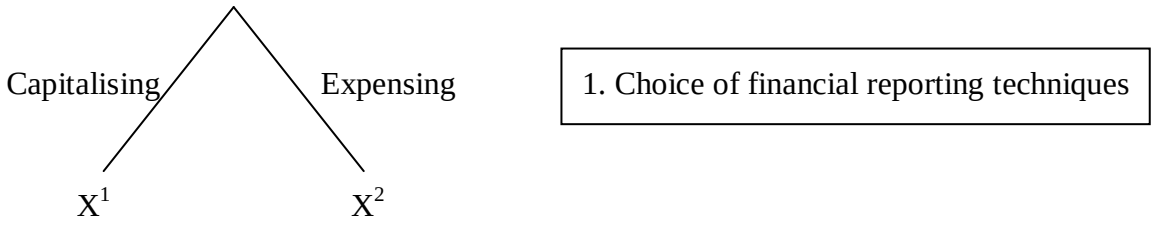
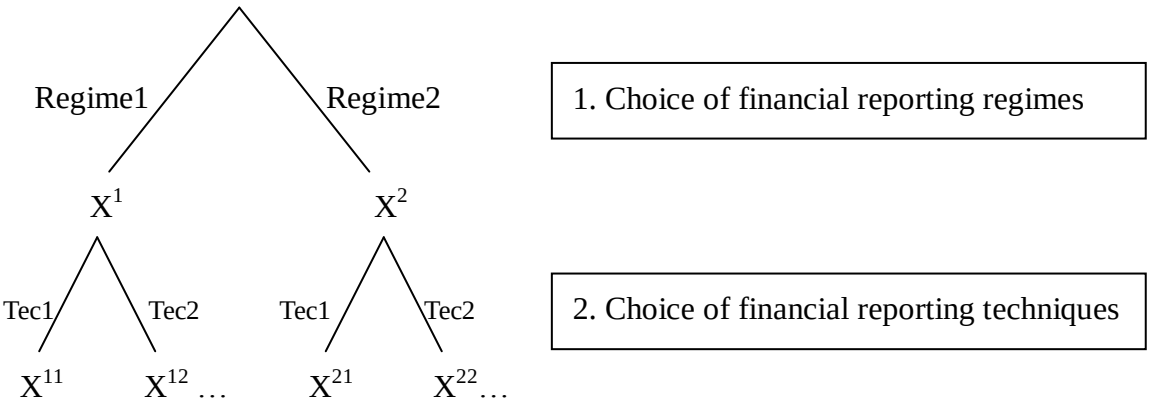


Figure 2.4: The Two-Stage Choice Model of Financial Reporting Regimes and Techniques



Combining the above two one-stage choice problems (see Figure 2.2 and Figure 2.3), this thesis establishes a two-stage choice model of accounting modes, which is illustrated in Figure 2.4. The first stage is the choice of financial reporting regimes, which might be IFRS, local GAAP, or other financial reporting standards (Covrig et al., 2007; Cuijpers & Buijink, 2005; Smith & Reid, 2008). The second stage is the choice of technique combinations, which could involve techniques for valuing investments, recognising development costs, treating intangibles, dealing with taxes or pensions, or amortising assets (Ahmed & Falk, 2006; A. Beatty & Weber, 2006;

Carroll et al., 2003; Francis, 1987; Frank, Lynch, & Rego, 2009; Henning & Shaw, 2003). The technique choices may vary across regimes because different regimes often allow different techniques and some regimes permit more techniques than others (Messier et al., 2014). Our research advances literature in accounting choices, by extending the one-stage choice problem to the two-stage choice problem. This two-stage choice model makes it possible to explore the connection of regime choices and technique choices, and should generate more useful information on accounting decisions (Bruggemann et al., 2013; Fields et al., 2001; Missonier-Piera, 2004). The complete two-stage choice models of financial reporting modes using UK and Taiwanese frameworks will be illustrated in Chapter 3.

It is worth noting that although we name this model a two-stage choice problem, we do not mean that companies must make the decisions in stages. In addition, we do not rule out the possibility that companies determine techniques before they make regime choices, even though technique choices are said to be in the second stage. Section 2.3.1 will introduce two preference orderings, which help to formally express how accounting choices are made in this two-stage choice model, and will identify three possible choice patterns. Section 2.3.2 will further propose two econometric models, which have the potential to estimate choice behaviours in future studies. Chapter 3 (particularly Section 3.5) will integrate preference orderings, econometric techniques, and the two-stage choice model into accounting practices. The aim of the two-stage choice model of financial reporting modes is to accommodate both regime choices and technique choices, and enhance our understanding of how firms make accounting choices (Fields et al., 2001). Companies' decision-making processes in this two-stage choice model will be carefully investigated in Chapter 7 and Chapter 8,

using survey and interview data.

2.2.4 Behavioural Studies in Finance and Accounting

There is ample literature discussing firms' choice behaviour in financial reporting or in relevant areas (Simon, 1959; March, 1987). These studies normally mention the concept of utility maximisation, as an indicator of rational choices (Mouritsen, 1994). In an important study of choices in financial reporting, Holthausen (1990) summarises three main approaches to elaborate firms' choosing behaviour. They are "the opportunistic behavior, efficient contracting, and information perspectives" (Holthausen, 1990, p. 207). Firstly, the opportunism hypothesis refers to managers electing financial reporting modes to benefit themselves. The second concept, efficiency, means the contract is efficient to reduce agency problems, and therefore the aim of accounting decisions is to maximise the profits of firms. Thirdly, the information perspective suggests that accounting choices serve as signals of companies' future performance. In the same vein as Holthausen (1990), Fields et al. (2001) examine research on accounting choices and explore factors, which affect firms' choices of financial reporting modes from three aspects. These perspectives are "agency costs, information asymmetries, and externalities affecting non-contracting parties" (Fields et al., 2001, p. 257).

In recent years, much literature has emphasised particular decisions, which companies made in financial reporting (Cardinaels, 2008). For example, Shu et al. (2012) inspect how firms' behaviour in financial reporting influences investors' valuations of IPO. They mention that firms might take advantage of the flexibility in booking accruals, to influence the earnings. The authors also document that certain

investors are able to distinguish companies' incentives behind those decisions, and value these firms differently. Furthermore, Riley, Semin, and Yen (2013) illustrate that companies often have different ways of conveying financial information, and this might have an influence on their ability to attract potential shareholders. The results of their research imply that a vague way of writing negative news and a straightforward writing style to present positive information could enhance investors' willingness for investments. The above two behavioural studies discuss how the market react to firms' choices. There are also studies exploring the impact of management's behaviour on the corporation itself. For instance, Kruis and Widener (2014, p. 2) aim to provide evidence on whether managers' involvements help to create a better "performance measurement system (PMS)." Inconsistent with other literature, they find that sometimes it is not good to make management deal with PMS.

Additionally, various approaches are used by researchers to discover individual's choice behaviours in accounting: experimental, field, and theoretical studies (Bouwman, Frishkoff, & Frishkoff, 1987; Libby, Bloomfield & Nelson, 2002; Trotman et al., 2011). In 2002, Ittner and Larcker indicate that it is crucial to consider practices in accounting research. They (2002, p. 788) write that "accounting is fundamentally an applied research area that should ultimately provide new insights for practice. … It is difficult to imagine how research in an applied discipline such as managerial accounting could evolve without the benefit of detailed examination of actual practices." They also address that practical studies help to connect theories with real situations, and could contribute to both literature and practice. Therefore, our research uses the UK and Taiwanese firm data obtained from surveys and

interviews to explore choices of financial reporting regimes and techniques, and to enhance our understanding of accounting practices (Cooper & Morgan, 2008).

There are several important theories and concepts often mentioned in studies regarding choices (Hogarth, 1993). The following summarises crucial issues, which we might encounter later in case studies. These principles can help to discuss firms' behaviour with regard to financial reporting in the coming chapters.

The first concept is the use of judgement in decision-making. Ball (2006) illustrates that under the IFRS companies have to evaluate a considerable amount, and managers' incentives and national attributes will influence their evaluations. Several researchers focus on people's judgement when choice problems have high uncertainty or complexity (Griffin, Claxton, Palmer, & Sculpher, 2011; Lehmann & Norman, 2006; Olsen, 2002; Thrane, 2007). Olsen (2002) studies investors' behaviours, and points out that people are inclined to make decisions subjectively when facing a complicated situation. Scholars also address that experience might also influence people's judgement (Anderson, 1988; Lehmann & Norman, 2006; Libby et al., 2002).

Secondly, there are ample studies, which mention the bounded rationality and the use of heuristics in decision-making (Burmeister & Schade, 2007; Dietrich, Kachelmeier, Kleinmuntz, & Linsmeier, 2001; Scapens, 1994). Einhorn and Hogarth (1981) indicate that people might make decisions based on previous experiences (i.e., use heuristic rules) under complicated circumstances. This often leads to a choice, which is not "optimal" but "good enough" in the situation (i.e., bounded rationality, see Simon, 1979, pp. 498-499). In a theoretical work of accounting information,

Dickhaut and Lere (1983) manage to show that in special situations the implementation of heuristics could reach optimal results. Nonetheless, Benartzi, and Thaler (2007) demonstrate that people frequently apply heuristic rules in pension arrangements, and the outcomes are rarely beneficial.

Furthermore, several accounting and finance studies discuss the concept of status quo. For instance, W. Samuelson and Zeckhauser (1988) use experimental data to document that individuals tend to be reluctant to change their financial arrangement, such as the health insurance and retirement plan. Also using the experiment approach, Burmeister and Schade (2007) examine how often people choose the status quo when making decisions. They illustrate that bankers are more likely to do so than students and entrepreneurs. More relevant to our research, Messier et al. (2014) elaborate that auditors might take advantage of discretion in financial reporting, and prefer the status quo when facing changes in the accounting regulations, on the basis of experiment results. In contrast to previous experimental studies, our research collects and discusses the data of firms' real accounting choices. Hence, this thesis should provide an exciting opportunity to advance our knowledge of companies' decisions in accounting practices.

The above literature review shows the importance and usefulness of behavioural studies in accounting. In the work of Fields et al. (2001), they scrutinise relevant research in this area, and point out the need for further explanation of financial reporting choices. Our study investigates companies' choice behaviour when facing latest important policy changes in the accounting regulations, such as how Taiwanese public firms respond to compulsory IFRS adoption, and how UK firms react to the introduction of New UK GAAP. Hence, this research anticipates the advancement of

current research by providing more information about firms' rationale behind their financial reporting decisions. It should be noted that "public firms" in this thesis refer to "publicly listed firms" unless otherwise specified.

2.3 Theory of Choosing and Estimation

After detailed examination of literature dealing with accounting choices, Fields et al. (2001) indicate that this area requires more work on theoretical explanation for firms' decisions over financial reporting, and new econometric techniques. This thesis aims to make an important contribution to research in this field, by offering new theoretical interpretation and econometric tools, which are illustrated in this section. In addition to the concepts of choice behaviour mentioned in Section 2.2.4, two preference orderings are introduced as follows to elaborate companies' decision-making processes of regime choices and technique choices. Moreover, this section presents potential econometric techniques to estimate firms' choice patterns in the two-stage choice model (see Section 2.3.2 and Chapter 3).

2.3.1 Preference Orderings: Lexicographic Ordering and Colexicographic Ordering

Individuals have different preferences towards various options, and their attitudes heavily affect their choices. This is true for companies as well (Simon, 1959). Firms' preferences towards techniques and regimes will influence their choice behaviour in accounting. This section introduces two types of preference orderings to help to explain companies' decision-making processes in the two-stage choice problem of financial reporting modes. These orderings are the lexicographic and the colexicographic orderings.

Lexicographic Ordering

Assuming X and Y are ordered sets, which are available for decision makers. Let $X=(x_1, x_2)$ and $Y=(y_1,y_2)$, where x_i and y_i are corresponding utilities of X and Y. If an individual's preference follows a lexicographic order, X is preferred to Y iff $x_1 > y_1$, or $x_1 = y_1$ and $x_2 > y_2$ (Colman & Stirk, 1999; Houy & Tadenuma, 2009).

In the framework of a two-stage choice model, we suppose x_1 and y_1 are the utilities of choice in the first stage, and we regard x_2 and y_2 as the utilities of choice in the second stage. In this situation, if an individual applies a lexicographic ordering, it implies that he or she first deals with the choice problem of the first stage (i.e., considering utilities x_1 and y_1), and then determines the options in the second stage (i.e., evaluating utilities x_2 and y_2). This decision-making process can be seen as a sequential choice, which moves from the first stage to the second stage. Literature also presents that this sequence often indicates the relative importance of choices in different stages (Birnbaum, 2010; Colman & Stirk, 1999). Specifically, when people perceive that choices in the first stage are more crucial than those in the second stage, people tend to make decisions in a lexicographic order.

Colexicographic Ordering

Building on the studies of Bekmetjev, Brightwell, Czygrinow, and Hurlbert (2003) and Castano and Castano (2012), we demonstrate another preference ordering, the colexicographic ordering. This ordering is similar to the lexicographic ordering, whereas it compares elements of each choice set from the opposite direction (Agrawal & Salinas, 1988; Bekmetjev et al., 2003; Heuberger & Muir, 2007).

Again, assume $X=(x_1, x_2)$ and $Y=(y_1,y_2)$ are choosable ordered sets, where x_i and y_i are corresponding utilities of X and Y. A colexicographic ordering implies that X is preferred to Y iff $x_2 > y_2$, or $x_2 = y_2$ and $x_1 > y_1$. Following the discussion of lexicographic orderings, we let x_1 and y_1 be the utilities of choice in the first stage, and consider x_2 and y_2 as the utilities of choice in the second stage, to apply this preference ordering to a two-stage choice problem. When an individual's preference satisfies a colexicographic order, he or she considers the choices listed in the second stage (i.e., comparing utilities x_2 and y_2) before making decisions about the choices in the first stage (i.e., weighing utilities x_1 and y_1). This choice pattern can also be categorised as a sequential decision. Nonetheless, it is the exact opposite of the case of a lexicographic ordering. The decision following a colexicographic ordering starts from the second stage. As with the situation in lexicographic orderings, colexicographic orderings also involve decision makers' priority of choices (Castano & Castano, 2012). That is, when individuals care more about the choice problem of the second stage than that of the first stage, they tend to apply a colexicographic orderings.

Discussion of Preference Orderings

There is a large amount of literature discussing lexicographic orderings and the representation of utility functions (Lancsar & Louviere, 2006; Manzini & Mariotti, 2012). Fishburn (1974) demonstrates that if the commodity space X_i is countable (as in the data generated by our questionnaire), then there is a mapping from commodities to real numbers, such that $x <^L y$ iff $u(x) < u(y)$, where x and y are components belonging to X_i, u(.) indicates the utility, and $<^L$ is a lexicographic order. Additionally, Knoblauch (2005) has analysed a lexicographic order that is consistent

with a utility representation. She considers a group of executives, each of whom has preferences defined by an individual utility function. She shows that group preferences may also have a utility function representation and that for such cases, team preferences can indeed be represented lexicographically. Furthermore, Kohli and Jedidi (2007) prove that a lexicographic ordering might be shown using a linear utility function, and document that this utility presentation could exist when the choice problems are at discrete stages, which is particularly relevant to how data is generated in our research.

While lexicographic orderings play an important role in studies of choice behaviours in Economics, there has been very little accounting research, which applies lexicographic preferences. To the best of our knowledge, only one study has attempted to analyse accounting choices using lexicographic orderings. In an experimental study of decisions in auditing, Uecker and Kinney (1977) illustrate that practitioners might prioritise certain rules and apply lexicographic orderings when making judgements. Section 2.3.2 suggests that the sequential logit model could be used in future research to estimate the lexicographic decision in the two-stage choice problem.

Moreover, colexicographic orderings are often discussed in Mathematics, and have not been widely applied to choice studies (Agrawal & Salinas, 1988; Heuberger & Muir, 2007). As far as we know, no single study exists which explains firms' accounting choices by colexicographic preferences. Therefore, this thesis aims to make an original contribution to financial reporting choices, by providing new theoretical explanations (viz., lexicographic and colexicographic orderings) for companies' accounting decisions.

In addition to the above two preference orderings, there might be other decision-making patterns in the two-stage choice model. For example, individuals might elect options from both stages simultaneously (Hensher, 1994; Tabuchi, 1994; Tu & Goldfinch, 1996). In this thesis, this type of case will be called nested choices, un-staged choices or choices which are not made in stages. The following research presents an example of nested choices. In an analysis of households' involvement in livestock markets, Bellemare and Barrett (2006) establish a two-stage choice model, where the first stage is about whether households take part in markets (if yes, by what means), and the second stage is regarding the amount of transactions. They demonstrate that people may make decisions in stages or simultaneously. Their results of empirical data suggest that the sequential choice leads to a better outcome than the nested choice. Section 2.3.2 offers a potential econometric technique, namely the nested logit model, which researchers might consider in the future for documenting the nested choice pattern in the two-stage choice model.

Grounded in this section, Chapter 3 will illustrate how the above concepts and preference orderings might help to explain companies' decision-making processes in the two-stage choice model of financial reporting regimes and techniques. Furthermore, in order to analyse firms' choice behaviours, this research will apply a stated preference approach to capture companies' preferences towards financial reporting regimes and techniques. The reasons why stated preference theory might be useful to study accounting choices will be elaborated upon in Section 2.4.

2.3.2 Econometric Estimation

In the previous section (viz., Section 2.3.1) three different types of choice patterns in

the two-stage choice model were illustrated. This section introduces two advanced logit models, which might be helpful to estimate firms' decision-making processes. Through applying the stated preference models (see Section 2.4), this study can measure firms' preferences towards various financial reporting modes. Researchers could further explore firms' choice behaviour in the two-stage choice problem, using the econometric techniques presented in this section.

In principle, it is possible to use the sequential logit model to analyse the sequential choice where respondents' preference ordering is lexicographic, and to apply the nested logit model to examine the nested choice where firms consider choices in both stages simultaneously. However, given the limitation of data, we are not able to document it in this thesis. This idea could be extended in future studies where data is available. So far these advanced econometric techniques have only been applied to very few studies of financial reporting (Jones & Hensher, 2007; Simnett, Vanstraelen, & Chua, 2009). Therefore, this thesis presents a new potential application of the sequential logit model and the nested logit model in accounting research.

Sequential Logit

This section shows the sequential logit model used in Nagakura and Kobayashi's paper (2009). Suppose in a two-stage choice problem, an individual make decisions in a lexicographic order. He or she first elects a subset C_I from the complete choice set C, where there are m subsets (C_1, C_2,…, C_m). Each subset C_k consists of n_k options. The probability that this individual will choose subset C_I at the first stage is as follows:

$$p_{C_I} = \Pr(y \in C_I) = \frac{e^{x'\alpha_I}}{\sum_{J=1}^{m} e^{x'\alpha_J}} \quad (2.1)$$

Following the decision of stage one, the individual will then choose an alternative i from the chosen subset C_I. The conditional probability that this person elects the option i is expressed in Equation 2.2.

$$p_{i|C_I} = \Pr(y = i \mid C_I) = \frac{e^{x'\beta_i}}{\sum_{j \in C_I} e^{x'\beta_j}} \quad (2.2)$$

, where α and β are vectors of coefficients, and x is the vector of independent variables.

When Equation 2.1 and Equation 2.2 are combined, the probability that this person will choose alternative i in the two-stage choice model is p_i

$$= p_{i|C_I} \text{ x } p_{C_I} = \Pr(y = i \mid C_I) \text{ x } \Pr(y \in C_I) \quad (2.3)$$

The sequential logit model would be useful when studying the lexicographic choice behaviour. Using Equation 2.1 to Equation 2.3, scholars could estimate the probability that an individual, who makes decisions in a lexicographic order, elects a specific alternative in the two-stage choice problem.

It should be noted that the sequential logit model assumes the decision in the first stage is independent of the choice problem in the second stage (Nagakura & Kobayashi, 2009; Van Ophem & Schram, 1997). For example, in a study of labours' choices over unions, Van Ophem and Schram (1997) establish a two-stage choice model, where the first stage is the decision of whether to join a union, and the second stage is to select a specific union. By statistical tests, they document that labours

make the union decisions in stages (from stage one to stage two), and the options in the second stage do not have an impact on the choices in the first.

Nested Logit

The following paragraphs present the nested logit model adopted in the work of Cameron and Trivedi (2005) and Nagakura and Kobayashi (2009). The nested logit model is based on the random utility theory. Under this theory, the basic model utilised to measure an individual's utilities of an option i is $U_i = x'\beta_i + \varepsilon_i$, where x is the vector of independent variables, β is the coefficient vector, and ε is the stochastic error term. Furthermore, $x = \bigcup_{i=1}^{I} z_i$ could be applied when independent variables vary across alternatives. Under the assumption that the joint distribution of error terms satisfies the generalised extreme value distribution, the nested logit model could be obtained as follows:

Consider a choice set C, which consists of m subsets (C_1, C_2,…, C_m). Suppose there are n_k options, under each subset C_k. Then, the probability of choosing alternative i, which belongs to C_I, is p_i

$$= p_{i|C_I} \text{ x } p_{C_I} = \Pr(y = i \mid C_I) \text{ x } \Pr(y \in C_I) \tag{2.4}$$

and

$$p_{i|C_I} = \Pr(y = i \mid C_I) = \frac{e^{x'\beta_i/\rho_I}}{\sum_{j \in C_I} e^{x'\beta_j/\rho_I}} \tag{2.5}$$

$$p_{C_I} = \Pr(y \in C_I) = \frac{[\sum_{j \in C_I} e^{x'\beta_j/\rho_I}]^{\rho_I}}{\sum_{J=1}^{m} [\sum_{j \in C_J} e^{x'\beta_j/\rho_J}]^{\rho_J}} \tag{2.6}$$

Where $\rho_I = \sqrt{1 - \mathrm{cov}(\varepsilon_i, \varepsilon_j)}$ is used to estimate the level of dependence between alternatives within a choice subset C_I. The value of ρ_I is very important because it determines the desired type of the model (Hensher, 1986; Nagakura & Kobayashi, 2009). Specifically, $\rho_I = 0$ indicates that the nested model becomes a sequential logit model. Moreover, $\rho_I = 1$ implies that the nested logit model is scaled down to a multinomial logit model.

By Equation 2.4 to Equation 2.6, it can be ascertained that the probability that an individual who makes decisions simultaneously chooses option i in the two-stage choice model. Hence, the nested logit model is suitable to deal with the nested choice. Moreover, it is important to bear in mind that the nested logit model suggests decision makers consider the whole choice problem simultaneously, and the choice in the second stage has an influence on that in the first (Hensher, 1986; Nagakura & Kobayashi, 2009; Van Ophem & Schram, 1997). For instance, Nagakura and Kobayashi (2009) explore a two-stage choice problem of employment, where the choice in the first stage is whether an individual chooses to work, and the second stage is regarding working hours. They document that married women make the employment choices simultaneously, and this implies that the choices made at different stages influence each other.

Test of Sequential Logit Model and Nested Logit Model

In order to discern individuals' decision-making process, it is necessary to distinguish between the sequential logit model and the nested logit model. Nagakura and Kobayashi (2009) prove that it can be done by statistical tests. This concept is relative new, and this thesis aims to extend the application of this econometric

technique to the studies of financial reporting choices. In order to confirm individuals' choice patterns in the two-stage choice model, researchers can conduct the following tests, which are mainly based on Nagakura and Kobayashi's work (2009).

As mentioned earlier in the representation of the nested logit model, ρ_I, a measurement of correlation between alternatives within the same choice subset C_I, plays a crucial role in deciding the form of the model (Hensher, 1986; Nagakura & Kobayashi, 2009). That is, when $\rho_I = 0$, it is a sequential logit model, which suggests a sequential choice with a lexicographic ordering. When $\rho_I = 1$, it is a multinomial logit model, which implies a simultaneous choice. Prior studies show ρ_I satisfies the χ^2 distribution. They also recommend the use of the Wald, likelihood ratio and Lagrange multiplier tests to examine the null hypothesis, H_0: $\rho_I = 0$, in such examples (J. Hausman & McFadden, 1984; Nagakura & Kobayashi, 2009). If the null hypothesis is not rejected, there is insufficient evidence to reject the validity of the sequential logit model. If the null hypothesis is rejected, there is enough evidence to support the model not being a sequential logit model. This implies that individuals are more likely to evaluate choices in various stages together. In addition, the multinomial logit model is an extreme case of the nested logit model where $\rho_I = 1$. Scholars can also test the null hypothesis H_0: $\rho_I = 1$ to obtain robust results. Furthermore, researchers can conduct a likelihood ratio test to estimate whether the sequential logit model or the nested logit model is more suitable for this choice problem. Therefore, the above econometric techniques should help to analyse lexicographic choices (i.e., by the sequential logit model), and nested choices (i.e., by the nested logit model). However, because of the complexity of the colexicographic order, a model to measure this type of choice behaviour has not been found. Because

of the limitation of data, this thesis does not use the sequential logit model or the nested logit model to estimate companies' accounting choices. Nonetheless, it can be seen that these econometric techniques have the potential and could be adopted by future research.

2.4 Stated Preference Theory and Cost-Benefit Analysis

Section 2.3 has indicated possible decision-making processes, and the econometric techniques, which could be used to estimate these choice patterns. In order to understand companies' choice behaviour and employ a suitable statistical model, it is very important to know firms' preferences towards various financial reporting modes. Hence, this section illustrates the key theory, stated preference theory, which this research applies to capture firms' preferences. The relevant theories will be elaborated upon in Section 2.4.1.

Additionally, this study aims to discover whether choices made by firms are rational. In economics, it is always suggested that individuals should implement the cost-benefit principle when making decisions. For this reason, on the basis of stated preference theory, this thesis will conduct a cost-benefit analysis to discuss companies' choices in financial reporting. Section 2.4.2 will review the literature, which examines costs and benefits in accounting.

Previous studies have pointed out that new research instruments are necessary to advance studies of financial reporting choices (Fields et al. 2001; Schipper 2010). Therefore, this work is anticipated to contribute to this area of research by offering potential research tools.

2.4.1 Revealed Preference and Stated Preference Theory

The following introduces two commonly used theories in measuring preferences (Azevedo, Herriges, & Kling, 2003; Lancsar & Louviere, 2006). They are revealed preference theory and stated preference theory.

Revealed Preferences

Revealed preference is the preference that people disclose in markets (P. A. Samuelson 1948). Revealed Preference Theory is regarded to be very useful because the theory makes it possible to capture individuals' underlying preferences by observing actual choices (Azevedo et al., 2003; T. K. Beatty & Crawford, 2011; McFadden, 2005). Based on the books of Varian (1984), and Varian and Repcheck (2010), the following presents the basic concepts of revealed preference theory. If an individual is rational, he or she will try to maximise his or her utilities. Given a budget constraint, this person will then choose the commodity bundle, which leads to the highest value (Richter, 1966). Suppose an individual always elects the most preferred commodity bundle, which is available considering the budget. In this situation, the commodity bundle the person chooses will be preferred to other affordable bundles.

Another way to explain the idea of revealed reference theory is as follows: There are two different baskets of goods, $\mathbf{x}_1$ and $\mathbf{x}_2$, which an individual could afford, given the budget m_1 and the price vector $\mathbf{p}_1$. Assuming $\mathbf{p}_1\mathbf{x}_1 > \mathbf{p}_1\mathbf{x}_2$, and $\mathbf{x}_1$ is chosen in this case (i.e., $\mathbf{x}_1$ is *directly revealed preferred* to $\mathbf{x}_2$). The revealed preference theory suggests that $\mathbf{x}_1$ is preferred to $\mathbf{x}_2$ (i.e., $\mathbf{x}_1 \succ \mathbf{x}_2$), if the choice is rational.

In addition to the directly revealed preference, there is an indirectly revealed preference as follows: Let $\mathbf{x}_1$, $\mathbf{x}_2$, and $\mathbf{x}_3$ be three distinct consumption bundles, which are available to an individual, given the budget m_1 and the price vector $\mathbf{p}_1$. Make assumptions that basket $\mathbf{x}_1$ is directly revealed as preferred to basket $\mathbf{x}_2$, and basket $\mathbf{x}_2$ is directly revealed as preferred to basket $\mathbf{x}_3$. If preferences are transitive, $\mathbf{x}_1$ will be *indirectly revealed preferred* to $\mathbf{x}_3$.

There are two important axioms of revealed preference (Varian & Repcheck, 2010). They are the weak axiom of revealed preference (WARP), and the strong axiom of revealed preference (SARP). WARP and SARP are explained in the following, respectively. Firstly, suppose $\mathbf{x}_1$ and $\mathbf{x}_2$, are two different baskets of goods, which are choosable for an individual, given the budget m_1 and the price vector $\mathbf{p}_1$. Let $\mathbf{x}_1$ be the chosen basket at $\mathbf{p}_1$ within the budget m_1. According to WARP, if $\mathbf{x}_1$ is *directly revealed preferred* to $\mathbf{x}_2$, then $\mathbf{x}_2$ will never be *directly revealed preferred* to $\mathbf{x}_1$ in any situation (i.e., even when the budget or/and price vector is/are different from the above).

WARP emphasises the directly revealed case, and SARP extends this idea to the indirectly revealed case. Again, assume $\mathbf{x}_1$ and $\mathbf{x}_2$ are two distinct consumption bundles. SARP suggests that if $\mathbf{x}_1$ is *directly or indirectly revealed preferred* to $\mathbf{x}_2$, then $\mathbf{x}_2$ will never be *directly or indirectly revealed as preferred* to $\mathbf{x}_1$ under any circumstances.

This concept of revealed preference is central to the choice studies in many disciplines, such as economics, tourism, and marketing (Adamowicz et al., 1994; Adamowicz, Swait, Boxall, Louviere, & Williams, 1997; Azevedo et al., 2003;

Paulley et al., 2006). For instance, in a paper which aims to advance econometric models for measuring behaviour, Bierlaire, Bolduc, and McFadden (2008) apply a revealed preference approach to examine choices over energy sources. Revealed preference theory is also used to investigate financial decisions (Fridstrom & Elvik, 1997). For example, on the basis of revealed preference theory, Chirinko and Schaller (2004) collect secondary data to explore how the agency problem influences companies' choices of capital structure. Although revealed preference theory is a major area of interest within the field of choice behaviours, there is little accounting literature mentioning the possibility of applying a revealed preference method to financial reporting studies (Amershi, Demski, & Wolfson, 1982; Kane, 2004; Landsman, 2006; Schipper, 2010).

Whilst revealed preference model is very powerful, it still has limitations in practice. Since revealed preferences are obtained by inspecting market behaviours, the quality and the availability of data heavily depends on observation. The way in which researchers collect revealed preferences will also influence the results of the analysis. As noted by Bridges (2003, p. 216), "In decision making, revealed preferences (evidence of the actual choices made) are often complicated by constraints or selection mechanisms, which limit inference to other settings…." Similar to Bridges' opinion (2003), Adamowicz et al. (1994) also point out that the revealed preference model will not be applicable when the data of revealed preferences is not available. They indicate that this issue often happens when the present conditions are no longer maintained. Additionally, Kroes and Sheldon (1988, p. 13) note that "There are often strong correlations between explanatory variables of interest. … These make it difficult to estimate model parameters reflecting the proper trade-off ratios."

Furthermore, literature claims that this type of data is often short of variation resulting from the nature of data collection (T. K. Beatty & Crawford, 2011; Kroes & Sheldon, 1988). Therefore, the subsequent interpretation and analysis are also constrained. Because of these limitations of revealed preference theory, scholars establish alternative methods, such as the stated preference approach, which are needed to conduct empirical work (Adamowicz et al., 1994; Bridges, 2003; Kroes & Sheldon, 1988). The stated preference model is elaborated in the following section.

Stated Preferences

Stated preference theory is built on revealed preference theory. Opposed to revealed preference, which individuals reveal in real actions, stated preference is the preference that respondents state (not necessarily behave), and can be obtained by surveys (Adamowicz et al., 1994; Kroes & Sheldon, 1988; Schipper, 2010). Adamowicz et al. (1994) document that people's stated preferences and revealed preferences share the same characteristics. This result implies that a stated preference approach is able to capture an underlying preference, which is comparable to that measured by a revealed preference method.

Moreover, stated preference is collected by surveys, a very different method from that implemented in a revealed preference analysis. Hence, a stated preference approach could overcome the observational limitation in a revealed preference method (Adamowicz et al., 1994). As a consequence, the application of stated preference theory is wider than that of revealed preference theory (Bridges, 2003; Kroes & Sheldon, 1988). For example, as Bridges (2003, p. 216) writes, "Stated preferences allow us to model choices under many different scenarios, under

different constraints and across any population." He also points out that the stated preference model makes it possible to explore current and future decisions. In addition, the revealed preference study cannot be conducted if the preferences are not available in markets (i.e., non-market value or non-use value as described by Adamowicz et al., 1994). In this situation, the stated preference technique can be very helpful because it allows researchers to acquire individuals' preferences by surveys (Adamowicz et al., 1994; Azevedo et al., 2003).

Furthermore, by the design of research instrumentation, a stated preference approach could avoid the multicollinearity in the revealed preference model (Adamowicz et al., 1994; Kroes & Sheldon, 1988). As a result, stated preference theory can help to clarify the impact of a specific variable, and provide a more precise estimation. Stated preference analysis is a common and useful technique in studies of choice behaviour. Table 2.1 summarizes the similarities and differences of revealed preferences and stated preferences.

Table 2.1: Summary of Similarities and Differences of Reveal Preference and Stated Preference

	Revealed preference	**Stated preference**
similarities	Both are discrete choice models	
	Both are based on random utility theory	
	Both assume similar underlying preferences	
differences	Data collected on transactions	Data collected on attitudes
	Uses actual market evidence	Uses non-market choices
	Collinearity problem	Attenuates collinearity problem
	Ignores non-market value	Measures non-market value
	Observational limitation	Overcomes observational limitation by broad survey

A large body of literature has applied stated preference theory to analyse choices and preferences. These studies discuss topics in various areas, such as preferences for contraception methods (Delavande, 2008), attitudes towards public goods (Schlapfer, Schmitt, & Roschewitz, 2008), behavioural differences between smokers and non-smokers (Ida & Goto, 2009), and individuals' well-being (Benjamin, Heffetz, Kimball, & Szembrot, 2014). In Particular, studies of travel choices, a main discipline of choice behaviour, conduct a significant number of stated preference analyses (Fujii & Garling, 2003; Hensher, 1994; Paulley et al., 2006).

Although stated preference theory is widely used in choice studies, it has not been extensively adopted by accounting literature, like the situation of revealed preference theory. Previous literature has proposed that researchers could assess new accounting regulations with the help of stated preference theory (Schipper, 2010). In an empirical study, Gwilliam et al. (2005) mainly use revealed preference data to calculate costs and benefits of a new financial reporting regulation, with relatively little help from secondary stated preference data. In a series of empirical studies undertaken by Reid and Smith (2007a, 2007b), stated preference theory is applied. They conduct surveys to capture practitioners' stated preferences towards the FRSSE. Through analysing respondents' stated preferences, they prove that individuals' preferences affect the willingness to adopt the FRSSE. As far as we know, their work is the first attempt to extend stated preference approaches to accounting choices. Since companies' preferences towards accounting modes cannot be observed in markets, a stated preference approach is a potential research tool. Following Reid and Smith's studies (2007a, 2007b), this thesis will implement a stated preference approach to investigate companies' choices of financial reporting regimes and

techniques. Like their work, this research will conduct surveys to collect primary data. This thesis is expected to extend the binary choice problem, discussed by Reid and Smith (2007a, 2007b), to the multinomial choice problem, by considering various regimes and techniques. In this study, the stated preference data will be complemented by interview data. By doing this, this research will provide a more complete analysis of accounting choices.

Stated Preference Model

The above literature review shows the usefulness of stated preference theory. This section continues to present the basic model of stated preference. The model shown here follows the model used by Layton (2000) and Shen (2005). First of all, as with the situation of preference theory, it is assumed that individuals are rational in a stated preference approach (i.e., decisions are made to maximize utilities (Richter, 1966)). The stated preference model is grounded in random utility theory (Layton, 2000; Shen, 2005), and thus a respondent's utility of electing alternative i could be measured by $U_i = x'\beta_i + \varepsilon_i$, where x is the vector of explanatory variables, β is the coefficient vector, and ε is stochastic error term. Then, the probability that this individual chooses option i within a choice set C is p_i

$$= \Pr\left(x'\beta_i + \varepsilon_i > x'\beta_j + \varepsilon_j\right) \text{ , for all } j \in C \text{ and } j \neq i \qquad (2.7)$$

This model (Equation 2.7) can now be modified to one which estimates choices using stated preference data. The stated preference model may vary depending on the structure of choice problem and the form of data. For instance, Layton (2000) and Shen (2005) both present a multinomial logit model (MNL), which is a common model for examining discrete choices. The MNL model assumes that disturbance

terms satisfy type I extreme value distribution, and it measures the probability that a person picks alternative i by the following equation (Equation 2.8).

$$p_i = \Pr(y = i) = \frac{e^{x'\beta_i}}{\sum_{j \in C} e^{x'\beta_j}} \quad (2.8)$$

This thesis aims to apply stated preference theory to discover companies' behaviour in a two-stage choice model of accounting modes. As indicated in Section 2.3.2, the nested logit model (for nested choices) and the sequential logit model (for lexicographic choices) might be useful to estimate choice patterns in the two-stage choice model in subsequent studies. Therefore, on the basis of Equation 2.7 and stated preference theory, researchers could further measure firms' preferences for financial reporting regimes and techniques, through the nested and sequential logit models. While this thesis suggests the potential of using the sequential and nested logit models to study accounting choices, the limitation of data does not permit it. In this research, nonparametric tests are applied as they are more appropriate for the small sample (Alam, 2001; Hollander, Wolfe, & Chicken, 2014, Chapter 1).

Furthermore, when calculating the probability that a company elects financial reporting mode i, researchers need to include principal factors, which affect accounting choices, into the model as an independent variable. In order to discover these crucial determinants, this thesis also takes into account variables, which might affect accounting choices, as suggested by prior studies. The variables, such as firm size, firm age, industrial and services sectors, and organisational structures, are covered in the first section of our questionnaire.

2.4.2 Cost-Benefit Analysis in Financial Reporting Choices

Cost-Benefit analysis is a common research tool, and the basic concept is that individuals should evaluate costs and benefits when making decisions (Mishan & Quah, 2007). An observed knowledge gap in the field of accounting studies is a lack of factual evidence on costs and benefits related to financial reporting (Meeks & Meeks, 2002). As Gwilliam et al. (2005, p. 129) note, "although the regulators themselves acknowledge the need for cost-benefit appraisal of their work, empirical analysis of the costs and benefits of changes in accounting regulations is almost non-existent." They further explain that this situation might result from the difficulty of calculating accounting associated costs and benefits in practice. In a discussion of conducting cost-benefit analysis in accounting areas, Schipper (2010) also presents that cost-benefit analysis plays an important role in decision making, and indicates that the current cost and benefit methods used in accounting research requires improvement. Rising to this challenge and following Schipper's suggestion (2010), this thesis aims to use the idea of costs and benefits to analyse firms' accounting choices. Companies' preferences towards financial reporting modes will be collected on the basis of stated preference theory (see Section 2.4.1).

Several attempts have been made to document actual costs and benefits of financial reporting regimes and techniques (Amel-Zadeh et al., 2013; Gwilliam et al., 2005; Meeks & Meeks, 2002; Meeks & Swann, 2009). For instance, Gwilliam et al. (2005) explore whether a new financial reporting regulation is beneficial, from both the private aspect and the social aspect. They use secondary data to assess costs and benefits related to this accounting change, such as firms' compliance costs, and investors' benefits of reduced information asymmetry resulting from the imposition

of the new rules. They also provide the estimated amount of relevant costs and benefits. Furthermore, Meeks and Swann (2009) review the principal costs and benefits associated with financial reporting standards, in a more general way. They hope to show whether the accounting convergence is appropriate in terms of costs and benefits.

A number of accounting studies discuss costs and benefits connected with accounting modes from companies' points of view. For instance, after reviewing relevant literature, Soderstrom and Sun (2007, p. 684) comment that "In summary, examination of events surrounding IAS adoption indicates that firms are making rational decisions on the choice of accounting standards by weighing costs and benefits." Additionally, Jamal et al. (2010) explore a potential financial reporting regime in Canada. Using results from prior studies, they point out that public firms and private firms have different levels of adoption costs and benefits. Bruggemann et al. (2013) consider the impact of applying IFRS on firms, by integrating and analysing existing literature. They show the inconsistency between evidence on the quality of financial reports and that on firms' performances in stock markets.

Amongst these studies, many provide evidence on whether a certain financial reporting regime or technique is beneficial for companies, by examining market data. For example, Amel-Zadeh et al. (2013) investigate firms' choices over disclosing earnings forecasts in the middle of merger and acquisition deals. They also try to show whether companies experience certain disclosure benefits and costs, such as the benefit of helping to negotiate a deal or the cost of revealing trade secrets, by testing transaction data. One of the most significant current discussions in these studies is the adoption of IFRS (Bruggemann et al., 2013). For instance, Daske (2006) assesses

the adoption benefits of IFRS, by testing German companies' data collected from large databases. As suggested by previous literature, one of the potential advantages for firms to implement IFRS is the lower cost of capital. Nonetheless, his results show that companies rarely experience this benefit after applying IFRS. Furthermore, Bova and Pereira (2012) investigate key factors, which affect Kenyan firms' attitudes towards compulsory implementation of IFRS. They briefly mention companies' adoption costs and benefits of IFRS, and state that "We also find that firms do benefit from IFRS compliance, as firms with higher levels of compliance observe larger share turnover" (Bova and Pereira, 2012. p. 86).

In addition, few writers conduct surveys to measure firms' costs and benefits towards financial reporting regimes. An early investigation into firms' opinions on the introduction of IFRS was undertaken by Jermakowicz and Gornik-Tomaszewski (2006). They asked respondents whether they anticipate a series of costs and benefits from the implementation of IFRS. For each question about a specific cost or benefit, the respondents could state that they "strongly agree, agree, undecided, disagree, or strongly disagree" with the description (Jermakowicz & Gornik-Tomaszewski, 2006, p. 187). The results show that companies generally perceive high adoption costs of the IFRS, and most of them would not comply with IFRS if it were not compulsory. Based on the survey and interview data, they further elaborate that IFRS is complicated and firms might spend more time on preparing financial reports. They also document that sampled firms seem not to experience the benefit of having lower cost of capital after adopting IFRS. Furthermore, Reid and Smith (2007a, 2007b) examine practitioners' decisions on the implementation of the FRSSE. They calibrate individuals' adoption costs and benefits using survey data, which is collected on the

basis of stated preference theory. The costs and benefits are measured using a five-point Likert scale. The results present that people who use the FRSSE tend to have larger adoption benefits than costs. The authors also document that respondents who apply the FRSSE perceive higher net and ratio adoption benefits than others.

Until now, there has been little empirical analysis of how exactly firms weigh costs and benefits of adopting a certain accounting mode, and how their perceived costs and benefits affect their accounting choices (Bruggemann et al., 2013). Nevertheless, literature has indicated the importance of investigating companies' financial reporting decisions, and the associated costs and benefits (Bruggemann et al., 2013; Fields et al., 2001). In a meta-analysis about the impact of compulsory IFRS adoption, Bruggemann et al. (2013) urge more research on exploring the costs and benefits of implementing IFRS and indicate the need for establishing a better research instrument. As they state,"…progress is likely to come from disclosure, accounting choice and compliance studies, using hand-collected data, as well as from studying smaller firms" (Bruggemann et al., 2013, p. 3). They also write: "Interesting insights will likely stem from exploiting expert accounting knowledge to identify useful settings and from using actual contract data or, where absent, appropriate proxies" (Bruggemann et al., 2013, p. 3). Daske (2006) also advises subsequent studies on when companies could experience the adoption benefits of IFRS, and how firm-specific attributes and national regulatory environments affect the benefit of adoption. To address these research gaps, this study will investigate companies' choices over financial reporting regimes and techniques, and estimate firms' costs and benefits of adopting these accounting modes. Specifically, this research focuses on managers' perceived accounting costs and benefits. Since the implementation of

IFRS is a central issue, it will be explored in this thesis (Ball, 2006; Barth et al., 2012; Bruggemann et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). The analysis of this thesis regarding the costs and benefits of using IFRS aims to fill a knowledge gap in the accounting literature (Singleton-Green, 2015).

Scholars have pointed out that it is hard to measure costs and benefits associated with financial reporting, which are very complicated and often subjective (Gwilliam et al., 2005; Meeks & Swann, 2009; Schipper, 2010). Building on Reid and Smith's work on the FRSSE (2007a, 2007b), this thesis calibrates companies' costs and benefits using a five-point Likert scale, and extends this method to study more accounting choices. This study will present a perceived level of costs and benefits, rather than a specific value which are seen in papers of Gwilliam et al. (2005) and Meeks and Swann (2009). Furthermore, adoption costs and benefits presented in this thesis directly come from respondents' subjective estimation (Kahneman and Tversky, 1984; Mises, 1998; Raghubir, 2006), rather than being documented by market data (Amel-Zadeh et al., 2013; Gwilliam et al., 2005). By doing so, it is hoped to overcome the measurement problem mentioned above, and to examine the potential of this new research tool (i.e., using a five-point Likert scale to measure companies' preferences towards accounting forms, based on stated preference theory). It should be noted that although the accounting costs and benefits discussed in this thesis are based on management's perceptions, financial reporting standards also influence other interest groups whose perceived costs and benefits may differ from managers' (Gwilliam et al., 2005; Hodder and Hopkins, 2014, Schipper, 2010). For example, adopting an accounting mode may be beneficial for managers but unbeneficial for owners, and managers' compensation often play an important role in their accounting

choices (Fields et al., 2001; Gul, 2001). The literature shows that accounting costs and benefits can shift between the preparers and users of financial reports (Fields et al., 2001; Schipper, 2010). Accounting regulators, who focus more on the whole economy, also have different considerations from companies, which prepare financial reports (Gwilliam et al., 2005; Schipper, 2010). Therefore, it should be bear in mind that this research only explores part of accounting costs and benefits, and it is from managers' perspectives. Moreover, these costs and benefits are subjectively estimated by managers of sampled firms, and will be different across individuals and over time (Mises, 1998). Hence, it is also difficult to link the level of costs and benefits to a specific value.

This approach is, to some extent, similar to that used in Jermakowicz and Gornik-Tomaszewski's paper (2006), where respondents are required to state whether they anticipate a certain cost or benefit, rather than directly rank the level of costs or benefits. Additionally, different from Jermakowicz and Gornik-Tomaszewski's work (2006) which discovers the expected costs and benefits of adopting IFRS, our research explores both perceived and expected costs and benefits of applying various accounting modes. The data collected in this study regarding firms' perceived costs and benefits of using IFRS can complement their results of anticipated costs and benefits, and will contribute to the disagreement over the IFRS in accounting studies (Bruggemann et al., 2013). Furthermore, as suggested by prior research, our sample consists of firms from different industries and with various sizes, and should provide more complete information of adoption costs and benefits (Bruggemann et al., 2013; Daske, 2006; Fields et al., 2001; Jermakowicz & Gornik-Tomaszewski, 2006).

Following Reid and Smith's research (2007a, 2007b), this study applies a stated preference approach to capture firms' costs and benefits of using an accounting form, and conducts 15 face-to-face interviews. In addition to the results of statistical tests, this thesis provides detailed analysis of firms' accounting choices based on interview data, which are seldom seen in prior studies. As discussed earlier in this chapter, considerable numbers of accounting studies focus on firm performance subsequent to the adoption of regimes. However, the results in stock markets might not completely reflect companies' rationale behind accounting choices (Bruggemann et al., 2013; Gwilliam et al., 2005; Schipper, 2010). This thesis, which directly requested companies' perceived costs and benefits, and obtained internal knowledge via interview, should produce useful information. Watts and Zimmerman (1990) indicate that examining empirical data will make a major contribution to the knowledge of choices over financial reporting. This research, which investigates firms' perceived costs and benefits in accounting practices, should advance relevant literature. Specifically, this thesis emphasises UK and Taiwan accounting frameworks, which will be elaborated upon in the next chapter.

2.5 Summary and Discussion

This chapter reviews the literature, which addresses accounting choices and identifies two principal forms of choices that companies have. The first type is the regime choice. A good illustration of this is that UK private firms are allowed to adopt IFRS or UK GAAP, which are two different systems of accounting regulations (PwC, 2014a). The second type is the technique choice that refers to the choices which firms have within a regime. For instance, LIFO or FIFO are two techniques which

firms might adopt to treat inventories (Gul, 2001).

To the best of our knowledge, none of existing research probes the relationship between regime choices and technique choices. As indicated by previous literature, examining multiple choices at the same time is crucial to enhance our knowledge of the decision-making in financial reporting (Fields et al., 2001; Missonier-Piera, 2004). Hence, this thesis aims to establish a two-stage choice model of financial reporting regimes and techniques (Kelly et al., 2007). This chapter briefly shows the structure of this two-stage choice model (see Figure 2.4). It further introduces two preference orderings, lexicographic and colexicographic orderings, which help to describe how choices are made in this two-stage choice model (Castano & Castano, 2012; Colman & Stirk, 1999). This chapter also presents three possible choice patterns, which are the lexicographic (sequential) choice, colexicographic (sequential) choice, and nested choice (Bellemare & Barrett, 2006). This chapter illustrates that the sequential logit model and nested logit model could be applied to estimate lexicographic choice and nested choice, respectively. These advanced econometric techniques might be used in future studies of accounting choices when data is available. Following these concepts, Chapter 3 will clearly demonstrate the model development using UK and Taiwan accounting frameworks, with a detailed elaboration of choice patterns, preference orderings, and econometric estimation.

This chapter also indicates the potential of using a stated preference approach to capture firms' preferences towards financial reporting modes (Schipper, 2010; Smith & Reid, 2008). Many scholars also observe a knowledge gap in this area, the shortage of empirical evidence on costs and benefits associated with accounting choices (Gwilliam et al., 2005; Meeks & Meeks, 2002). They point out the limitation

of current research instruments and the measurement difficulty, and urge more work to be done through analysis of primary data, obtaining internal knowledge, and examining firm-specific or environmental attributes (Bruggemann et al., 2013; Daske, 2006; Gwilliam et al., 2005; Schipper, 2010). Rising to this challenge, this thesis will explore companies' preferences towards financial reporting modes in practices using survey and interview data, on the basis of stated preference theory. Building on Reid and Smith's research (2007a, 2007b) on financial reporting choices of small entities, this study will calibrate and display firms' perceived costs and benefits of adopting accounting regimes and techniques using a five-point Likert scale. It is important to bear in mind that although this research emphasises managers' perceived accounting costs and benefits, financial reporting standards do have a wider impact (e.g., the impact on other shareholders and capital markets) (Gwilliam et al., 2005; Schipper, 2010). These subjective costs and benefits may also change across individuals and over time (Mises, 1998). This work should make an important contribution to this field, by advancing research tools, and offering crucial insights into accounting choices. The methodology of this thesis will be further explained in Chapter 4. The empirical results will be discussed in Chapters 5 to 9.

Chapter 3 A Two-Stage Choice Model of Financial Reporting Regimes and Techniques: Accounting Practices and Model Development

3.1 Introduction

The previous chapter points out that a major goal of this thesis is to establish a two-stage choice model of accounting regimes and techniques. The basic structure of this model (see Figure 2.4 for the basic model) has been presented in the last chapter. This chapter further develops this model, and illustrates how this model can be applied to accounting practices. This thesis focuses on the financial reporting framework in the UK and Taiwan, which will be the basis for the design of the instrumentation (see Chapter 4 for an account of the instrumentation). This chapter will elaborate on the UK and Taiwanese accounting practices, and the regime and technique choices which UK and Taiwanese companies have. As observed in the literature review in Chapter 2, IFRS is a crucial issue in recent accounting research (Ball, 2006; Barth et al., 2014; Bova & Pereira, 2012). Hence, the choices around IFRS within the UK and Taiwan schemes will be examined throughout this study. In addition, scholars show that the requirement of IFRS adoption varies across countries (Kvaal & Nobes, 2010; Nobes, 2006; Singleton-Green, 2015). Therefore, the comparative analysis of UK and Taiwan, where IFRS is implemented, should generate useful insights, and contribute to the debate over IFRS adoption (Barth et al., 2012; Singleton-Green, 2015).

This chapter is structured as follows: Section 3.2 presents the UK accounting practice,

including regimes, techniques and latest policy development. Section 3.3 reviews the financial reporting practice in Taiwan. Section 3.2 and Section 3.3 also show companies' accounting choices using the form of the two-stage choice model. The difference in the accounting regulations between UK and Taiwan is addressed in Section 3.4. Section 3.5 relates the two-stage choice model with potential choice patterns, preference orderings, and econometric techniques. It also illustrates the utility expressions of this model, and this will be a solid foundation for the research design explained in Chapter 4. Section 3.6 concludes this chapter.

3.2 UK Accounting Practice

This thesis aims to explore companies' accounting choices, and UK accounting practice is one of our major focuses. The reasons why the UK is chosen are presented as follows: Firstly, the UK is one of the countries that first introduced IFRS and UK firms should now be more familiar with IFRS, compared to companies in other countries (Jeanjean and Stolowy, 2008). Therefore, interviewing UK companies is expected to generate crucial knowledge about IFRS. Secondly, because of its highly developed financial markets, UK often attracts scholars' attention (Brochet, Jagolinzer, & Riedl, 2013). Furthermore, as Horton and Serafeim (2010, p. 727) state, "since UK GAAP is considered to be one of the highest quality sets of national standards, it is important to ascertain what benefits exist for UK firms in implementing the IFRS accounting principles." In a study which set out to elaborate firms' accounting decisions around IFRS, Kvaal and Nobes (2012, p. 348) note that "We therefore suggest that UK companies were the most aware of the policy choices available within IFRS, and made settled choices on transition." They (2012, p.344)

also mention that the UK is one of the countries which "had the largest stock markets of any IFRS-using country at the time." The above shows the uniqueness of UK firms and UK accounting regulations. Hence, the examination of UK companies' choices in financial reporting should lead to interesting and useful results, and help to enhance our understanding of firms' accounting choices.

The following sections will illustrate the financial reporting practice in the UK. Section 3.2.1 will discuss the UK adoption framework of financial reporting regimes, and the latest policy changes from 2015. Section 3.2.2 will consider UK companies' technique choices, under the available regimes.

3.2.1 UK Companies' Choices over Financial Reporting Regimes

Current Adoption Framework of Financial Reporting Regimes

Until the end of 2014, there were three financial reporting regimes available in the UK (Fearnley & Hines, 2007). UK firms with various sizes and different types of ownership have different choices over regimes (ASB, 2012; ICAEW, 2012; PwC, 2013c). The following paragraphs review and summarise UK companies' regime choices. Firstly, IFRS is a major financial reporting regime in the UK. In 2001, the International Accounting Standards Board (IASB) set up IFRS. Since 2005, UK firms, which are listed in a "regulated" market, are required to adopt IFRS for their consolidated accounts (Christensen, Lee, & Walker, 2009; IFRS Foundation and the IASB, 2013). For UK companies which are traded in AIM (London Stock Exchange's international market for smaller growing companies), they also have to mandatorily implement IFRS for consolidated accounts from 2007, and are allowed to adopt it earlier (IFRS Foundation and the IASB, 2013). These firms, which must

comply with IFRS, can choose whether to use IFRS for their individual accounts. Other firms can also decide whether or not to voluntarily adopt IFRS for their consolidated accounts and/or individual accounts. UK GAAP is the common alternative for companies that do not use IFRS (Fearnley & Hines, 2007). In 2008, considering the differences in financial reporting between large firms and small firms, the ASB introduced the FRSSE (FRC, 2014). Small firms, which meet certain requirements (e.g., not a public company), are permitted to report under the FRSSE.

Therefore, UK companies' regime choices depend on the firms' size and the ownership types. The regulation for consolidated accounts and individual accounts are also different. Their regime choices can be summarised as follows, and are presented in Table 3.1.

(1) Publicly listed UK firms should adopt EU-adopted IFRS for their consolidated accounts (see row one in Table 3.1). For their individual accounts, including parent's and subsidiaries' individual accounts, they can choose to implement IFRS or UK GAAP (see row two in Table 3.1).

(2) Private large and medium sized UK firms can use EU-adopted IFRS or UK GAAP (see row three in Table 3.1).

(3) UK private small firms, which meet the requirements of the FRSSE[2], can report under EU-adopted IFRS, UK GAAP or FRSSE (see row four in Table 3.1).

[2] According to the 2008 version of FRSSE, FRSSE can be used by "(a) small companies or small groups as defined in companies legislation preparing Companies Act individual or group accounts; or (b) entities that would also qualify under (a) if they had been incorporated under companies legislation, with the exception of building societies" (ASB, 2008, p. 11).

Table 3.1: Matrix of UK Firms' Regime Choices (Until the End of 2014)

Firms \ Regimes			Regime Choices		
			IFRS	UK GAAP	FRSSE
Public (listed) firms	All size	Consolidated Accounts	✓	×	×
		Individual Accounts	✓	✓	×
Private firms	Large and Medium		✓	✓	×
	Small		✓	✓	✓

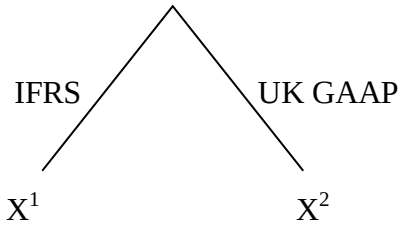
Note:
(1) ✓ denotes possible choice. × denotes impossible choice.

UK companies' regime choices can also be represented by decision trees as seen in Chapter 2. The following trees show three different levels of freedoms which UK firms might have in selecting regimes. Firstly, for UK listed companies, they can only implement IFRS for their consolidated accounts. Therefore, they do not have regime choices. This thesis also names it as a "tied choice". Figure 3.1 exhibits the decision tree of the tied choice.

Figure 3.1: A Tied Choice of Financial Reporting Regimes (Consolidated Accounts of UK Publicly Listed Firms)

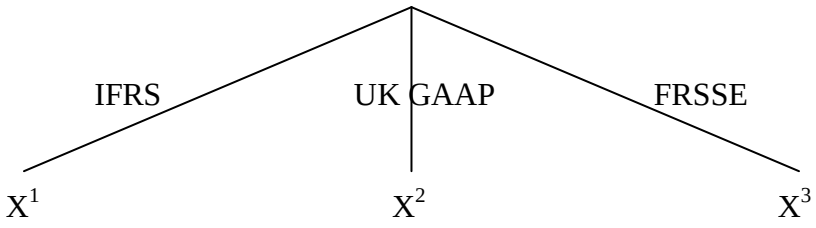
Secondly, IFRS and UK GAAP are applicable for the individual accounts of UK listed firms. Large and medium private UK companies can also choose to report under IFRS or UK GAAP. In this situation, firms have more freedom in determining regimes, compared to the example in Figure 3.1. However, because of firm size and ownership type, they cannot implement the FRSSE. This case can be regarded as a restricted free choice, and can be presented using Figure 3.2.

Figure 3.2: A Restricted Free Choice of Financial Reporting Regimes (Individual Accounts of UK Publicly Listed Firms, and All Accounts of UK Large and Medium Private Firms)



Thirdly, UK small private firms, which meet the requirements of the FRSSE, can freely adopt IFRS, UK GAAP, or FRSSE as their financial reporting regimes. These companies have free regime choices. Figure 3.3 shows their decision tree with full choices.

Figure 3.3: A (Full) Free Choice of Financial Reporting Regimes (All Accounts of UK Small Private Firms)



Latest Policy Development in Regimes

The ASB planned to replace the current UK GAAP with a new UK GAAP from 1 January 2015. Companies are allowed to adopt the New UK GAAP early. The New UK GAAP mainly consists of four Financial Reporting Standards (FRSs), which are FRS 100, FRS 101, FRS 102 and FRS 103 (ICAEW, 2015; PwC, 2013c). FRS 100 (Application of Financial Reporting Requirements) explains the adoption framework in general. FRS 101 (Reduced Disclosure Framework) illustrates the reduced disclosure framework, which is consistent with IFRS, and can be used by qualifying companies for their individual accounts (ICAEW, 2015; Moore Stephens, 2014; PwC, 2013c; PwC, 2014b). It should be noted that FRS 101 is not applicable to consolidated accounts. FRS 102 (The Financial Reporting Standard Applicable in the UK and Republic of Ireland) is close to the current UK GAAP, but with some accommodation for the concepts of IFRS for SMEs (PwC, 2013c). FRS 103 (Insurance Contracts) sets out the regulations of how to treat insurance contracts in financial reports. By introducing the new UK GAAP, the ASB aimed to enhance the cohesion of accounting regulations, to increase the consistency between financial reporting standards and business practices, and to connect local GAAP with international financial reporting regimes (ASB, 2012). The ASB also claimed that adoption of this new UK GAAP should be cost-effective (ASB, 2012). In order to examine ASB's argument about the New UK GAAP, Section 9.2.1 will explore UK companies' opinion on the New UK GAAP, and discuss whether firms regard implementing the New UK GAAP as beneficial by inspecting their stated adoption costs and benefits.

Therefore, from 2015, the adoption structure for financial reporting regimes will be

changed to the following. This framework is exhibited in Table 3.2.

(1) UK publicly listed firms should comply with EU-adopted IFRS for their consolidated accounts (see row one in Table 3.2). For their individual accounts, they can choose to adopt IFRS, FRS 101, or FRS 102 (see row two in Table 3.2) (ICAEW, 2015; PwC, 2013c).

(2) UK private large and medium firms can implement EU-adopted IFRS or with FRS 102 for their consolidated accounts (see row three in Table 3.2). For their individual accounts, they will have an additional option of FRS 101 (see row four in Table 3.2).

(3) UK private small firms, which meet the requirements of the FRSSE, can use EU-adopted IFRS, FRS 102, or FRSSE for consolidated accounts (see row five in Table 3.2). For their individual accounts, they will have an additional option of FRS 101 (see row six in Table 3.2).

A decision tree is an alternative method of Table 3.2 to represent UK companies' expected regime choices. Decision trees below show five forms of UK firms' anticipated regime choices, and the branches of the trees present the possible regime choices. We start from the most constrained choice to the free choice. Firstly, UK listed companies must report under IFRS, and hence they have tied regime choices. This case can be expressed as Figure 3.4.

Table 3.2: Matrix of UK Firms' Regime Choices (From 2015)

Firms \ Regimes			Regime Choices			
			IFRS	New UK GAAP		FRSSE
				FRS 102	FRS 101	
Public (listed) firms	All size	Consolidated Accounts	✓	×	×	×
		Individual Accounts	✓	✓	✓	×
Private firms	Large and Medium	Consolidated Accounts	✓	✓	×	×
		Individual Accounts	✓	✓	✓	×
	Small	Consolidated Accounts	✓	✓	×	✓
		Individual Accounts	✓	✓	✓	✓

Note:

(1) ✓ denotes possible choice. × denotes impossible choice.

Figure 3.4: A Tied Choice of Financial Reporting Regimes (Consolidated Accounts of UK Publicly Listed Firms, from 2015)

Furthermore, three types of restricted (but partially) free choices are presented as follows: Figure 3.5 shows that UK large and medium private companies can report their consolidated accounts using IFRS or FRS 102. Figure 3.6 exhibits that UK private firms with large or medium size, and UK listed companies can implement IFRS, FRS 102, or FRS 101 for their individual accounts. Figure 3.7 illustrates that

UK small private firms can adopt IFRS, FRS 102, or FRSSE for their consolidated accounts. These three choices are free, but are restricted to some extent.

Figure 3.5: A Restricted Free Choice of Financial Reporting Regimes (Consolidated Accounts of UK Large and Medium Private Firms, from 2015)

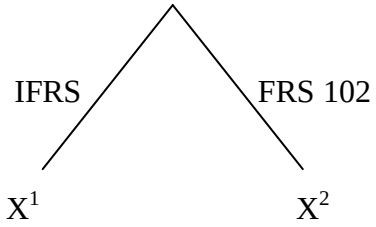


Figure 3.6: A Restricted Free Choice of Financial Reporting Regimes (Individual Accounts of UK Publicly Listed Firms, and Those of UK Large and Medium Private Firms, from 2015)

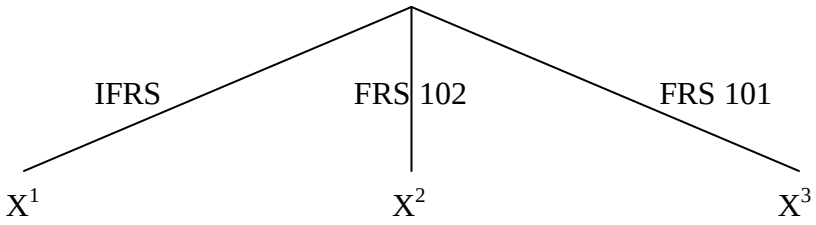
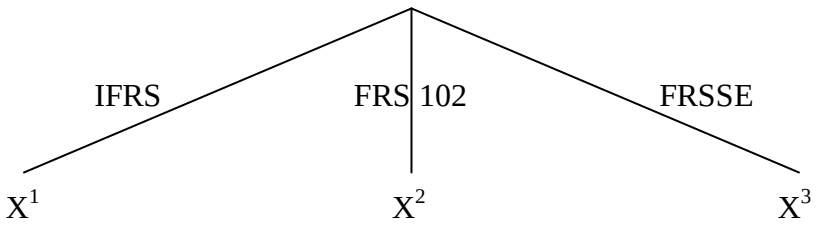
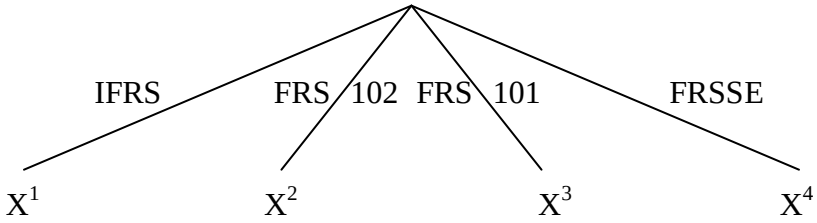


Figure 3.7: A Restricted Free Choice of Financial Reporting Regimes (Consolidated Accounts of UK Small Private Firms, from 2015)



Finally, UK small private firms have full regime choices for their individual accounts, and they can freely adopt IFRS, FRS 102, FRS 101, or FRSSE. This free choice is described by Figure 3.8.

Figure 3.8: A (Full) Free Choice of Financial Reporting Regimes (Individual Accounts of UK Small Private Firms, from 2015)



Discussion of UK Accounting Regimes

As indicated in Chapter 2, IFRS is a central issue of accounting studies, and many efforts have been made by scholars to document the advantage and disadvantage of adopting IFRS (Ball, 2006; Daske et al., 2008). The evidence on IFRS implementation is often mixed, and the debate about IFRS is still ongoing (Bruggemann et al., 2013; Singleton-Green, 2015). Some researchers show the positive impact of applying IFRS in a UK setting (Brochet et al., 2013; Horton & Serafeim, 2010). For example, Brochet et al. (2013, p. 1374) use "the abnormal returns to insider purchases" as a proxy of comparability of financial reports. Their results show that the adoption of IFRS leads to better comparability of UK firms' financial reports. Applying another approach to estimate the comparability, Cairns, Massoudi, Taplin, and Tarca (2011) reach a similar conclusion. As they (2011, p. 17) state, "these results suggest that mandatory fair value measurement [under IFRS] improves comparability within and between the UK and Australia for financial instruments and share-based payment." In addition, Horton and Serafeim (2010) document that financial reports prepared under IFRS enhance the communication between UK companies and the markets regarding bad news. Moreover, Schleicher, Tahoun, and Walker (2010) investigate the impact of compulsory IFRS adoption on

European companies, and the majority of their sampled firms are UK companies. They show that implementation of IFRS might result in a more efficient investment market, and this benefit is more obvious for small firms. Furthermore, Armstrong et al. (2010) explore how market players consider the introduction of IFRS. They observe that European companies, of which around 30% are UK firms, experience higher market valuation, and suggest that using IFRS enhances the quality of financial reports.

Nevertheless, other scholars find negative or neutral effect of adopting IFRS, through looking at the UK data. Fearnley and Hines (2007) discuss the financial reporting regimes in the UK, and indicate that it is complicated to adopt IFRS. They also address that the use of the fair value approach required by IFRS is one main reason for the complexity. Additionally, Fox, Hannah, Helliar, and Veneziani (2013) interview UK large firms, and claim that the adoption cost of IFRS is very high. In an investigation into the influence of IFRS adoption on European Companies, including UK firms, Jermakowicz and Gornik-Tomaszewski (2006, p. 173) also share the similar opinion that "the process of implementing IFRS is costly, complex and burdensome." Furthermore, Jeanjean and Stolowy (2008) find that the situation of earnings management in financial reporting does not have a significant change after UK companies implement IFRS. They (2008, p. 481) argue that "these findings suggest that the switch to IFRS was not a major vector of improvement in terms of earnings quality."

Table 3.3 summarises the above literature regarding the impact of using IFRS. It can be noted that the implementation of IFRS has both positive and negative impacts. Fox et al. (2013) argue that in general respondents believe that the adoption costs of

IFRS outweigh the adoption benefits. As with the paper of Fox et al. (2013), this current research interviews UK companies to examine firms' opinions on IFRS (see Chapter 6, Chapter 7 and Chapter 9). In contrast to their paper, which does not calibrate adoption costs and benefits of IFRS, this thesis uses a stated preference approach to capture UK and Taiwanese companies' perceived costs and benefits of applying IFRS (Gwilliam et al., 2005; Smith & Reid, 2008). The statistical results of whether UK firms receive additional benefits from adopting IFRS will be presented in Chapter 5. Since the literature listed in Table 3.3 focuses on a specific impact of implementing IFRS, our research, which measures companies' overall adoption costs and benefits, will contribute to the relevant literature.

Table 3.3: Consequences of Adopting IFRS (UK Evidence)

Positive Impact
Armstrong et al. (2010): Using IFRS leads to higher market valuation, and financial reports of better quality.
Horton and Serafeim (2010): Financial reports prepared under IFRS are better in conveying bad news, compared to previous reports.
Schleicher et al. (2010): IFRS adoption might results in a more efficient investment market.
Brochet et al. (2013); Cairns et al. (2011): Implementing IFRS improves the comparability of financial reports.
Neutral or Negative Impact
Fearnley and Hines (2007): It is complicated to adopt IFRS because of the nature of fair value estimation.
Jeanjean and Stolowy (2008): Do not support the argument that IFRS adoption helps to enhance the quality of financial reports (by examining earnings disclosures).
Jermakowicz and Gornik-Tomaszewski (2006); Fox et al. (2013): It is costly to adopt IFRS.

Furthermore, Fox et al. (2013) focus on large companies listed on the London Stock

Exchange, whereas our sample consists of public and private firms, as well as large, medium, small and micro entities. In terms of employees, in 2013, 99.6% of UK firms were SMEs or micro firms. Large firms with more than 250 employees only account for 0.4% of total UK companies (Office for National Statistics, 2014d). Hence, the results of our work should provide more useful insights into the IFRS adoption in the UK, contributing to studies in this area.

Although the adoption of IFRS is mandatory for listed UK firms, it is merely for consolidated accounts. UK listed companies can still choose UK GAAP or IFRS as the regime for individual accounts. However, their regime choices for individual accounts are often ignored by literature. Moreover, there has been little analysis of how the compulsory adoption for consolidated accounts influences UK listed firms' regime choice for individual accounts. Jermakowicz and Gornik-Tomaszewski (2006, p. 190) have made an attempt to address this issue, and explain that "Many EU-listed companies, particularly in Continental Europe, will continue to prepare their individual accounts according to national accounting standards, since those accounts, based on national accounting standards, are used for purpose of taxation, profit distribution, and financial services supervision." Nonetheless, the relationship between the regime for individual accounts and that for consolidated accounts is still not clear. To provide more information regarding this question, Chapter 6 elaborates how UK companies determine their regimes for individual accounts, and whether this decision is affected by the mandatory IFRS adoption for consolidated accounts. This is done through the use of surveys and interview data.

According to the Office for National Statistics (2014d), there were 2.17 million UK firms in 2013. In 2014, there were 658 UK companies listed on AIM, and 2446

companies traded in London Stock Exchange (London Stock Exchange, 2015). Therefore, the majority of UK firms are not listed companies. As shown in Table 3.1 and Table 3.2, these unlisted firms have a wider range of regime choices than listed companies. In addition to IFRS, they at least have an additional option of regime (i.e., UK GAAP). Whilst UK unlisted companies play an important role in the UK economy, their choices over financial reporting regimes are not well investigated by existing studies, which tend to emphasise mandatory IFRS adoption and do not further examine UK GAAP or FRSSE. Few studies which focus on the UK accounting practices for unlisted firms or SMEs (i.e., the majority of UK companies) are presented as follows: Fearnley and Hines (2007) consider the overall influence of the IFRS enforcement on the UK financial reporting environment, with the discussion of UK GAAP and FRSSE. They urge standard-setters to pay serious attention to what financial reporting regimes will really suit unlisted companies. They also indicate that more work should be done to understand small and medium firms' opinions on accounting regulations. Reid and Smith (2007a, 2007b) inspect the adoption situation of the FRSSE. They show that this accounting decision is related to individuals' costs and benefits of implementing the FRSSE.

It is important to consider other available regime choices (e.g., UK GAAP and FRSSE) when discussing the adoption of IFRS **(**Fearnley & Hines, 2007**)**. It is also crucial to consider the connection between the regime for individual accounts and that for consolidated accounts (Jermakowicz & Gornik-Tomaszewski, 2006). Hence, this thesis aims to consider companies' entire choice set of regimes when discussing their regime choices. Section 9.2.2 will summarise UK companies' opinions on IFRS, UK GAAP, and FRSSE. It includes the major differences between using IFRS and

UK GAAP indicated by UK firms, and how the regime options affect UK firms' incentives of applying the FRSSE. By doing so, this thesis can present a more complete picture about regime choices and enhance our understanding of accounting decisions. As far as we know, until now no academic research has reported companies' regime choices following the introduction of the New UK GAAP, or has examined this policy changes. Hence, our results (see Section 9.2.1) will also provide timely and early evidence on the impact of the New UK GAAP.

3.2.2 UK Companies' Choices over Financial Reporting Techniques

The previous section reviews regime choices which UK companies have. Since techniques permitted often vary across regimes, it is necessary to explore regimes and techniques together in order to fully understand firms' accounting decisions. Therefore, this section discusses techniques which UK firms can use, given the adoption framework of regimes.

Our study considers techniques, which draw extensive attention in the accounting literature, and emphasises technique choices in the following three aspects: the valuation of intangibles, recognition of development costs, and valuation of investments (Barth, 1994; Canibano et al., 2000; Cazavan-Jeny et al., 2011; Fields et al., 2001). Intangibles play an important role in modern economies where knowledge becomes extremely crucial (Guthrie et al., 2001). Intangibles are tightly associated with human capital, and can help to create substantial value. Therefore, intangibles are known to be the growth engine of companies and economies, and have major policy influence (Bianchi & Labory, 2004). In addition, R&D is part of the innovation process, and is a principal method to generate intangibles (Tsoligkas &

Tsalavoutas, 2011). R&D expenditure is often regarded as an indicator of companies' future performances (Chauvin & Hirschey, 1993; Wang & Chang, 2005). Our research, which focuses on treatments for intangibles and development costs, should be of benefit to the competitive and evolving global markets (A. Hausman & Johnston, 2014).

Although UK publicly listed companies must adopt IFRS for their consolidated accounts from 2005, UK firms have a wide range of choices over techniques, such as those for valuing intangibles and investments and treating development costs (Kvaal & Nobes, 2010; PwC, 2013a). First of all, regarding the treatments of intangibles, IFRS, current UK GAAP, and New UK GAAP require the initial recognition of intangibles to be done at cost (Ernst & Young, 2011a). Nonetheless, IFRS has a specific definition of cost, which involves the concept of fair value (IFRS Foundation and the IASB, 2012). The New UK GAAP also contains the idea of fair value (ASB, 2012). Studies have summarized three approaches mentioned by IFRS to measure fair value: the cost approach, income approach, and market approach (Ernst & Young, 2011b; PwC, 2013b). In addition, for the subsequent valuation of intangibles, IFRS allows companies to use the cost or fair value approach (IFRS Foundation and the IASB, 2012). As with IFRS, New UK GAAP permits the use of the cost approach and the fair value approach for valuing intangibles. Again, the cost approach, income approach, and market approach are optional to measure the fair value (Ernst & Young, 2011b; PwC, 2013b). Other regimes have different regulations about the subsequent valuation of intangibles. Under current UK GAAP, the cost approach is the technique which firms often adopt, and a market based approach (not the concept of fair value in IFRS) is only applicable when the companies are certain about the market value

(Ernst & Young, 2011a; PwC, 2013a). Under the FRSSE (both 2008 and 2015 versions), it is not possible to revalue intangibles (ASB, 2008, 2013).

Furthermore, the techniques for amortising intangibles are very different across regimes (PwC, 2013a). Under the current UK GAAP, intangibles are often amortised using a default period of 20 years (PwC, 2013a). The default amortisation period under the new UK GAAP is five-year, and is shorter than that under the current UK GAAP (KPMG, 2013). The regulation of the FRSSE basically follows UK GAAP, both current and new. The 2008 version of FRSSE requires firms to amortise intangibles applying a period of less than 20 years (ASB, 2008), and the 2015 version changes the default period to 5 years (ASB, 2013). However, companies have more discretion under IFRS and can choose not to amortise intangibles, which in the firms' judgement have indefinite lives (IFRS Foundation and the IASB, 2012).

With respect to the techniques for recognising development costs, the current UK GAAP and new UK GAAP (FRS 102) allow companies to report development costs as expenses or assets when certain conditions are satisfied (ASB, 2012; Ernst & Young, 2011a; Tsoligkas & Tsalavoutas, 2011). As required by IFRS, once development costs reach specific criteria, they must be treated as assets (Ernst & Young, 2011a; PwC, 2013a). In order to capitalise development costs under IFRS, companies still need to make their own judgement about whether it is feasible to utilise or sell the assets, which are generated by the development process, and whether the assets are expected to bring economic benefits (IFRS Foundation and the IASB, 2012; Tsoligkas & Tsalavoutas, 2011). Therefore, this thesis regards firms which comply with IFRS as companies with technique choices over reporting development costs. In this situation, companies have limited freedom to choose

techniques for recognising development costs (Tsoligkas and Tsalavoutas, 2011). Under the FRSSE (both 2008 and 2015 versions), development costs are often expensed, with few exceptions that can be deferred and capitalised (ASB, 2008, 2013).

Moreover, with regard to the techniques for valuing investments, under the current UK GAAP and FRSSE (both 2008 and 2015 versions), companies can apply the market approach to value investment property (ASB, 2008, 2013; ICAEW, 1981; PwC, 2013a). For the valuation of investments in financial instruments, current UK GAAP permits different techniques, including the cost and fair value approach (ACCA, 2013; PwC, 2013a). The FRSSE basically grants the implementation of the cost and market approach to measure other investments (ASB, 2008, 2013). Similar to the regulations about intangibles, the New UK GAAP and IFRS require companies to report investment property at cost (involving the concept of fair value) for initial recognition, and allow firms to use the fair value or cost methods for subsequent valuations (ASB, 2012; PwC, 2013a; PwC, 2015). Additionally, IFRS indicates that the initial valuation of financial instruments should be done using the fair value approach (Deloitte, 2015). Under IFRS, the further valuation mainly follows the fair value approach, whereas the cost approach is used in special cases (Deloitte, 2015). Under the New UK GAAP, the cost approach or the fair value approach will be applied, depending on the nature of financial instruments (ASB, 2012). It is true that, based on the IFRS, fair value is often the market value, particularly when there is an active market. However, fair value sometimes differs from the market value, and has a wider definition (Cairns, 2006). Since different types of investments come with different regulations and various regimes allow different approaches, this research

includes both the fair value approach and the market approach.

Table 3.4 outlines the principal technique choices, which UK firms currently have for valuing intangibles and investments and treating development costs, under different financial reporting regimes. Since UK companies, which are not required to implement IFRS, are given the option to voluntarily adopt IFRS, they can use techniques offered by IFRS by complying with IFRS. Table 3.5 displays UK companies' regime and technique choices from 2015. Although the regime choices vary from those before 2015, the technique choices do not change mainly due to the permission of voluntary IFRS adoption.

The technique choices shown in Table 3.4 and Table 3.5 can also be represented by decision trees. Firstly, the cost approach, income approach, and market approach are major techniques which UK companies can choose to value intangibles. This is presented in Figure 3.9. Secondly, UK firms can decide to recognise development costs as assets or expenses. Figure 3.10 describes this technique choice. Thirdly, when valuing investments (including investment properties and financial instruments), UK companies have the choices over the market value, fair value, and cost approaches. Their technique choices for valuing investments are exhibited in Figure 3.11. It should be noted that technique options might vary depend on the detailed classification of intangibles and investments. The figures and tables presented here only provide a general idea of technique choices.

Figure 3.9: UK Firms' Technique Choices for Valuing Intangibles

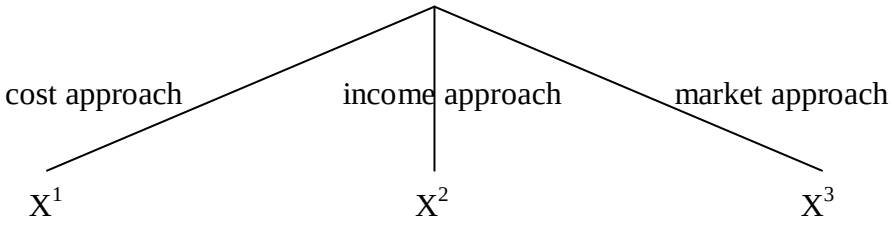


Figure 3.10: UK Firms' Technique Choices for Recognising Development Costs

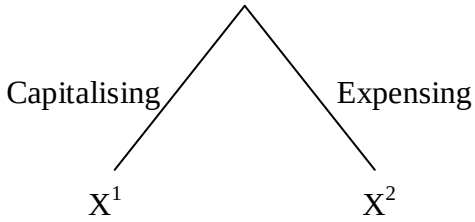
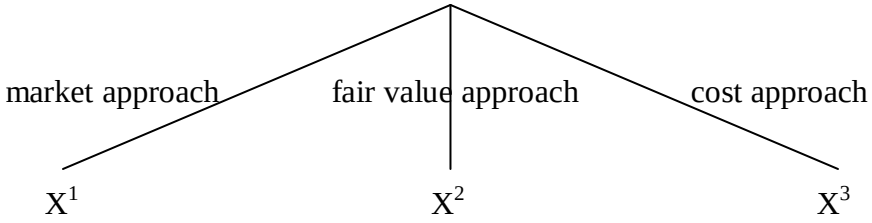


Figure 3.11: UK Firms' Technique Choices for Valuing Investments



The design of our instrumentation will follow the discussion of this section, and will include both regime choices and technique choices (see Chapter 4). The research tool considers both current and future accounting choices (before and after 2015). In the UK, the current regime choices consist of IFRS, current UK GAAP and FRSSE. The new UK GAAP will replace the current UK GAAP from 2015 onwards. In this thesis, UK GAAP refers to current UK GAAP unless otherwise specified. In terms of technique choices, this research focuses on treatments for valuing intangibles, recognising development costs, and valuing investments.

Table 3.4: Matrix of UK Firms' Regime and Technique Choices (Until the End of 2014)

Firms		Regimes and Techniques	Regime Choices			Technique Choices							
						Intangibles			Development Costs		Investments		
			IFRS	UK GAAP	FRSSE	Cost Approach	Income Approach	Market Approach	Recognise as expenses	Recognise as assets	Market Value	Fair Value	Cost Approach
Public (listed) firms	All size	Consolidated Accounts	✓	×	×	✓	✓	✓	✓	✓	✓	✓	✓
		Individual Accounts	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓
Private firms	Large and Medium		✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓
	Small		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note:

(1) ✓ denotes possible choice. × denotes impossible choice.

Table 3.5: Matrix of UK Firms' Regime and Technique Choices (From 2015)

Firms		Regimes and Techniques	Regime Choices				Technique Choices							
							Intangibles			Development Costs		Investments		
			IFRS	New UK GAAP		FRSSE	Cost Approach	Income Approach	Market Approach	Recognise as expenses	Recognise as assets	Market Value	Fair Value	Cost Approach
				FRS 102	FRS 101									
Public (listed) firms	All size	Consolidated Accounts	✓	×	×	×	✓	✓	✓	✓	✓	✓	✓	✓
		Individual Accounts	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓
Private firms	Large and Medium	Consolidated Accounts	✓	✓	×	×	✓	✓	✓	✓	✓	✓	✓	✓
		Individual Accounts	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓
	Small	Consolidated Accounts	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Individual Accounts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note:

(1) ✓ denotes possible choice. × denotes impossible choice.

(2) Companies have the option to adopt the New UK GAAP early. FRS 102 can be used from 31 December 2012, and there is no specific time limitation to adopt FRS 101 early.

3.3 Taiwanese Accounting Practice

The previous section emphasises UK accounting practice. This section introduces the financial reporting practice in Taiwan, and lays the groundwork for further comparative analysis. IFRS is officially introduced in Taiwan in 2013, and Taiwanese listed firms can choose to adopt it early from 2012 (TWSE, 2012a). The time of implementing IFRS in Taiwan is very different from that in the UK. Examining Taiwanese cases will be helpful to understand whether using IFRS can bring additional benefits to companies, across countries and at different time points (Daske et al., 2008). Furthermore, Taiwanese accounting authorities now modify several accounting regulations, and more regulatory changes in financial reporting are approaching (Ministry of Economic Affairs, R.O.C., 2014a, 2014b). Our research on Taiwanese accounting practice will therefore provide timely information, and has crucial policy insights. Moreover, Taiwan is famous for its high technology industry, which is significant for Taiwanese economy (Liu, 1993; R. Y. Y. Hung, Lien, Yang, Wu, & Kuo, 2011). Since this study explores techniques for valuing intangibles and for treating development costs, Taiwan is suitable research target, and the analysis of Taiwan high-tech firms should provide useful information.

The rest of this section is structured as follows: Section 3.3.1 reviews the major financial reporting regimes in Taiwan, and this includes recent changes in the accounting regulations. Section 3.3.2 examines what technique choices Taiwanese firms have across various regimes.

3.3.1 Taiwanese Companies' Choices over Financial Reporting Regimes

Current and Expected Adoption Framework of Financial Reporting Regimes (Before the Regulation Changes in June 2014)

The following introduces the adoption framework of regimes in Taiwan. The framework here is based on the accounting regulations before the end of June 2014 when a change in regulations happened. Our survey and framework in Taiwan were completed before the change. Therefore, the analysis in this thesis will follow the framework discussed in this subsection. The regulation change in June 2014 will be elaborated upon in the next subsection.

Before 2013 when IFRS was implemented in Taiwan, the Generally Accepted Accounting Principles in the Republic of China (ROC GAAP) was the most important financial reporting regime for Taiwanese companies. The ROC GAAP was first established in the 1980s by the Accounting Research and Development Foundation in Taiwan, and has been continuously revised over time (Accounting Research and Development Foundation in Taiwan, 2014). From 2013, Taiwanese listed companies and certain financial institutions which are supervised by the Financial Supervisory Commission, R.O.C. must report under IFRS. Qualified listed firms might choose to implement IFRS from 2012, with the permission of the authority (TWSE, 2012a). In addition, Taiwanese unlisted public firms, credit unions and credit card companies are required to comply with IFRS from 2015, with the choice to adopt IFRS early from 2013.

Different from the situation in the UK where the voluntary application of IFRS is

permitted for private firms and for individual accounts, Taiwanese accounting authorities do not allow the voluntary adoption of IFRS (TWSE, 2011a)[3]. Therefore, private Taiwanese companies have to prepare their financial reports using ROC GAAP as before. Subsidiaries of public firms in Taiwan do not have much discretion in regime choice either. If a subsidiary is a listed company, it needs to adopt IFRS from 2013. If a subsidiary is an unlisted public firm, it can choose either to adopt IFRS early from 2013 when its group is also required to use IFRS for the consolidated accounts, or it can choose to implement IFRS from 2015 when every unlisted public firm has to do so. If a subsidiary of a listed company is private, it still needs to provide its individual accounts within the framework of ROC GAAP (TWSE, 2011a).

Therefore, the regime which a Taiwanese firm can use depends on whether it is public or private, regardless of firm size. The adoption framework of financial reporting regimes in Taiwan can be summarised as follows, and is shown in Table 3.6 (TWSE, 2012a, 2012b). It can be observed that the regime choice of Taiwanese firms changes slightly across time because the authorities introduce IFRS to different types of companies gradually.

[3] Although the authority for private firms, Ministry of Economic Affairs, R.O.C., briefly mentioned that private companies could choose to report under IFRS from 2013 if needed, in fact they did not really have the regime choice. This was because the usage of IFRS could not violate the Business Entity Accounting Act and the Regulation on Business Entity Accounting Handling which were consistent with ROC GAAP before their revisions in 2014. The Regulation on Business Entity Accounting Handling also indicated that companies should refer to the GAAP (i.e., ROC GAAP, according to the authority) for issues not covered in this regulation. Therefore, private firms in principle could only implement ROC GAAP (TWSE, 2011a, 2012b). This was also the common understanding amongst practitioners.

(1) Publicly listed Taiwanese firms must adopt IFRS from 2013 onwards, with the option to adopt it from 2012 (see row one in Table 3.6).

(2) Unlisted public Taiwanese firms should comply with IFRS from 2015, with the choice to use IFRS from 2013 onwards (see row two in Table 3.6).

(3) Private Taiwanese firms have to report under ROC GAAP (see row three in Table 3.6).

Table 3.6: Matrix of Taiwanese Firms' Current and Expected Regime Choices (Before the Regulation Changes in June 2014)

Firms \ Regimes		2012		2013-2014		2015 onwards	
		IFRS	ROC GAAP	IFRS	ROC GAAP	IFRS	ROC GAAP
Public firms	Listed*	✓	✓	✓	×	✓	×
	Unlisted#	×	✓	✓	✓	✓	×
Private firms		×	✓	×	✓	×	✓

Note:
(1) ✓ denotes possible choice. × denotes impossible choice.
(2)* The financial institutions supervised by the Financial Supervisory Commission R.O.C., excluding credit unions, credit card companies and insurance brokers, also need to comply with the same regulation as the listed companies. Qualified listed companies and financial institutions could adopt IFRS early from 2012.
(3)# The credit unions and the credit card companies are required to follow the same regulation as the unlisted public firms.

As the illustration of UK firms' choices, Taiwanese firms' regime choices can also be represented by decision trees, where possible choices are given by branches, and the

time when companies can use the regimes is shown on the top of the trees. Figure 3.12 and Figure 3.13 present the regime choices of Taiwanese listed and unlisted public companies, respectively. They clearly show the gradual introduction of IFRS in Taiwan. It can be observed in these two figures that Taiwanese public firms have free regime choices only when the authority gives them the choice of early adoption. Furthermore, Taiwanese private companies can only use ROC GAAP, according to the regulation before the mid-2014. Their tied choice is exhibited in Figure 3.14.

Figure 3.12: Tied and Free Choices of Financial Reporting Regimes (Taiwanese Publicly Listed Firms)

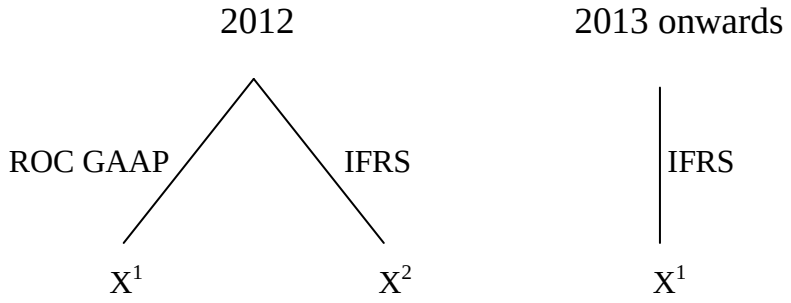


Figure 3.13: Tied and Free Choices of Financial Reporting Regimes (Taiwanese Unlisted Public Firms)

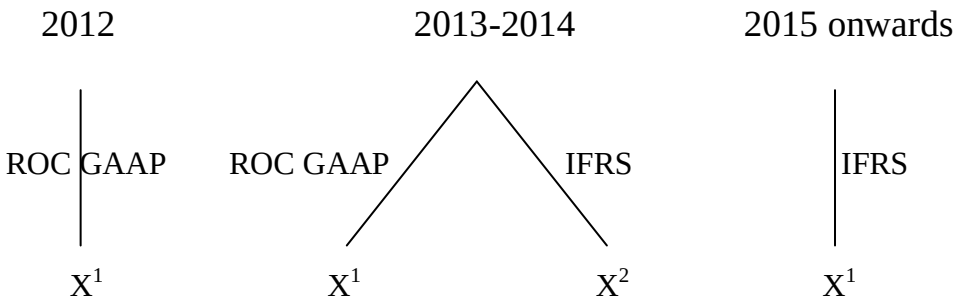
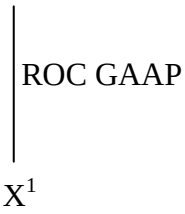


Figure 3.14: A Tied Choice of Financial Reporting Regimes (Taiwanese Private Firms; Before the Regulation Changes in June 2014)



Latest Policy Development in Regimes

In order to respond to the trend of IFRS and reflect the current economic environment, the authority of Taiwanese private firms, Ministry of Economic Affairs, R.O.C., revised the accounting regulations, Business Entity Accounting Act, in June 2014 (Ministry of Economic Affairs, R.O.C., 2014a). The authority continues to modify the Regulation on Business Entity Accounting Handling, which is the sub-law of the Business Entity Accounting Act (Ministry of Economic Affairs, R.O.C., 2014b, 2014c). The amendment, based on IFRS and IFRS and SMEs, in 2014 makes Taiwanese accounting regulations become consistent with IFRS. The authority believes that the change will enhance Taiwanese firms' competitiveness in global markets. The treatments and terms in financial reports are changed to be consistent with IFRS. The effective date of the new regulation is 1st January 2016, and firms can choose to adopt it from 2014.

Before this revision, Taiwanese private firms in principle could only adopt ROC GAAP (TWSE, 2011a, 2012b). The authority addressed that, on the premise of complying with the Business Entity Accounting Act and the Regulation on Business Entity Accounting Handling, private firms could choose to use IFRS from 2013.

Nonetheless, these two regulations echoed ROC GAAP at that time. Additionally, the Regulation on Business Entity Accounting Handling marked that companies should follow the GAAP (i.e., ROC GAAP, according to the authority) for issues not covered in this regulation. Hence, private firms could only adopt IFRS when the treatments were not mentioned by ROC GAAP. In this situation, it was widely accepted that Taiwanese private firms needed to comply with ROC GAAP. Because of this, a Taiwanese private subsidiary of a listed company had to use ROC GAAP, while its parent was required to report under IFRS (TWSE, 2011a). This private subsidiary needed to implement ROC GAAP for its individual account and at the same time it had to provide the financial information which was consistent with IFRS for its group's consolidated account. Under these circumstances, it was very costly for such subsidiaries to prepare financial reports using two regimes, particularly considering its smaller scale.

Since the new regulation is adapted to fit IFRS, private subsidiaries of listed companies should benefit from this policy change by reporting financial results within a framework which is similar to IFRS (Ministry of Economic Affairs, R.O.C., 2014a). This should reduce their burden of using two distinct financial reporting regimes. Furthermore, the amendment is expected to make financial reports more consistent across divisions within a corporate group, which consists of both private and public firms. The authority also pledges to help private subsidiaries of listed companies by giving private firms the option to adopt the new regulation early from 2014 (Ministry of Economic Affairs, R.O.C., 2014a). The early adoption should be attractive for such subsidiaries. On the other hand, the new regulation shares a great deal of similarity with IFRS and changed the way in which private firms used to

report. Although the authority does not rule out the application of ROC GAAP, Taiwanese private firms should first comply with the new regulation, which is IFRS based, and choose between ROC GAAP and IFRS regarding aspects, which are not specified by the regulation. In this situation, private firms do not have much discretion in financial reporting regimes, and must familiarise themselves with the concept of IFRS. For smaller private firms, particularly for those which do not belong to corporate groups, it might be costly to comply with the new accounting regulation.

After the announcement that Taiwanese public firms have to comply with IFRS from 2013, it has been a long discussion that the authority of Taiwanese private firms might introduce IFRS for SMEs. The Ministry of Economic Affairs, R.O.C. has run the relevant promotion and education programmes for several years. It is uncertain when the authority will allow Taiwanese private firms to use IFRS for SMEs. However, the modification of the above two accounting regulations in 2014 should help to increase the consistency of financial reports across Taiwanese public and private firms.

Discussion of Taiwanese Accounting Regimes

Nowadays, more and more Taiwanese companies invest in other companies and become part of corporate groups. They are also involved in international trades more (National Statistics R.O.C., 2012). Therefore, ROC GAAP which emphasises individual accounts can no longer provide enough information about companies (PwC Taiwan, 2008a). In order to attract potential foreign investors, and to enhance the quality of financial reports, the Taiwanese authority introduced IFRS into Taiwan

in 2013. The implementation of IFRS, which focuses on consolidated accounts, is anticipated to provide more complete information of business operations for investors. This should be beneficial for Taiwanese capital markets, and should help to enhance the corporate governance and the competitiveness of Taiwanese companies (TWSE, 2012a). The enforcement of IFRS also aims to help the internationalization of Taiwanese firms by reducing relevant costs, such as financial reporting costs and fundraising costs, because IFRS is widely adopted in the world (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2010).

The IFRS adopted in Taiwan is sometimes called Taiwan-IFRS. It is almost the same as the IFRS used in Europe (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2013). However, the current Taiwan-IFRS has not included the revision of IFRS from 2010 inwards (Securities and Futures Bureau, Financial Supervisory Commission, R.O.C., 2014a). The later version of Taiwan-IFRS with the amendment of IFRS during 2010 and 2012 will become effective from 2015. The authority has not allowed the usage of IFRS 9, and has not decided its effective date yet (Securities and Futures Bureau, Financial Supervisory Commission, R.O.C., 2014a).

EU-adopted IFRS and Taiwan-IFRS have several differences. For example, the Taiwanese accounting authority limits firms' use of the fair value approach to measure investment property in the beginning, but then releases the regulation from 2014 (Liao, 2014). Under Taiwan-IFRS, the interim financial report should be complete and the condensed form, which is allowed under EU-adopted IFRS, cannot be used (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2013). In addition, Taiwan-IFRS has special treatments for the preferred

stocks, which were issued before 2006 and contained the features of liabilities. If Taiwanese companies have recognised these preferred stocks as equity, they can be exempted from the regulation of IFRS (viz., IAS 32) under which preferred stocks with the liabilities attributes should be treated as liabilities (KPMG Taiwan, 2011).

There are several inherent differences between ROC GAAP and IFRS. First of all, the terms, the format and the content of financial reports are different under these two financial reporting regimes (Deloitte Taiwan, 2012; PwC Taiwan, 2012). ROC GAAP focuses on individual accounts, whereas IFRS emphasises consolidated accounts (PwC Taiwan, 2008a). Since there are more and more corporate groups in Taiwan, there is a need to improve the quality of consolidated financial statements (PwC Taiwan, 2008a). Hence, IFRS might be helpful in this aspect. Furthermore, ROC GAAP is rules-based, and explains accounting treatments in detail. However, IFRS is principles-based, and only provides broad guidelines of how companies should report their financial results (PwC Taiwan, 2012). Therefore, the financial reports prepared under IFRS involve more judgement. Additionally, ROC GAAP gives attention to the reliability of financial statements, and often uses the cost approach for valuation. Nonetheless, IFRS emphasises the relevance of financial information, and applies the concept of fair value (Deloitte Taiwan, 2012).

There are also many differences in more detailed regulations between ROC GAAP and IFRS (TWSE, 2011b). For example, IFRS requires companies to use the fair value approach when they revalue tangible and intangible properties. However, the fair value measurement is not applicable in the revaluation under ROC GAAP (Deloitte Taiwan, 2012). Moreover, ROC GAAP and IFRS have different requirements for the following aspects: the treatment of contingent liability, the

recognition of revenue, the calculation of foreign currency, the treatment of employee compensation plan and the classification and the recognition of taxes (TWSE, 2011b).

Many CPA firms and research institutions have started to explore the potential impact of IFRS adoption in Taiwan. There are advantages and disadvantages of adopting IFRS. Most people think that it is more difficult to comply with IFRS because the IFRS only provides principles, without clear instructions. Furthermore, the IFRS requires companies to establish their own policies and to make good judgements when reporting their financial results (Deloitte Taiwan, 2010a; PwC Taiwan, 2008b). Therefore, people in firms need to have a better understanding of business operations, and to acquire a deeper knowledge of accounting, to make good judgements in financial reporting (Chou & Lin, 2012). Companies also have to disclose more detailed information under IFRS. Hence, applying IFRS is time-consuming and laborious and the complexity of financial reporting increases (E.Sun Bank, 2009; PwC Taiwan, 2008c). Furthermore, IFRS involves a considerable amount of estimation and applies the concept of fair value. This might result in more fluctuations in financial results (Deloitte Taiwan, 2012; PwC Taiwan, 2008c). Under these circumstances, the risk management and corporate governance become more and more crucial (PwC Taiwan, 2008c). Since IFRS depends more on managers' judgement and emphasises the usage of fair value, investors need to gain more knowledge of accounting to understand the IFRS financial reports, and to compare the financial results across companies (Deloitte Taiwan, 2012; PwC Taiwan, 2008b). Because of the regulation difference between IFRS and ROC GAAP, companies also need to reconsider their relationship with related parties and business management

(e.g., management of financial and human resources), and to adjust their accounting information systems to obtain adequate information to meet the financial reporting purpose of IFRS (Deloitte Taiwan, 2011a; PwC Taiwan, 2008c).

Although adopting IFRS which requires detailed disclosure and professional judgement is costly, it is also expected to enhance the transparency and the comparability of financial reports (Deloitte Taiwan, 2011a). Moreover, the consolidated financial statements required by IFRS will provide more complete information of group operations, and should benefit the users of financial reports (PwC Taiwan, 2008a). Additionally, implementing IFRS is anticipated to improve the efficiency of Taiwanese capital markets, and to increase the competitiveness of Taiwanese companies in global markets, by reducing firms' fundraising costs and attracting more foreign investors and capitals (Deloitte Taiwan, 2011a; PwC Taiwan, 2008b).

Table 3.7 summarises the anticipated advantages and disadvantages of adopting IFRS in Taiwan (Deloitte Taiwan, 2011a; PwC Taiwan, 2008c; TWSE, 2012a). As exhibited early in Table 3.3, empirical data suggests that the implementation of IFRS in the UK leads to more efficient investment markets, and better quality of financial reports. Table 3.7 shows that Taiwan might obtain similar benefits which the UK has experienced from applying IFRS. In addition, both tables indicate that it is complicated and costly to use IFRS.

As previously mentioned in the UK practice, this thesis will also explore whether Taiwanese companies do receive additional benefits from adopting IFRS. Using Taiwanese firm data, the researcher will calibrate companies' overall costs and

benefits of implementing IFRS, and will use nonparametric tests to examine the impact of IFRS adoption on Taiwanese firms. The statistical results can be found in Chapter 8. Chapter 9 will also elaborate Taiwanese firms' opinions on IFRS using interview data. Our research, which estimates the overall adoption costs and benefits of IFRS and conducts qualitative analysis, will help to evaluate the anticipated consequences of applying IFRS shown in Table 3.7 (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009).

Table 3.7: Advantages and Disadvantages of Adopting IFRS (Taiwan Setting)

Disadvantages	Advantages
More efforts and deeper professional knowledge are needed to prepare financial reports because there are more judgements to be made	IFRS financial reports provide more complete and accurate information (e.g., the situation of group operations from the consolidated accounts)
There will be more fluctuations in financial results because IFRS involves more subjective judgement and estimation	IFRS adoption helps to enhance the comparability and the transparency of financial reports
It is more costly and complicated to comply with IFRS because of the higher level of disclosure	IFRS implementation helps to improve the efficiency of Taiwanese capital markets, and to attract more international investors and foreign capital

3.3.2 Taiwanese Companies' Choices over Financial Reporting Techniques

Following the previous section which explores Taiwanese companies' regime choices, this section investigates their technique choices under different regimes. These two sections together will give a complete picture of what accounting modes Taiwanese

firms can choose. The discussion of this section is based on the regulatory framework in 2014, before the amendment of accounting regulations later in the same year. This framework is the one that Taiwanese companies had to follow when they participated in the surveys and interviews of this research.

Even though Taiwanese companies often cannot choose their regimes, they are able to make decisions regarding detailed techniques in financial reporting (PwC Taiwan, 2012). As with the situation of UK cases, this section focuses on techniques for valuing intangibles, treating development costs and valuing investments (Barth, 1994; Canibano et al., 2000; Cazavan-Jeny et al., 2011; Fields et al., 2001). Taiwan is known for its high technology industry, and this industry plays an important role in Taiwan's economy (Liu, 1993; R. Y. Y. Hung et al., 2011). Therefore, Taiwanese companies will be very suitable for this research, which emphasises intangibles and R&D. Taiwanese firms' technique choices are elaborated as follows:

Firstly, regarding the techniques for valuing intangibles, both Taiwan-IFRS and ROC GAAP require the initial recognition of intangibles to be done at cost, which contains the concept of fair value (Accounting Research and Development Foundation in Taiwan, 2014; Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2015). There are three approaches which companies can apply to measure the fair value of intangibles: the market approach, income approach and cost approach (Deloitte Taiwan, 2010b). These three approaches are available under Taiwan-IFRS and ROC GAAP. In addition, Taiwan-IFRS and ROC GAAP have different regulations regarding the subsequent valuation of intangibles. Taiwan-IFRS only allows the use of the cost approach, whereas firms might choose between the cost approach and a specific revaluation method under ROC GAAP (Small and

Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2015).

With regard to treating development costs, companies have to recognise these costs as assets when specific conditions are satisfied, under both Taiwan-IFRS and ROC GAAP (Accounting Research and Development Foundation in Taiwan, 2014; Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2015). The regulation is the same as the EU-adopted IFRS. For instance, firms have to demonstrate that the assets can be used or sold, and will generate future economic benefits (Accounting Research and Development Foundation in Taiwan, 2014). There are more criteria, which companies have to meet, in order to report development costs as assets. Since firms have to make their own judgement regarding recognition requirements, they can still choose between capitalising and expensing development costs.

Regarding the techniques for valuing investments, ROC GAAP requires companies to use the cost approach to value investment property (Deloitte Taiwan, 2012). ROC GAAP also has its own revaluation method, which is not consistent with the fair value concept in IFRS (Deloitte Taiwan, 2012). Under Taiwan-IFRS, companies can choose between the fair value and the ROC GAAP revalued amount, for the initial recognition of investment property (PwC Taiwan, 2012). For the subsequent valuation, Taiwan-IFRS permits the implementation of the fair value model and the cost model (Securities and Futures Bureau, Financial Supervisory Commission, R.O.C., 2013). Although the authority of Taiwanese listed companies indicates that firms should adopt the income approach when using the fair value model to value investment property (apart from a special method for treating undeveloped land), it allows certain companies to adopt the market approach as an exemption (Securities

and Futures Bureau, Financial Supervisory Commission, R.O.C., 2013). Even so, the method which practitioners use might still be closer to the market approach (Deloitte Taiwan, 2014). Since fair value has a wider definition than market value (Cairns, 2006) and different firms are permitted to adopt different approaches, we include the market approach as a technique choice for valuing investment property. Furthermore, under Taiwan-IFRS and ROC GAAP, Taiwanese firms in principle should apply the fair value approach to value financial instruments, and can use the cost approach in certain conditions (KPMG Taiwan, 2012). The above treatment is consistent with EU-adopted IFRS. For the valuation of emerging stocks or shares of private firms, only the cost approach is granted under ROC GAAP (KPMG Taiwan, 2012)

Table 3.8 summarises Taiwanese firms' technique choices regarding valuing intangibles and investments, and recognising development costs, given their financial reporting regimes. In contrast to UK firms, which often have regime choices, Taiwanese companies do not have regime choices under the current framework. This situation also limits Taiwanese firms' technique choices to some degree. For example, compared to UK private firms, Taiwanese private firms have less discretion when valuing investments. UK private firms can choose from the market, fair value, and cost approach. However, Taiwanese private companies can only implement the cost approach to value investments.

Table 3.8: Matrix of Taiwanese Firms' Regime and Technique Choices in 2014 (Before the Regulation Changes in June 2014)

Regimes and Techniques / Firms		Regime Choices		Technique Choices							
				Intangibles			Development Costs		Investments		
		IFRS	ROC GAAP	Cost Approach	Income Approach	Market Approach	Recognise as expenses	Recognise as assets	Market Value	Fair Value	Cost Approach
Public firms*	All size	✓	×	✓	✓	✓	✓	✓	✓	✓	✓
Private firms	All size	×	✓	✓	✓	✓	✓	✓	×	×	✓

Note:

(1) ✓ denotes possible choice. × denotes impossible choice.

(2) *In Taiwan, publicly listed firms and certain financial institutions are required to use IFRS since 2013, with the choice of early adoption from 2012. Taiwanese unlisted public firms, credit unions and the credit card companies must implement IFRS from 2015 onwards, and can voluntarily adopt IFRS from 2013 onwards.

(3) Although Taiwanese private firms in principle can only adopt ROC GAAP, the authority has amended the Business Entity Accounting Act and its sub-law to fit the global trend and the current economic environment in 2014. The revision is based on IFRS and IFRS for SMEs. The new regulation will be enforced from 2016, and can be adopted voluntarily by firms from 2014.

Decision trees can also represent Taiwanese firms' technique choices outlined in Table 3.8. Firstly, the cost approach, income approach, and market approach are available for Taiwanese firms to value intangibles, and this is shown in Figure 3.15. Secondly, Taiwanese companies can choose to capitalise or expense development costs, as described by Figure 3.16. While Taiwanese public companies which comply with IFRS can choose from the market, fair value, and cost approach to value investments, Taiwanese private firms must use the cost approach. Taiwanese public and private firms' technique choices regarding investment valuations (including investment properties and financial instruments) are exhibited in Figure 3.17 and 3.18, respectively. It should be noted that the different types of intangibles and investments are subject to different regulations. The figures and tables here only present a general picture of technique choices.

Figure 3.15: Taiwanese Firms' Technique Choices for Valuing Intangibles (In 2014; Before the Regulation Changes in June 2014)

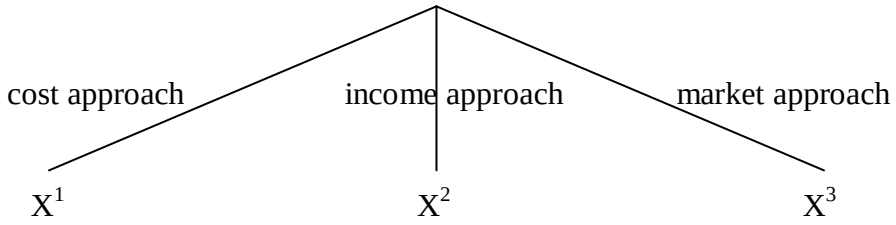


Figure 3.16: Taiwanese Firms' Technique Choices for Recognising Development Costs (In 2014; Before the Regulation Changes in June 2014)

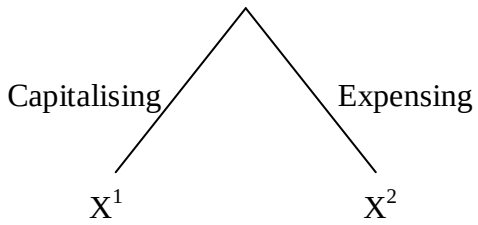


Figure 3.17: Taiwanese Public Firms' Technique Choices for Valuing Investments (In 2014; Before the Regulation Changes in June 2014)

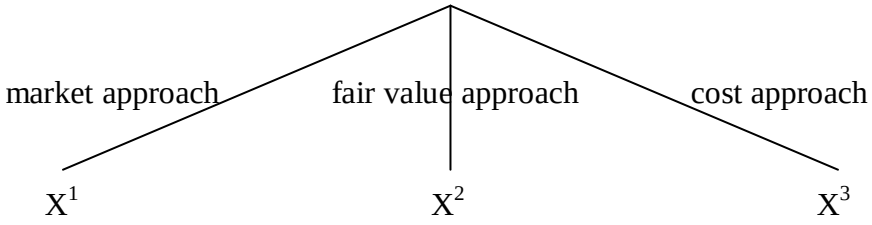
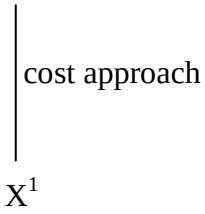


Figure 3.18: Taiwanese Private Firms' Technique Choices for Valuing Investments (In 2014; Before the Regulation Changes in June 2014)



3.4 Discussion of UK and Taiwanese Practices

Section 3.2 and Section 3.3 elaborate UK and Taiwanese accounting practices and explain UK and Taiwanese firms' regime and technique choices. This section discusses the similarities and differences between UK and Taiwan in terms of financial reporting regulations. The complete comparative analysis between UK and Taiwan, including companies' choice behaviours and firms' perceived costs and benefits of adopting IFRS, will be illustrated in Section 9.4.

Firstly, both UK and Taiwanese accounting authorities have enforced the IFRS adoption. However, the implementation timescales are very different. The UK is amongst the countries that applied IFRS earliest, whereas Taiwan only introduced

IFRS in 2013 (Christensen et al., 2009; TWSE, 2012a). They also have different regulations regarding who should mandatorily use IFRS. In the UK, companies listed in regulated markets and AIM should adopt IFRS for their consolidated accounts (IFRS Foundation and the IASB, 2013). In Taiwan, all public firms are required to implement IFRS (TWSE, 2012a). Whilst UK unlisted public firms can determine whether to comply with IFRS, Taiwanese unlisted public firms must adopt IFRS compulsorily.

Secondly, UK firms have more regime choices than Taiwanese firms. For instance, UK firms which are not required to adopt IFRS are given the choice to voluntarily implement IFRS (IFRS Foundation and the IASB, 2013). However, the voluntary IFRS adoption is not allowed in Taiwan. Although Taiwanese authority claims private firms can choose between IFRS and ROC GAAP, the accounting regulations are based on ROC GAAP before the policy changes in mid-2014. The laws become consistent with IFRS after the amendment. Since Taiwanese private firms have to comply with these regulations before choosing regimes, they in principle can only use ROC GAAP before the regulation change (TWSE, 2011a, 2012b). They will have to report under IFRS after the enforcement of the new regulations from 2016 (Ministry of Economic Affairs, R.O.C., 2014a). Because of the inconsistency and the lack of flexibility in accounting regulations, Taiwanese companies (e.g., a private firm and a public firm) in the same corporate groups might have to apply different accounting treatments (TWSE, 2011a). This also makes their compliance costs higher. Moreover, qualified UK private small firms can choose from amongst IFRS, UK GAAP, and FRSSE (FRC, 2014). Nonetheless, there has not been a special financial reporting regime designed for smaller firms in Taiwan. Taiwanese private small firms

therefore have less regime choices than similar firms in the UK. This also shows that Taiwanese authorities might need to take into account firms' various adoption costs when set up accounting regulations (Jones & Higgins 2006). In addition, UK listed firms can choose to prepare their individual accounts under IFRS or UK GAAP. Taiwanese public firms do not have regime choices for individual accounts, and must adopt Taiwan-IFRS (Securities and Futures Bureau, Financial Supervisory Commission, R.O.C., 2014b). Hence, Taiwanese companies, including public and private, have fewer regime choices in financial reporting than UK firms. The constrained regime choices also reduce the degree of freedom of Taiwanese firms in selecting techniques.

Furthermore, there are several differences between the IFRS used in the UK and the one implemented in Taiwan (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2013). For instance, currently Taiwan does not use the latest version of IFRS because the authority aims to introduce different versions of IFRS step by step. In several aspects (e.g., the subsequent valuation of intangibles), UK firms can use the fair value approach, whereas Taiwanese authority does not allow the application (PwC Taiwan, 2012; Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2015).

The above paragraphs indicate major differences of accounting regulations between UK and Taiwan. This research will further explore whether UK and Taiwanese firms behave differently in financial reporting. Chapter 9 will provide the comparative analysis of accounting choices and practices between UK and Taiwan.

3.5 Development of a Two-Stage Choice Model of Financial Reporting Regimes and Techniques

The earlier sections (i.e., Sections 3.2 and 3.3) in this chapter explore UK and Taiwanese firms' actual options in financial reporting. This section aims to link the theories and models indicated in Chapter 2 to the accounting practices discussed in this chapter. Building on Chapter 2, this section further develops the two-stage choice model of accounting modes, and explains how this model can be used to investigate companies' choice behaviours in accounting.

The rest of this section is structured in the following manners. Section 3.5.1 demonstrates the two-stage choice model of financial reporting regimes and techniques using UK and Taiwan adoption frameworks. Section 3.5.2 elaborates how the choice patterns, preference orderings, and econometric estimation explained in Chapter 2 can be applied to study firms' accounting choices, under the scheme of the two-stage choice model of financial reporting regimes and techniques. This section will lay the groundwork for the empirical analysis in the coming chapters.

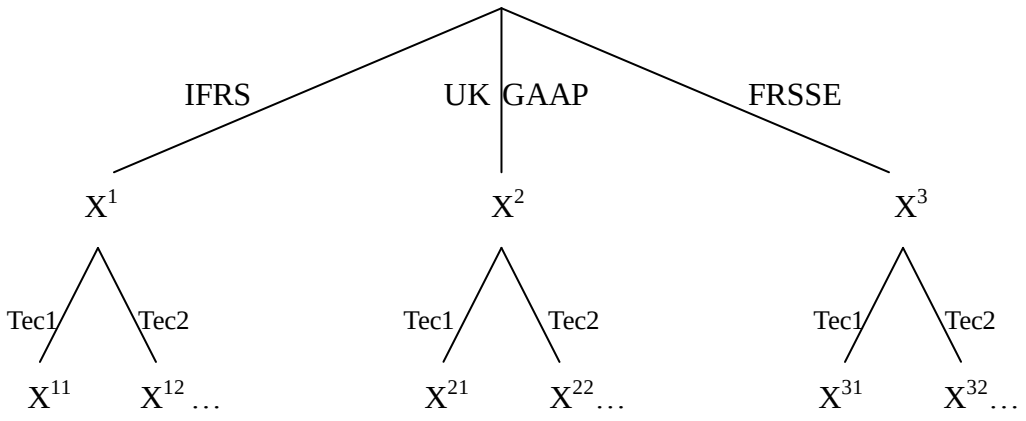
3.5.1 Two-Stage Choice Model of Financial Reporting Regimes and Techniques

UK Firms' Two-Stage Choice Model of Regimes and Techniques

Recalling the two-stage choice model of accounting modes shown in Figure 2.4, the first stage is regarding regime choices and the second stage models the choices of technique combinations. Based on Section 3.2, a two-stage choice model of regimes and techniques in the UK setting can be found in Figure 3.19. This model outlines

UK small private firms' options in financial reporting (until the end of 2014), where they had complete freedom of choices. This model presents choices in two stages. The upper part of Figure 3.19 indicates the regime choices and the bottom part of the figure displays the technique choices. For regimes, UK small private firms can choose from amongst IFRS, UK GAAP and FRSSE. This can be seen in the upper part of Figure 3.19, where three branches list three regime choices, and X^i expresses the alternative of regime i. If a company adopts IFRS, X^1 is its regime choice. If a firm uses the FRSSE, its regime choice is X^3.

Figure 3.19: UK Small Private Firms' Regime Choices and Technique Choices (Until the End of 2014)



Under each regime, firms have different technique choices. Since there are many techniques to treat different aspects of financial reports, the branches in the bottom part of the figure represent combinations of techniques, rather than a single technique. For instance, for valuing investment property, companies have to use the market approach under UK GAAP and FRSSE, and they can use the fair value approach or the cost approach under IFRS. In addition, companies can recognise development costs as assets or as expenses under IFRS, UK GAAP and FRSSE, even though the

recognition requirements are different across these three regimes. Therefore, the technique combinations at least consist of techniques for treating development costs and those for valuing investment property. In the bottom part of Figure 3.19, these branches with *Tec1* and *Tec2* denote various combinations of techniques that companies can choose from, and X^{ij} represents an alternative of accounting modes, where i denotes regime i and j denotes technique combination j. If a company adopts IFRS and chooses the first technique combination under IFRS, its accounting choice is X^{11}. If a firm implements the FRSSE and chooses the second technique combination under the FRSSE, its accounting choice is X^{32}.

To illustrate the concept of technique combinations, we can simplify the choice problem and only consider the techniques for valuing investment property and those for treating development costs. Assuming an UK small private firm decides to adopt the FRSSE (X^3) and it now needs to choose the technique combinations (X^{3j}). Under the FRSSE, companies have to apply the market approach to value investment property and can choose to capitalise or expense development costs. In this situation, this firm will face two technique combinations: (a) use the market approach to value investment property and capitalise development costs; (b) use the market approach to value investment property and expense development costs. Let option (a) and option (b) be the technique combination 1 and 2 under the FRSSE respectively. If this firm choose to value investment property using the market approach, and to capitalise development costs under the FRSSE, its accounting choice will be X^{31}.

Although Figure 3.19 only shows two technique combinations under each regime, in reality companies should have much more technique combinations to choose from. Moreover, *Tec1* and *Tec2* are used to indicate the first and the second technique

combinations, given a regime. *Tec1* and *Tec2* under different regime are often different.

Figure 3.19 can also help to explain other UK firms' accounting choices. Firstly, UK listed companies must adopt IFRS for their consolidated accounts and their two-stage choice model is with a tied regime choice in the first stage. They can still determine their techniques when technique choices are given by IFRS. Hence, only the left branch (IFRS: X^1) and the technique combinations following this branch (X^{1j}) in Figure 3.19 are applicable to UK listed firms' consolidated accounts.

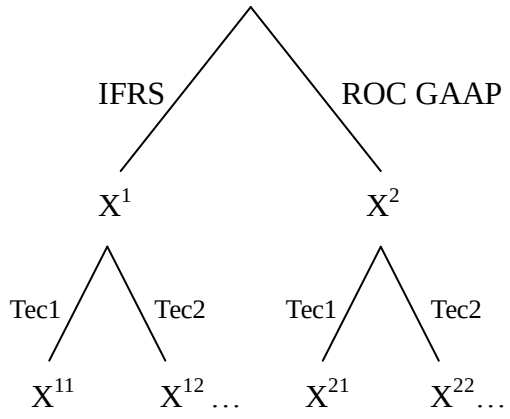
Secondly, UK listed companies can adopt IFRS or UK GAAP for their individual accounts. UK large and medium private firms also have the same regime choices. For these firms, the left branch (IFRS: X^1) and the middle branch (UK GAAP: X^2) in Figure 3.19, and the technique combinations following these two branches (X^{1j} and X^{2j}) are available accounting choices.

Taiwanese Firms' Two-Stage Choice Model of Regimes and Techniques

Following the UK firms' choice model displayed in Figure 3.19, this section aims to illustrate Taiwanese companies' two-stage choice model of accounting modes. Figure 3.20 outlines Taiwanese listed companies' accounting choices in 2012, when they were given the choice to adopt IFRS early. This model consists of regime choices (the upper part of this figure) and technique choices (the bottom part of this figure). The two branches in the upper part of Figure 3.20 present the two regimes, IFRS and ROC GAAP, which Taiwanese listed companies can implement in 2012. As with the UK model, X^i in this figure also denotes the regime alternative i. If a company adopts IFRS, its regime choice is X^1. If a firm chooses ROC GAAP, its regime

choice is X^2.

Figure 3.20: Taiwanese Listed Firms' Regime Choices and Technique Choices (In 2012)



The branches (with *Tec1* and *Tec2*) in the bottom part of Figure 3.20 indicates different technique combinations under each regime, and X^{ij} denotes the alternative of regime i and technique combination j. If a company decides to use ROC GAAP and chooses the first technique combination under ROC GAAP, its accounting choice is X^{21}. This thesis focuses on the techniques for valuing intangibles, treating development costs and valuing investments. Hence, the technique combinations will contain techniques regarding the above three aspects.

Taiwanese listed companies must implement IFRS from 2013 onwards. Hence, since 2013, these firms' choice model only consists of the left branch (IFRS: X^1) of Figure 3.20 and the subsequent technique combinations X^{1j}. Figure 3.20 can also be used to elaborate other Taiwanese companies' accounting choices. Firstly, Taiwanese unlisted public companies must adopt IFRS from 2015 onwards and they have the option to implement it early from 2013. Therefore, in 2013 and 2014, Taiwanese unlisted public companies' accounting choice model will also be the model shown in Figure

3.20. From 2015 onwards, only the left branch (IFRS: X^1) in Figure 3.20 and the technique combinations following this branch are available (X^{1j}) for these companies. Additionally, Taiwanese private firms in principle can only report under ROC GAAP before the regulation changes in mid-2014. Hence, only the right branch (ROC GAAP: X^2) and the subsequent choices of technique combinations (X^{2j}) are applicable to Taiwanese private firms.

3.5.2 Choice Behaviours, Preference Orderings, and Econometric Estimation

This section combines the choice patterns, preference orderings and econometric estimation which are introduced in Chapter 2, and explains how these concepts can be used to explore companies' behaviours in the two-stage choice model of financial reporting regimes and techniques. As mentioned in Section 2.3.1, there are three possible choice patterns in a two-stage choice model. Two of them are sequential choices and one of them is a nested choice. The first sequential choice happens when an individual determines the choice problem of the first stage before considering the choices in the second stage. The second sequential choice is opposite to the first sequential choice: the choosing process starts from the second stage and moves on to the first stage of the model. The third choice pattern is a nested decision-making process, where an individual evaluates choices in both stages and makes the decision simultaneously.

In a two-stage choice model of accounting modes, if a firm first chooses its regime (X^i) without considering the technique choices and elects technique combinations (X^{ij}) under the chosen regime, this will be the first-type sequential choice (from stage one to stage two). This decision-making process can be formally expressed by a

lexicographic ordering. In this situation, this firm first chooses from the choice set of financial reporting regimes $\{X^1, X^2, \ldots\}$ and elects the one that generates the highest utility $u(X^i)= x_i$. It then chooses the technique combinations with the highest utility x_{ij}. Each accounting choice X^{ij} can be considered as an ordered set $X^{ij} =(x_i, x_{ij})$, where the first utility x_i is related to the regime choice and the second utility x_{ij} is associated with the choice of technique combinations. The utility of an accounting alternative X^{ij} will be determined by the utility of the relevant regime choice and technique choice and can be expressed as a function of regime and technique utilities, $u(X^{ij})=f(x_i, x_{ij})$. Since all technique combinations under regime i will share the same regime utility x_i, this firm now only needs to compare the second utility items x_{ij} under this chosen regime. Furthermore, the utility associated with technique combination x_{ij} is a function of utilities of different techniques for treating various parts of financial reports. This can be expressed as $x_{ij} =f(\mathbf{x}_{ijk})=f(x_{ij1}, x_{ij2}, \ldots)$, where k indicates different aspects of financial reports. As pointed out in Section 2.3.2, this sequential choice with a lexicographic preference ordering can be estimated by a sequential logit model. This decision-making process often happens when the choice problem in the first stage (i.e., regime choices) is more important than that in the second stage (i.e., technique choices).

Considering the second-type sequential choice: Suppose a company makes accounting decisions in stages. However, in contrast to the first-type sequential choice, the company first elects techniques and then decides its regime. Its decision-making process starts from the second stage and moves on to the first stage. Under these circumstances, this firm follows a colexicographic preference ordering when choosing accounting modes. The company first considers the utilities of

technique combinations $x_{ij} = f(\mathbf{x}_{ijk})$, where k refers to various aspects of financial reports. After electing the technique combination with the maximum utility, this firm determines its financial reporting regime, by comparing utilities of regimes $\{x_1, x_2, \ldots\}$. The discussion in Section 2.3.1 implies that when a firm prioritises the choice in the second stage (i.e., technique choices), it tends to make accounting choices in a colexicographic order. So far, none of existing econometric models can be used to estimate the sequential choice with a colexicographic ordering (see Section 2.3.2).

The third type of choice behaviour in the two-stage choice model is called a nested choice or a simultaneous choice. In a nested choice, a firm considers and evaluates all available choices of regimes and techniques and chooses the accounting mode X^{ij} which maximises the utility $u(X^{ij})=f(x_i, x_{ij})$. When choosing the accounting mode X^{ij}, this company actually determines its regime and technique simultaneously. The firm does not make accounting choices in stages and the nested choice is derived from balancing the utilities of regimes and techniques. When the relative importance of regime choices and technique choices is not clear, a company tend to make accounting decisions simultaneously. Although there is no specific preference ordering to express the nested choice, this decision-making process is often discussed in choice studies (Bellemare & Barrett, 2006; Hensher, 1994). Furthermore, as indicated in Section 2.3.2, the nested logit model will be helpful to measure a nested choice behaviour. Table 3.9 outlines the three choice patterns and their corresponding preference orderings and econometric estimation.

Table 3.9: Choice Patterns, Preference Orderings, and Econometric Estimation of the Two-Stage Choice Model of Accounting Modes

Choice Patterns	Preference Orderings	Econometric Estimation
Sequential Choice (Regime → Technique)	Lexicographic ordering	Sequential Logit Model
Sequential Choice (Technique → Regime)	Colexicographic ordering	NA
Nested/Simultaneous Choice	NA	Nested Logit Model

Based on the stated preference theory (see Section 2.4), this research will obtain UK and Taiwanese firms' perceived costs and benefits of adopting accounting modes by surveys and interviews (see Chapter 4). Following these adoption costs and benefits, companies' net and ratio utilities of implementing regimes and techniques will be calibrated. These utilities will aid the understanding of companies' decision-making in the two-stage choice model of financial reporting regimes and techniques, which is illustrated in this section. Using empirical data, this thesis aims to explain firms' choice patterns and their preference orderings, as well as to identify which econometric model might be useful to measure firms' accounting choices.

3.6 Summary and Discussion

This chapter reviews UK and Taiwanese accounting practices and discusses UK and Taiwanese firms' regime choices and technique choices. IFRS, UK GAAP, and FRSSE are major regimes in the UK. In Taiwan, there are two financial reporting regimes, IFRS and ROC GAAP. UK and Taiwan have several differences in the implementation of IFRS, such as the adoption timescale, the permission of voluntary adoptions and detailed requirements. This chapter also examines studies, which explore the consequences of adopting IFRS in the UK and Taiwan (see Table 3.3 and

Table 3.7), and shows the similarities between these two countries. Since current literature often focuses on a specific impact of IFRS adoption, this research, which calibrates companies' overall costs and benefits of using IFRS and analyses interview data, will make an important contribution to this field. Regarding technique choices, this thesis emphasises the techniques for valuing intangibles, treating development costs and valuing investments. In general, UK firms have more accounting choices than Taiwanese firms. Both countries face immediate changes in accounting regulations. For example, the New UK GAAP will be enforced in the UK in 2015. In addition, Taiwanese authority continues to amend the regulations of financial reporting and a new law will become effective from 2016. More complete comparative analysis of accounting choices and regulations between UK and Taiwan can be found in Chapter 9.

Following Chapter 2, this chapter further develops the two-stage choice model of financial reporting regimes and techniques. It elaborates the two-stage choice model of accounting modes under the accounting frameworks of the UK and Taiwan. The first stage contains regime choices (e.g., IFRS and UK GAAP). The second stage is the choice problem of technique combinations (e.g., technique for valuing intangibles and investments). This chapter also elaborates three decision-making processes in this two stage choice model. Firstly, a company might choose its regime before considering technique choices. This is a sequential choice, starting from stage one. It can be expressed by a lexicographic ordering and can be measured by a sequential logit model. Secondly, a firm might determine techniques before electing a regime. This decision-making process is sequential but is the exact opposite of the first one. This decision starts from stage two and moves on to stage one. In this situation, the

company follows a colexicographic preference ordering. Thirdly, a firm might choose its regime and techniques simultaneously. It considers all possible accounting choices, and does not make decisions in stages. This is a nested choice and can be measured by a nested logit model.

As mentioned in Chapter 2, the two-stage choice model aims to accommodate multiple accounting choices and investigate the relationship between regime choices and technique choices. Using empirical data, the results of this thesis should enhance our understanding of firms' choice in financial reporting. The next chapter will explain the methodology of this research, including how we capture companies' utilities of adopting financial reporting regimes and techniques. The quantitative and qualitative analysis of UK and Taiwanese firms' accounting choices is presented in Chapters 5 through 9.

Chapter 4 Methodology, Sampling Frame and Hypothesis Testing

4.1 Introduction

As discussed in Chapter 2, to improve the understanding of accounting choices, there are needs to consider several choices together and to enhance research instruments and theories in this area (Fields et al., 2001). Chapter 3 developed a two-stage choice model of financial reporting regimes and techniques, and provided a foundation that accommodated various choices at the same time. Following the concepts of the two-stage choice model established in Chapter 3, this thesis now aims to introduce a potential method of empirical implementation of this model, a stated preference approach as shown in Chapter 2, for the study of firms' accounting decisions.

This chapter explains the empirical methodology and the instrumentation design used in this research. It provides the basis for the quantitative testing and qualitative case study analysis utilised in the later chapters. By proposing a new empirical research tool, and integrating new survey and interview data into a common mode of analysis, this thesis aims to enhance our knowledge of how companies make decisions when facing various accounting choices.

This chapter is organised as follows: Firstly, Section 4.2 elaborates the methodology and the sampling frame of this thesis. Secondly, the design of instrumentation, including a questionnaire and a semi-structured interview template, is presented in Section 4.3. Thirdly, Section 4.4 explains how data was coded and establishes the basic hypotheses to be tested and investigated in this study. Finally, Section 4.5

summarises the key points of this chapter, as applied to empirical settings in the UK and Taiwan.

4.2 Methodology and Sampling Frame

Chapter 2 reviewed the relevant literature in accounting choices, and indicated the need for improving research instruments in this area (Fields et al., 2001; Schipper, 2010). Chapter 2 also concluded that stated preference theory might be helpful to comprehend companies' choice behaviour because this theory allows the investigator to capture firms' preferences towards accounting modes through carrying out a survey (Adamowicz et al., 1994; Reid & Smith, 2007a; Schipper, 2010). Hence, following Reid and Smith's research (2007a, 2007b) which applies a stated preference approach to investigate the adoption of the FRSSE, this thesis conducts a survey, in the UK and Taiwan, to obtain and to calibrate companies' utilities of various financial reporting options. In this work, these utilities depend on management's preferences, although financial reporting standards do have a wider impact on shareholders, regulators, and the entire economy (Gwilliam et al., 2005; Schipper, 2010). At the same time, this research explores the usefulness of stated preference theory in studying firms' accounting choices. The survey data was mainly gathered by an email questionnaire, with a complementary face-to-face administered questionnaire. The design of these questionnaires was based on the two-stage choice model of financial reporting regimes and techniques and it will be explained in detail in the next section (i.e., Section 4.3).

As mentioned in Chapter 2, accounting costs and benefits are important to understand accounting choices (Schipper, 2010). However, there is a general lack of

research in this area because it is difficult to measure accounting costs and benefits (Gwilliam et al., 2005; Meeks & Meeks, 2002). Therefore, this study further utilises cost-benefit analysis to examine whether companies' choices are consistent with the reported utilities using stated preference scales obtained from the collected data (Reid & Smith, 2007a). Scholars suggest more work to be done on measuring costs and benefits of adopting financial reporting modes, particularly the adoption costs and benefits of IFRS (Bruggemann et al., 2013; Daske, 2006; Schipper, 2010). This research aims to advance the literature in this field, in terms of research design and instrumentation, as well as findings.

In addition to the survey data, face-to-face interviews were conducted with companies in order to gain a deeper understanding of how companies make accounting decisions (Reid, 1993). The structure of the face-to-face interview schedule was similar to that of the questionnaire. However, the interview focused more on the rationale behind choices. Therefore, the interview was semi-structured and contained many open questions, with the intention to discover companies' major considerations when making decisions, and their decision-making processes when they face multiple accounting choices (see Chapter 7).

This study utilises quantitative and qualitative approaches to analyse the survey data and the interview data (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). In the quantitative analysis, nonparametric tests are used to investigate whether adopting IFRS is beneficial for firms, from managers' perspectives (see Chapter 5 and 8) (Cox & Stuart, 1955; Hollander et al., 2014, Chapter 1; Wilcoxon, 1945). The statistical results should have potential policy impact because the debate of whether countries should adopt IFRS is still ongoing, particularly in the US (Singleton-Green,

2015). Additionally, qualitative analysis, which can be developed into case studies, gives more insights into firms' accounting choices (see Chapter 6, 7 and 8) (Cooper & Morgan, 2008; Otley & Berry, 1994; Scapens, 1990).

In order to provide a rounded analysis, this thesis discusses both the UK and Taiwanese practices. Through conducting a comparative analysis, this research can provide more robust evidence in companies' accounting choices and suggest more fruitful developments for accounting policies. In total, five UK firms and 10 Taiwanese firms were interviewed. This study also generated questionnaire responses from 22 UK companies, and from 15 Taiwanese companies. The following paragraphs describe the process of data collection, and the data sources of UK and Taiwanese firms.

Before the main research commenced, a pilot survey was conducted, which helped the investigator to improve the research instrument and the appropriate mode of analysis. The survey and interviews carried out in the UK also provided a solid foundation for conducting the Taiwan research (e.g., in terms of instrument design, and obtaining access to the field using gatekeepers). The following table shows the timetable of the data collection.

Table 4.1: Timetable of the Data Collection

Instruments	Time period	Location	Study type
Questionnaire	May 2013-June 2013	UK	Pilot
Questionnaire	July 2013-May 2014	UK	Main study
Interview	March-May 2014	UK	Main study
Questionnaire	March-June 2014	Taiwan	Main study
Interview	May-June 2014	Taiwan	Main study

The initial financial reporting data and contact data of public UK firms were collected through the Datastream online database, and those of private UK firms were obtained from the Bloomberg and FAME databases. Generally, the sampling frame of the UK survey was defined by 1383 public UK firms in Datastream and 168 private UK firms in Bloomberg database. Twenty-one UK firms, which returned the completed questionnaire, were contacted for the follow-up interview, and three public firms of them agreed to participate in the interview. Moreover, to assist with the comparative analysis of UK public firms and UK private firms, the investigator used FAME database to seek large private firms in the University's region to increase firms' willingness to take part in the face-to-face interviews. Based on our experience, large private firms, which had more resources than small and medium sized private firms, presented higher prospects of assisting with this research. Additionally, since our university is located in Glasgow, we found that firms around this area were more willing to discuss with us, compared to firms in other regions. From the 50 local private firms which were contacted for the first time, two firms joined the interview and provided abundant information for this research. This approach seemed to raise the responding rate from 1.4% in survey case, to 4% in the face-to-face case. Appendix A shows the questionnaire used for the UK data collection. Two different types of pre-letters were used to approach UK companies for the interview: one for companies contacted before (see Appendix B); one for companies which had not been contacted (see Appendix C). A follow-up thank-you letter would be used when companies agreed to be interviewed (see Appendix D). The instrument of the semi-structure interview in the UK setting can be found in Appendix E.

The experience of data collection in the UK showed that it is difficult to obtain

access to data about how firms' make decisions in financial reports because this data is often confidential. In order to enhance the data collection in Taiwan, the researcher consulted experienced Taiwanese academics and carefully chose target firms to assure variety of firms. With the help of Taiwanese scholars, the study received 15 questionnaire responses and completed 10 face-to-face interviews in a short period of time. The financial reporting data and business operations information were mainly provided by the companies, with the supplementary data acquired from firms' annual reports. The instruments used to collect Taiwanese data can be found in Appendix F to Appendix I.

The sample used in this thesis is small but informative because the firms are fairly diversified in terms of industry, firm size, and ownership. The information acquired from the face-to-face interviews also supplied crucial internal knowledge to understand companies' choice behaviour in financial reports. Table 4.2 exhibits the basic firm information of the sample which gave good variety for the data analysis. The sample included private firms and public firms. It also contained large, medium and small sized companies. Additionally, the sampled firms were in various sectors, ranged from Heavy Manufactures, Light Manufactures, to Professional and Financial Services. It should be noted that although firms' responses are treated anonymously in the thesis, it is possible to acquire additional relevant data (e.g., from proprietary databases) to help the analysis in this research.

Table 4.2: Summary of the Sampled Firms

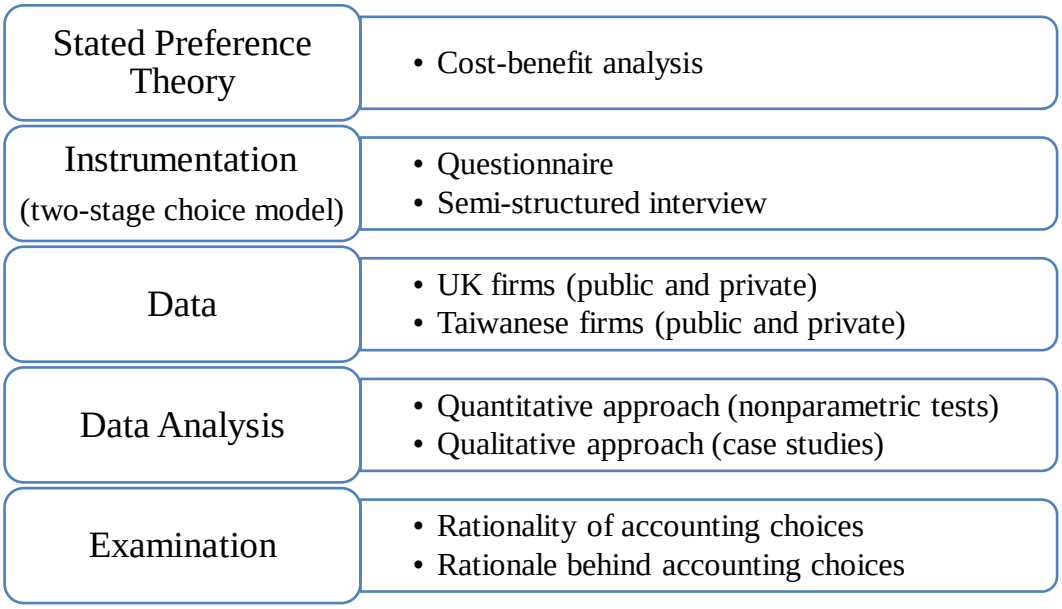
Country	Instrumentation	Ownership	Firm size	Industry
UK	22 Questionnaires	2 Private 20 Public	2 Small 6 Medium 14 Large	2 SIC 10-30 5 SIC 31-44 2 SIC 45-58 9 SIC 59-83 4 SIC 84-99
	5 Interviews	2 Private 3 Public	2 Medium 3 Large	3 SIC 45-58 1 SIC 59-83 1 SIC 84-99
Taiwan	15 Questionnaires	4 Private 11 Public	3 Small 3 Medium 9 Large	1 SIC 10-30 5 SIC 31-44 1 SIC 45-58 8 SIC 59-83
	10 Interviews	4 Private 6 Public	4 Small 1 Medium 5 Large	3 SIC 31-44 7 SIC 59-83

Note: SIC code and the corresponding sectors: SIC 10-30 (Heavy Manufacturing); SIC 31-44 (Light Manufacturing and Construction); SIC 45-58 (Wholesale and Retail Trades); SIC 59-83 (Professional and Financial Services); SIC 84-99 (Public, Private and Social Services).

To summarise, this section has explained the methodology used in this thesis. This research uses cost-benefit analysis, which was constructed on the basis of stated preference theory, to investigate the UK and Taiwanese firms' accounting choices (Reid & Smith, 2007a; Schipper, 2010). The instrumentation, including a questionnaire and a semi-structured interview, was a design schema of the two-stage choice model of financial reporting regimes and techniques. Both quantitative and qualitative research methods are used in this thesis (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). The questionnaire survey allowed us to examine the rationality of companies' accounting choices using nonparametric tests (a

quantitative method), which are suitable for the small sample (Hollander et al., 2014, Chapter 1). The data collected from interviews permitted us to investigate firms' rationale behind choices from a different perspective by conducting case studies (a qualitative approach). The entire methodology is presented as Figure 4.1.

Figure 4.1: The Presentation of Methodology



4.3 Design of Instrumentation

The design of the instrumentation, including the questionnaire and the semi-structured interview template, follows the sampling frame. Since our target firms are UK firms and Taiwanese firms, the questionnaire focused on the financial reporting regulations in the UK and in Taiwan. For example, the financial reporting regimes indicated in the instrumentation follow the UK and Taiwanese practices. The instrumentation also included important policy changes of the UK financial reporting standards in 2005 and in 2015, and the changes in accounting regulations in Taiwan in 2013 and in near future. The instrumentation, used to collect Taiwan data, was

almost the same as that for the UK sample. The complete English instrumentation was translated into Chinese version. However, the names of financial reporting regimes and the policy changes were modified to accord with the Taiwanese practice. Hence, during the face-to-face interviews, the follow-up questions about firms' reaction to accounting changes also depended on which country the firm is located in.

4.3.1 Design of Questionnaire

This section illustrates the design of the questionnaire. As indicated earlier in Chapter 2 and in this chapter, stated preference theory is a promising research tool in financial reporting (Reid & Smith, 2007a, 2007b; Schipper, 2010). However, few writers have been able to apply this theory to accounting studies (Gwilliam et al., 2005; Reid & Smith, 2007a, 2007b; Smith & Reid, 2008). To advance the research instruments in this field, this thesis applies stated preference theory to study firms' choice of financial reporting modes and uses primary data. The design of instrumentation builds on Reid and Smith's studies (2007a, 2007b) on financial reporting regimes of small firms. Their research discusses whether people adopt a certain financial reporting regime (viz., the FRSSE) using a stated preference method. This thesis extends their stated preference approach to discover how companies choose from amongst various techniques and regimes, involving IFRS, local GAAPs, and financial reporting standards for small entities. Therefore, our model advanced the binary choice problem to the multinomial choice problem. Our instrumentation focused on the two-stage choice model of financial reporting modes, and aims to measure firms' preferences and to explore firms' choosing process. The full questionnaires are presented in the appendix A (in the UK setting) and appendix F (in

the Taiwanese setting).

The electronic questionnaire contained four major sections: basic company information, choice of financial reporting regimes, choice of financial reporting techniques, and the interaction between the choice of regimes and the choice of techniques. Table 4.3 presents the structure of the instrumentation with further information.

Table 4.3: Structure of Questionnaire

Main Questionnaire Sections	**Explanation**
1. Basic Company Information	Firm size, firm age, financial data, sectors, and organisational structures.
2. Choice of Regimes	Firms' choices of financial reporting regimes, and their perceived costs and benefits of adopting specific regimes (including current choices, and choices in the future).
3. Choice of Techniques	Firms' choices of financial reporting techniques, and their perceived costs and benefits of using specific techniques (e.g., for intangibles, R&D, and investments).
4. Interaction between Regimes and Techniques	Explores how the choices of techniques and regimes influence each other.

The first section of the questionnaire (see top two boxes in Table 4.3) asked for basic company information, such as firm size, firm age, sectors, R&D expenditure, organisational structures, and the distribution of sales and purchases. This information allowed us to investigate whether firm specific characteristics influence

firms' choices of financial reporting. For instance, because of the inherent differences between large firms and small firms (e.g., in the resources which they have), large firms and small firms have different adoption costs and behave differently when preparing their financial reports (Graham et al., 2005; Reid & Smith, 2007a; Welsh & White, 1981). Graham et al. (2005) show that firms with various ages have different opinions on how to prepare financial statements and which aspects in the reports are more crucial. Furthermore, relevant research indicates that firms' industries and sectors can influence their financial reporting choices (Ahmed & Falk, 2006; Reid & Smith, 2007b). Also, Fekete, Matis, and Lukacs (2008) use the data of Hungary to examine mandatory IFRS adoption, and find that high-tech firms seem to adapt to the new regime better than firms in other sectors. Additionally, several literature points out that industries and sectors, which companies belong to, have an impact on how firms treat their R&D expenditure (Ahmed & Falk, 2006; Griffiths & Webster, 2010). One of major techniques, which this thesis aims to explore, is the method of treating R&D expenditure. Therefore, the first part of the questionnaire included the information regarding R&D expenditure.

In addition, Doyle, Ge, and McVay (2007) argue that firms' capability to manage the company using financial reports could be affected by organisational structures and firm age. Callao, Jarne, and Lainez (2007) also indicate that firms need to modify their organisational structures in order to adopt IFRS successfully. Hence, this research builds upon Bresnahan, Brynjolfsson, and Hitt's (2002) study to capture firms' organisational attributes using proxies.

Moreover, Cole, Breesch, and Branson (2009) point out that suppliers and customers often utilise financial statements, and might influence the way companies prepare the

statements. Archambault and Archambault (2009) display that the more countries depend on international markets, the more they are willing to adopt IFRS. In the firm level, Guerreiro, Rodrigues, and Craig (2012) indicate that export level of Portuguese firms influences how well prepared they are to adopt IFRS. Therefore, our instrumentation involves the information about the distribution of sales and purchases.

The second and the third sections of the questionnaire (see boxes in rows two and three of Table 4.3) investigated the sampled firms' choices of regimes and techniques, and sought to examine whether the choices made are beneficial, based on an analysis of perceived costs and benefits. Reid and Smith (2007a, 2007b) apply stated preference theory to study the adoption of the FRSSE, and find that the stated cost-benefit ratios influence firms' decisions on whether or not to adopt the FRSSE. Hence, this thesis aims to broaden the application of the stated preference approach (Adamowicz et al., 1994; Hensher, 1994; Schlapfer et al., 2008), by extending their binary choice problem to a more general multinomial choice model.

The second section of the questionnaire (see boxes in row two of Table 4.3) explored firms' choice of financial reporting regimes, and was set within the UK and Taiwan adoption framework as detailed in Chapter 3. For example, the English questionnaire contained the principal regimes in the UK, such as IFRS, UK GAAP, and FRSSE. IFRS and ROC GAAP were included in the Chinese questionnaire. Since there is still a dispute over mandatory IFRS adoption, this study also investigated whether adopting IFRS was beneficial for firms, and whether they would adopt IFRS if it were not compulsory (Bruggemann et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). Furthermore, second section of the questionnaire

considered major policy changes in both the UK and Taiwan and sought to compare and contrast firms' accounting choices at different time points. For instance, the UK plans to introduce the New UK GAAP in 2015 (ASB, 2012; ICAEW, 2012; PwC, 2013c). Taiwanese public firms started to adopt IFRS compulsorily from 2013 and 2015 onwards, depending on the types of ownership (TWSE, 2012a). In addition, Taiwanese authorities might allow the use of IFRS for SMEs in few years (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2012). These principal changes in financial reporting regulations were included in the instrumentation. The data permitted the investigation of whether the cost-benefit principle was applicable to both present and future circumstances, and provided more insights into accounting policies.

The third section of the questionnaire (see boxes in row three of Table 4.3) considered those choices of techniques which are the most widely discussed in the literature, such as the valuation of intangible properties, the treatment of R&D, and the valuation of investments (Barth & Clinch, 1998; Cazavan-Jeny et al., 2011; Lagrost, Marti, Dubois, & Quazzotti, 2010; Park & Park, 2006; Penman, 2007). The third section of the questionnaire also asked companies which aspect of financial reporting techniques, such as taxes treatment or revenues recognition, was more important for them. This information was used to further analyse firms' behaviour in the two-stage choice model of financial reporting modes.

There were two main types of questions used in the second and the third sections of the questionnaire (see boxes in rows two and three of Table 4.3) to discover firms' choices of financial reporting modes and to capture their preferences towards these accounting options (Gillham, 2000; Oppenheim, 1992). The first type of question

focused on firms' choices of regimes and techniques, including current and future choices. Table 4.4 shows how this type of question helped to acquire information of firms' technique choices in valuing intangibles. The question first asked about what options were available for firms to value intangibles and this gave an idea of firms' choice set. It further examined which method(s) firms actually used, and the relative importance of chosen techniques. There were parallel questions which explored technique choices in other aspects, such as valuing investments and treating development costs. There were also similar questions which help to obtain information about firms' regime choices.

Table 4.4: Choice of Financial Reporting Techniques in Valuing Intangibles

3.1.1.1 Which method(s) could you choose for valuing **intangibles**? (please circle)
Cost Approach | Market Approach
Income Approach | Other _____
Of method(s) circled in 3.1.1.1, which do you actually use for valuing **intangibles** and what is its/their importance? Circle those boxes that apply and then rank them in order of importance, putting 1, 2, etc. in the relevant boxes; where 1 is the most important.
□ Cost Approach □ Market Approach
□ Income Approach □ Other _____

Since this research took into account recent changes in financial reporting regulations, certain questions were used to investigate firms' expected regime choices. For instance, Table 4.5 shows a question helping to examine UK firms' regime choices from 2015, when the authority aims to introduce the New UK GAAP. This question asked firms to state the possibility for them to adopt various regimes from 2015.

Taiwanese firms also answered similar questions about their anticipated regime choices, such as the chance for them to implement IFRS for SMEs in the future.

Table 4.5: The Possibility to Choose a Financial Reporting Regime

2.2.1.2 What are the chances that you will adopt the following from 2015? (please circle)						
IFRS	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP-FRS101	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP-FRS102	N/A	Zero	Low	Medium	High	Extreme
FRSSE	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

The second type of question was designed to capture firms' costs and benefits of using a certain regime or technique. The costs and benefits were measured by a five point Likert Scale, and were coded using integers 1 to 5 (see Section 4.4 for the data coding). The costs and benefits were used to calibrate companies' utilities of adopting an accounting mode, and provided the foundation for cost-benefit analysis (see Section 4.4 for the calibration and the explanation for the cost-benefit analysis). This approach was based on Reid and Smith's research (2007a, 2007b), it aimed to examine whether companies' accounting choices are rational in terms of adoption costs and benefits. It should be noted that the costs and benefits discussed in this thesis are subjectively estimated by managers of sampled firms, and will vary across individuals and over time (Mises, 1998). Therefore, it is also difficult to link the level of costs and benefits to a monetary value. The example questions can be found in Table 4.6 and they were extracted from the questionnaire.

There were also parallel questions for exploring the costs and benefit of implementing other alternative regimes in the UK and in Taiwan, at the present and in the future. Similar question designs were used to investigate the costs and benefits of using a certain financial reporting technique.

Table 4.6: Ranking the Perceived Costs and Benefits of Financial Reporting Regimes

2.1.2 What are your perceived **costs** of adopting the following financial reporting regimes? (please circle)
IFRS N/A | Zero | Low | Medium | High | Extreme
Current UK GAAP N/A | Zero | Low | Medium | High | Extreme
2.1.3 What are your perceived **benefits** of adopting the following financial reporting regimes? (please circle)
IFRS N/A | Zero | Low | Medium | High | Extreme
Current UK GAAP N/A | Zero | Low | Medium | High | Extreme

The last section of the questionnaire (see the bottom two boxes of Table 4.3) studied the relationship between the choice of financial reporting regimes and the choice of financial reporting techniques (Fields et al., 2001). Its aim was to understand whether firms' choosing processes are staged or nested in the two-stage choice model (Cameron & Trivedi, 2008; Nagakura & Kobayashi, 2009; Van Ophem & Schram, 1997), and whether their decision-making processes can be more formally described by lexicographic and colexicographic orderings (Agrawal & Salinas, 1988; Castano & Castano, 2012; Colman & Stirk, 1999; Houy & Tadenuma, 2009). If a firm makes decisions simultaneously, it considers all available options, including techniques and regimes, at the same time. If a firm's decision-making process is staged, it might use a sequential procedure or a backward choosing process. If it makes choices

sequentially (i.e., regime choices are made without considering technique choices), its choice behaviour could be explained by the lexicographic ordering. On the contrary, if a firm determines the accounting modes backward (i.e., compare all available technique choices under each regime before making regime choices), it applies the colexicographic ordering. The following table presents the corresponding question in the instrumentation. The researcher studies the associated research literature in accounting choices, and none of it discusses this two-stage choice model in financial reporting standards. Hence, the questions here can be helpful to improve the understanding of accounting choices.

Table 4.7: Relationship between the Regime Choice and the Technique Choice

4.1 Which of the following are true for how you determine your financial reporting regimes and techniques? (please circle)

(a) I compare and contrast the choices of financial reporting techniques available under each regime. Then, I determine the financial reporting regime.

Never | Sometimes | Often | Very Often | Always

(b) I choose the financial reporting regime directly. Then, I determine the financial reporting techniques under this regime.

Never | Sometimes | Often | Very Often | Always

(c) None of the above. What I do is (please specify) _____

Never | Sometimes | Often | Very Often | Always

4.3.2 Design of Semi-Structured Interview

The construction of the semi-structured interview was based on the design of the questionnaire. There were three parts in the interview template, which were choices

of regimes, choices of techniques, and interaction between regimes and techniques (see Table 4.8). It can be seen that the components of the interview are the section 2, 3, 4 of the questionnaire (refer to table 4.3). Since firms' basic information was collected by the questionnaire, databases, or firms' annual reports, the section 1 of the questionnaire was not included in the interviews.

Table 4.8: Structure of Semi-Structured Interview

Main Interview Sections	Explanation
1. Choice of Regimes	Rationale underlying firms' regime choices, explanation for the ranking of adoption costs and benefits (involving current choices and future choices). Responses to the changes in accounting policies, the preparation during the transition period, and the impact of the regulation changes (if applicable).
2. Choice of Techniques	Rationale behind firms' technique choices, explanation for the level of adoption costs and benefits (e.g., for intangibles, R&D, and investments). Reasons why some aspects in the entire financial statements are more important.
3. Interaction between Regimes and Techniques	Details and attributes of the decision-making process in the two-stage choice model of regimes and techniques, and the reasoning for applying the staged/un-staged choice process.

Different from the questionnaire which explored firms' accounting choices and the

corresponding adoption costs and benefits, the interview emphasised firms' decision-making processes in the two-stage choice model, and their rationale underlying the decisions. For instance, the first and second sections of the interview asked firms why they choose a certain regime or technique, how they evaluate different regimes and techniques (particularly in terms of costs and benefits), and what major costs and benefits of utilising a regime or technique are. The interview also investigated the impact of crucial accounting policy changes, such as the introduction of New UK GAAP in the UK in 2015, and the implementation of IFRS in Taiwan from 2013 and 2015 onwards. Hence, the first section of the interview also discussed how companies transit to a new regime, such as IFRS, and how they reacted to the policy changes.

In order to discern the main factors influencing firms' accounting choices, the second part of the interview also asked firms to list most important aspects when preparing financial reports, and the reasons why these parts were important. The third section of the interview examines firms' decision-making processes of the two-stage choice model. It studied the interaction between regime choices and technique choices, and the characteristics of and the reasoning behind the choice process.

Furthermore, this thesis consulted Reid's research on small firms (1993), to develop the semi-structured interview. Semi-structured interview is a widely used approach in interviews, and is known to be helpful for discovering profound knowledge (Cohen, Krishnamoorthy, & Wright, 2002; Farneti & Guthrie, 2009; Lillis, 1999; Wengraf, 2001). The semi-structured interview conducted in this research outlined the principal questions around the research topics, and gave respondents more room to share their opinions. The subsequent questions relied on interviewees' answers. This

approach permitted the further investigation into firms' financial reporting choices. The complete interview instruments can be found in Appendix E (in the UK setting) and Appendix I (in the Taiwanese setting).

4.4 Data Coding and Hypotheses

Following the previous section which describes the design of instrumentation, this section illustrates how the data is coded and the hypotheses used in this research. There are four types of variables in this study. They are economic variables, attitudinal variables, dummy variables, and categories variables (see Table 4.9).

Table 4.9: Variable Types and Coding Methods

Variables Types	**Example**	**Coding**
economic variables	Employees Ownership (insider, institutional, and other) R&D expenditure	Positive integers (e.g., 120) Percentage (e.g., 30%) £s or TWD at 2013/2014 prices (e.g., 20,500)
attitudinal variables	Cost & Benefit Organisational structure (hierarchy for salaries; use of team to make decision)	1-2-3-4-5 (five point scale)
dummy variables	Sectors (six sectors; primary and secondary sector, or services sector)	Binary (0, 1)
categorical variables	Relative importance of techniques	Positive integers (e.g., 1, 2, 3)

Different ways were used to code different types of data. Firstly, economic variables were coded by the value or the percentage, such as the number of employees and the ownership proportion. Financial data, such as total assets and R&D expenditure, also

belonged to this category, and was coded by its value in pounds or in Taiwan dollar (TWD). Secondly, attitudinal variables were measured by a five point Likert Scale and were coded using natural numbers from 1 to 5. These variables included perceived costs and benefits, expected costs and benefits, and organisational structure. For dummy variables such as industrial or services sectors, 0 and 1 were utilised to code them. Positive integers were also used to code categories variables, such as the relative importance of financial reporting techniques.

Regarding the hypotheses, this thesis applied a stated preference approach to investigate firms' accounting choices. At the same time, it examined the usefulness of stated preference theory in studying financial reporting choices. Furthermore, the statistical tests and case studies aimed to explore whether companies' accounting decisions are consistent with the costs and benefits, including regime and technique decisions. That is, whether firms' choices are rational.

Additionally, compulsory IFRS adoption is part of main issues in accounting and finance literature (Bruggemann et al., 2013; Callao et al., 2007; Schipper, 2005), and UK and Taiwanese publicly listed firms are required to adopt IFRS from 2005 and 2013 or 2015 onwards, respectively. Many scholars discuss the costs and benefits of adopting IFRS and suggest further investigation in this area. Hence, this study establishes the following null hypothesis (H_0) and alternative hypothesis (H_1), to examine whether the IFRS adoption is beneficial.

H_0: Adopting IFRS is beneficial.

H_1: Adopting IFRS is not beneficial.

Since most firms in our sample were public, they must adopt IFRS (i.e., they have a

tied choice). This research will contribute to the studies of mandatory IFRS adoption, by providing new firm evidence and supplying a potential research tools to measure adoption costs and benefits. These hypotheses are also used to explore whether the voluntary IFRS adoption (i.e., when a firm has a free choice) is beneficial, and whether the results are different from the compulsory adoption.

As mentioned earlier in this section and in previous section, a five point Likert Scale was used to measure firms' costs and benefits of implementing a financial reporting regime or a technique (Oppenheim, 1992; Gillham, 2000; Reid & Smith, 2007a). The perceived levels of costs and benefits were coded using positive integers 1 to 5. For instance, if the respondent of a firm stated that there was no cost to adopt IFRS, its cost was coded as 1. If a regime or a technique was not applicable to a firm, this situation was coded as 0.

From firms' stated costs and benefits of implementing a certain regime or technique, firms' net utility and ratio utility can be calibrated (Reid & Smith, 2007a, 2007b; Schwab & Lusztig, 1969; Watts & Zimmerman, 1978), which help to judge whether adopting a financial reporting mode is beneficial to a firm. This study defined the "net utility" as the perceived benefit (B) minus the perceived cost (C) of adopting a certain mode (i.e., B-C). The "ratio utility" was defined as the perceived benefit over the perceived cost of adopting a certain mode (i.e., B/C). Since the costs and benefits of adopting a financial reporting mode were coded using positive integers {1, 2, 3, 4, 5}, the implied range of net utility measures is {-4, -3, -2, -1, 0, 1, 2, 3, 4} and the implied range of ratio utility measures is {[0.2, 0.8], 1, [1.25, 5]}, where the squared brackets denote closed intervals.

The following paragraph illustrates how the calibrations of net utility and ratio utility were used in this thesis. If a firm's accounting choices are rational and it has free choices, it should adopt the financial reporting mode which generates the better net utility and ratio utility than other accounting forms. Furthermore, if an adoption is beneficial, it should bring additional benefits to firms. Specifically, it should lead to a positive net utility (i.e., $B - C > 0$) or a ratio utility greater than unity (i.e., $B / C > 1$). Since the range of net utility measures is {-4, -3, -2, -1, 0, 1, 2, 3, 4}, a positive net utility implies that the net utility is equal to or greater than one. The case of ratio utility is not obvious, but it is carefully confirmed that the adoption is beneficial when $(B/C) \in [1.25, 5]$; it is equivocal when $(B/C) = 1$; and it is unbeneficial when $(B/C) \in [0.2, 0.8]$. These measures found the basis of the hypothesis testing in Chapter 5 and Chapter 8.

4.5 Summary

In conclusion, this chapter first explains the methodology of this study. We have shown that the research is based on the stated preference theory and it applies cost-benefit analysis to examine whether firms' choices are reasonable, under the framework of UK and Taiwanese practices. The sample contains UK firms and Taiwanese firms, and is diversified as regards industry, ownerships, and firm size. It also provides a sound foundation for the comparative analysis.

Moreover, this section elaborates the design of the instrumentation, which follows the scheme of a two-stage choice model of financial reporting regimes and techniques. This research was then developed using questionnaires and semi-structured interviews to discover how companies behaved when faced multiple

accounting choices, and what their motivations were behind these decisions. The questionnaire focused on capturing firms' choices and their adoption costs and benefits, and the interview emphasised the rationale behind these choices. With the quantitative and qualitative data, this research can provide more comprehensive analysis by conducting nonparametric tests and case studies. In the end of this chapter, how to code the collected data and the major hypotheses in this thesis are explained, particularly how firms' net utility and ratio utility of adopting a regime or technique are calibrated and applied in this thesis.

Chapter 5 Empirical Evidence on How Costs and Benefits Influence Companies' Choices in Financial Reports: Nonparametric Tests and Case Studies (UK Firms)

5.1 Introduction

Following the methodology illustrated in the previous chapter, this chapter examines the key hypotheses using UK data. This chapter conducts statistical tests to investigate whether adopting IFRS is beneficial, particularly for publicly listed firms. It also explores whether companies' accounting forms, involving regime and technique choices, are associated with adoption costs and benefits. Furthermore, this chapter aims to show how a stated preference approach can help to capture firms' preferences over financial reporting forms.

The structure of this chapter is as follows: Firstly, Section 5.2 discusses financial reporting regimes and uses nonparametric tests to scrutinise whether it is beneficial for firms to adopt IFRS, concentrating on compulsory IFRS adoption. Secondly, Section 5.3 studies how firms elect financial reporting techniques, with the focus on techniques for valuing intangibles, treating development costs, and evaluating investments. Finally, Section 5.4 concludes the findings of this chapter.

5.2 Financial Reporting Regime: IFRS

This section discusses an important financial reporting regime, IFRS. To fill a gap in literature (Bruggemann et al., 2013; Daske, 2006), this section conducts

nonparametric tests (Cox & Stuart, 1955; DeFusco, Johnson, & Zorn, 1990; Wilcoxon, 1945) to examine sampled UK firms' net utilities and ratio utilities of adopting IFRS. The nonparametric tests are known to be useful and appropriate for the small sample (Hollander et al., 2014, Chapter 1). The adoption utilities of companies were calibrated from collected data on the basis of stated preference theory (see Section 4.4 for the calibration) (Adamowicz et al., 1994; Schipper, 2010; Smith & Reid, 2008). This section seeks to discover whether adopting IFRS is beneficial for firms, from managers' perspectives (Bruggemann et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). Most firms in our UK sample are publicly listed firms which are required to adopt IFRS for their consolidated accounts; hence, this study will contribute to the ongoing discussion of mandatory IFRS adoption (Barth et al., 2012; Jermakowicz & Gornik-Tomaszewski, 2006; Kvaal & Nobes, 2010; Schipper, 2005; Singleton-Green, 2015).

The nonparametric tests make minimal assumptions about the population of firms, and are often more suitable for analysing small data sets than other tests that assume a certain distribution of the population (Alam, 2001; Hollander et al. 2014, Chapter 1; Whitley & Ball, 2002). Since the sample size in this research was small, nonparametric tests were used. In the UK sample of 22 firms, there were 18 firms which reported their perceived costs and benefits of adopting IFRS. Amongst the 18 firms, two firms were private with free regime choices and 16 firms were public with tied regime choices. Generally speaking, if a firm is rational, it should elect a financial reporting regime which yields net benefits. Nevertheless, when the regime choice of a firm is constrained, such as the situation of compulsory IFRS adoption in the UK, the company might adopt a regime which is disadvantageous. In order to

address this issue, the key hypotheses indicated in Chapter 4 (see below) were tested through firms' net utilities and ratio utilities using nonparametric tests.

H_0: Adopting IFRS is beneficial.

H_1: Adopting IFRS is not beneficial.

5.2.1 Net Utility of Adopting IFRS

Firstly, UK firms' net utilities of adopting IFRS, defined as the adoption benefits of IFRS minus the adoption costs of IFRS (Schwab & Lusztig, 1969; Watts & Zimmerman, 1978), are calculated and exhibited in Table 5.1. The first column of Table 5.1 shows the sampled firms' net utilities of adopting IFRS, and the range of these net utilities is from -3 to +2. The second column presents absolute frequencies of each net utility, and the third column indicates relative frequencies expressed by percentages. The mode occurred at zero net utility and there were slightly more firms with negative net utilities than firms with positive net utilities.

Table 5.1: Frequencies of UK Firms' Net Utilities (Benefits – Costs) of Adopting IFRS

Net Utility	Frequencies	Percent	Cumulative Percent
-3	1	5.56	5.56
-2	3	16.67	22.22
-1	3	16.67	38.89
0	6	33.33	72.22
1	4	22.22	94.44
2	1	5.56	100.00
Total	18	100.00	

In addition, a nonparametric test, the Wilcoxon signed-rank test (Wilcoxon, 1945), is

used to precisely investigate whether it is beneficial to implement IFRS for UK firms from managers' viewpoints. Since adopting IFRS is beneficial if it can generate a positive net utility, which is held for both the mandatory and voluntary adoption, the null and alternative hypotheses used here are as follows:

H_{0a}: Adopting IFRS leads to a positive net utility (i.e., net utility $>0 \rightarrow$ net utility ≥ 1).

H_{1a}: Adopting IFRS does not lead to a positive net utility (i.e., net utility $\leq 0 \rightarrow$ net utility <1).

The hypotheses were developed based on the range of net utilities {-4, -3, -2, -1, 0, 1, 2, 3, 4} mentioned in the previous chapter. Since all net utilities are integers (no fractions), if an adoption results in a positive net utility, the net utility must be equal to or greater than unity. Moreover, if the adoption is not beneficial, it will lead to a zero or negative net utility. This situation can be treated as the net utility is less than unity for the statistical convenience (because no net utility will be between zero and unity). The result of the Wilcoxon signed-rank test is presented in Table 5.2. The signs of this test are shown in column 1 of Table 5.2, and the relevant net utilities (also refer to column 1 of Table 5.1) can be found in column 2 of Table 5.2.

Table 5.2: Wilcoxon Signed-Rank Test of the Net Utility (All UK Firms).

Sign	Net Utilities (B-C)	Observations	Sum Ranks	Expected
+	B-C ∈ {2, 3, 4}	1	8	80.5
-	B-C ∈ {-4, -3, -2, -1, 0}	13	153	80.5
0	B-C ∈ {1}	4	10	10
All		18	171	171

unadjusted variance	527.25	H_{0a}: net utility ≥ 1
adjustment for ties	-8.00	H_{1a}: net utility <1
adjustment for zeros	-7.50	z = -3.205
adjusted variance	511.75	prob. = 0.0007

Table 5.2 shows that the *p* value was 0.0007. The finding suggested that there was strong evidence, at the 1% significance level, for rejecting the null hypothesis that adopting IFRS led to a positive net utility. This result was not sensitive to the choice of test itself. A Cox and Stuart test was conducted and a *p* value of 0.0009 was obtained. Therefore, the null hypothesis (that the median of the net utility of adopting IFRS is ≥ 1) was rejected at the 1% significance level.

We further examined the sample of UK public firms (i.e., excluding UK private firms), which have to adopt IFRS compulsorily for consolidated accounts, using the same statistical tests as above. There were 16 publicly listed firms in our UK sample stating the adoption costs and benefits of IFRS. Table 5.3 presents the result of the Wilcoxon Signed-Rank Test of the net utility using UK public firm data. Since the *p* value was 0.0019, the null hypothesis that adopting IFRS brought a positive utility was rejected, at the 1% significance level. The signs of this test and the corresponding range of net utilities are shown in column 1 and 2 of Table 5.3, respectively.

Table 5.3: Wilcoxon Signed-Rank Test of the Net Utility (UK Publicly Listed Firms).

Sign	Net Utilities (B-C)	Observations	Sum Ranks	Expected
+	B-C ∈ {2, 3, 4}	1	8	63
-	B-C ∈ {-4, -3, -2, -1, 0}	11	118	63
0	B-C ∈ {1}	4	10	10
All		16	136	136

unadjusted variance	374.00	H_{0a}: net utility ≥ 1
adjustment for ties	-7.50	H_{1a}: net utility <1
adjustment for zeros	-7.50	z = -2.903
adjusted variance	359.00	prob. = 0.0019

A Cox and Stuart test also led to a similar result, where *p* value was 0.0032. This implied that there was enough evidence to reject the null hypothesis, which assumed that the median of sampled UK public firms' net utility of adopting IFRS was greater than or equal to unity, at the 1% significance level.

The statistical results for all UK firms and for only UK public firms from our available sample were very similar. Overall, the results implied that from management's perspectives adopting IFRS did not yield a positive net utility and sampled firms did not perceive this adoption as beneficial. Since rational choosers would only adopt IFRS if there were a positive net utility, UK public companies might not adopt IFRS if it were not compulsory. The results are consistent with the finding of Jermakowicz and Gornik-Tomaszewski's (2006) research, in which European listed companies were studied. The findings suggest that a tied choice (e.g., mandatory IFRS adoption) might result in companies adopting an accounting mode which is not beneficial for them.

5.2.2 Ratio Utility of Adopting IFRS

The previous section emphasised firms' net utilities of adopting IFRS. This section discusses an alternative utility measure, ratio utility which is defined as the adoption benefits over the adoption costs (Schwab & Lusztig, 1969; Smith & Reid, 2008). Table 5.4 exhibits the frequencies of UK firms' ratio utilities of adopting IFRS. As with the distribution of UK firms' net utilities, the equivocal case (i.e., B/C=1) was the most frequent (33.33%) and the unbeneficial side (B/C < 1) seemed to have more weight than the beneficial side (B/C > 1).

Table 5.4: Frequencies of UK Firms' Ratio Utility (Benefits ÷ Costs) of Adopting IFRS.

Ratio Utility	Frequencies	Percent	Cumulative Percent
0.25	1	5.56	5.56
0.5	4	22.22	27.78
0.75	2	11.11	38.89
1	6	33.33	72.22
1.33	2	11.11	83.33
1.5	2	11.11	94.44
3	1	5.56	100.00
Total	18	100.00	

As in the previous section, the Wilcoxon signed-rank test (Wilcoxon, 1945) was used to test whether adopting IFRS is beneficial from managers' viewpoints. The Cox and Stuart test was also conducted to confirm the robustness of results. This section examines the sample of all UK firms, and the sample of UK publicly listed firms in sequence. Since adopting IFRS is beneficial if the adoption can generate a ratio utility which is greater than unity, the null and alternative hypotheses for the

Wilconxon signed-rank test are specified as follows:

H_{0b}: Adopting IFRS leads to a ratio utility greater than unity (i.e., ratio utility > 1 → ratio utility ≥ 1.25).

H_{1b}: Adopting IFRS does not lead to a ratio utility greater than unity (i.e., ratio utility ≤ 1 → ratio utility <1.25).

As mentioned in Chapter 4, the range of ratio utilities is {[0.2, 0.8], 1, [1.25, 5]}, where closed intervals are indicated by square brackets. If the adoption is beneficial, the ratio utility should be greater than unity. In this case, the ratio utility must be greater than or equal to 1.25. If the adoption is not beneficial, it will lead to a ratio utility less than or equal to unity, which can be treated as less than 1.25 for the statistical convenience (because no ratio utility will fall between unity and 1.25). The result of the Wilcoxon signed-rank test for ratio test can be found in Table 5.5. The signs of this test and the relevant ratio utilities (also refer to column 1 of Table 5.4) can be found in column 1 and 2 of Table 5.5, respectively.

Table 5.5: Wilcoxon Signed-Rank Test of the Ratio Utility (All UK Firms).

Sign	Ratio Utilities (B/C)	Observations	Sum Ranks	Expected
+	B/C ∈ (1.25, 5]	5	34	85.5
-	B/C ∈ {[0.2, 0.8], 1}	13	137	85.5
0	B/C ∈ {1.25}	0	0	0
All		18	171	171

unadjusted variance	527.25	H_{0b}: ratio utility ≥ 1.25
adjustment for ties	-12.00	H_{1b}: ratio utility <1.25
adjustment for zeros	0.00	z = -2.269
adjusted variance	515.25	prob. = 0.0117

As indicated in Table 5.5, positive signs were far lower than expected and negative signs were far higher than expected. It turned out that *p* value was 0.0117 and this result rejected the null hypothesis that adopting IFRS led to a ratio utility greater than unity, at approximately the 1% significance level. A Cox and Stuart test showed that the above finding was robust, as it generated a *p* value of 0.0481 and rejected the null hypothesis (that the median of the ratio utility of adopting IFRS $\geq$ 1.25) at the 5% significance level. Again, the results suggested that sampled UK firms did not regard the IFRS adoption as beneficial in terms of the ratio utility.

Again, we tested sampled UK public firms' (i.e., not involving UK private firms) ratio utility using a Wilcoxon Signed-Rank Test, and a Cox and Stuart test. Both tests rejected the corresponding null hypothesis, at approximately the 5% and 10% significance level, respectively[4]. The finding also implies that, from management's point of view, sampled UK public firms generally did not perceive net benefits from adopting IFRS. However, the evidence here is weaker, compared to the statistical results of all UK firms. It should be noted that the two UK private firms in the questionnaire survey had the ratio utility less than one. These results suggest that using IFRS might be more disadvantageous to private firms, as the standard is designed for public firms (IASB, 2012).

To summarise, the hypothesis tests of both the net and ratio utility calculations led to the same conclusion. Generally, managers of the sampled UK firms, including public and private firms, did not perceive using IFRS as beneficial. These results match those observed in earlier studies (Fox et al., 2013; Jermakowicz &

[4] The Wilcoxon Signed-Rank Test leads to a *p* value of 0.0295. Furthermore, the Cox and Stuart test generates a *p* value of 0.1051.

Gornik-Tomaszewski, 2006). A rational individual should only implement an accounting form which brings additional benefits (i.e., when the net utility > 0 or the ratio utility > 1). Although adoption IFRS for consolidated accounts is compulsory for UK publicly listed firms, some of them might be reluctant to do so, and would not adopt IFRS if it were not mandatory. The findings also show that a tied accounting choice might not be the best choice for companies. It should also be noted that a disadvantage perceived on the individual firm level does not imply the necessary disadvantage for the whole society (Gwilliam et al., 2005; Schipper, 2010).

5.3 Choice of Financial Reporting Techniques

This section discusses UK firms' choices of financial reporting techniques, applying the concept of the ratio utility and net utility used in the previous section. As indicated in Chapter 3, there are various technique choices and this thesis emphasises techniques for valuing intangibles, treating development costs and valuing investments. In the following paragraphs, we analyse several cases to examine whether companies' choice behaviours in financial reporting techniques, particularly in the above three aspects, are consistent with costs and benefit analysis.

5.3.1 Techniques for Valuing Intangibles: Company A, Company B and Company C

How UK firms determine techniques for valuing intangibles is explored here. There are three major techniques for valuing intangibles: the cost approach, income approach and market approach (Matsuura, 2004; Park & Park, 2006). Company A, Company B and Company C can freely choose from amongst the above three techniques when valuing intangibles. Table 5.6 presents these three companies' net

utilities and ratio utilities of adopting different techniques for valuing intangibles.

Table 5.6: UK Companies' Net Utilities and Ratio Utilities of Using Various Techniques for Valuing Intangibles

Techniques for Valuing Intangibles		Adoption Cost	Adoption Benefit	Ratio Utility (Benefit ÷ Cost)	Net Utility (Benefit - Cost)
Company A	Cost Approach*	Zero (1)	Medium (3)	3	2
	Income Approach	Low (2)	Low (2)	1	0
	Market Approach	Medium (3)	Low (2)	0.67	-1
Company B	Cost Approach*	Low (2)	Medium (3)	1.5	1
	Income Approach	Medium (3)	Medium (3)	1	0
	Market Approach	Medium (3)	Medium (3)	1	0
Company C	Cost Approach	Zero (1)	Zero (1)	1	0
	Income Approach*	Medium (3)	Low (2)	0.67	-1
	Market Approach	Medium (3)	Low (2)	0.67	-1

Note: Companies' choices are indicated by *

Firstly, Company A is a public manufacturing firm which specialises in pharmaceutical products. The company chooses the cost approach to value intangibles. Since the cost approach generates better net and ratio utilities than the income approach and the market approach do, Company A's choice here is reasonable in terms of costs and benefits. In addition, the cost approach brings a positive net utility and a ratio utility greater than unity. In this situation, adopting the

cost approach is beneficial relatively and in absolute terms. Moreover, the respondent of Company A mentioned that the company uses the cost approach for consistency purposes. He added that the cost approach is closely related to the company's business operation, which is acquiring products with a long life and stable sales. This (viz., the cost approach matches the company's business better) might explain why the cost approach has lower adoption costs and higher adoption benefits than the other approaches.

Secondly, Company B is a public delivery company. It perceives the adoption benefits of the cost approach, the income approach and the market approach as medium. Furthermore, it stated that the cost approach is with low-level adoption costs. Nevertheless, the other two approaches require medium-level adoption costs. From the three available techniques for valuing intangibles, Company B adopts the cost approach, where costs/values of intangibles are measured using labour costs and customer data. Like the situation of Company A, the cost approach yields a positive net utility and a ratio utility greater than unity for Company B, and no other approach brings higher net or ratio utilities. Hence, Company B's choice here is rational from the aspect of cost-benefit analysis.

Lastly, Company C is a public large enterprise which provides manufacturing services. The respondent of Company C indicated that "we use [the] income approach in evaluating intangibles assets on acquisition of subsidiaries." However, according to the figures shown in Table 5.6, this decision is by no means straightforward. The income approach and the market approach result in the same level of adoption costs and benefits, and thus the same net utility and ratio utility. The cost approach seems a better choice, since it leads to higher net and ratio utilities

than the other two methods. Nevertheless, the cost approach has zero adoption benefit which is lower than that of the income approach and the market approach. The zero (gross) benefit of adopting the cost approach might be the reason why Company C turns to adopt the income approach.

To conclude, the results indicate that companies' behaviours in choosing techniques for valuing intangibles are generally consistent with cost-benefit analysis. These findings corroborate the ideas of Reid and Smith (2007a, 2007b), who suggested that accounting decisions are associated with relevant costs and benefits. The findings of this section also imply that sometimes companies may refuse to use a technique with zero adoption benefit, even though this technique generates better net and ratio utilities. Furthermore, the results in Table 5.6 suggest that the cost approach has lower adoption costs, compared to the income and market approach. All three companies discussed in this section (i.e., Section 5.3.1) stated that the cost to use the cost approach to value intangible assets is zero or low.

5.3.2 Techniques for Treating Development Costs: Company A, Company B and Company D

This section investigates how UK companies treat development costs. Although firms have to follow financial reporting standards when reporting their financial results, they still need to make judgements by themselves about whether development costs meet the criteria to be recognised as assets or should be recognised as expenses (Luft & Shields, 2001; Sahut et al., 2011; Tsoligkas & Tsalavoutas, 2011). Three UK firms are discussed in this section, and their net utilities and ratio utilities of treating development costs as assets and expenses are summarised in Table 5.7.

Table 5.7: UK Companies' Net Utilities and Ratio Utilities of Using Various Techniques for Treating Development Costs

Techniques for Treating Development Costs		Adoption Cost	Adoption Benefit	Ratio Utility (Benefit ÷ Cost)	Net Utility (Benefit - Cost)
Company A	Treat as expenses*	Zero (1)	Low (2)	2	1
	Treat as assets*	Zero (1)	Low (2)	2	1
Company B	Treat as expenses	Low (2)	Medium (3)	1.5	1
	Treat as assets*	Low (2)	Medium (3)	1.5	1
Company D	Treat as expenses*	Zero (1)	Low (2)	2	1
	Treat as assets	Low (2)	Medium (3)	1.5	1

Note: Companies' choices are indicated by *

First of all, the respondent of Company A pointed out that the company sometimes recognises development costs as expenses and sometimes recognises them as assets. The first two rows of Table 5.7 show that these two techniques have the same level of adoption costs and benefits, and hence generate the same net utility and ratio utility. Since these two techniques are arguably equivocal and bring positive net utilities and ratio utilities greater than unity, Company A's decision here can be regarded as rational. The interviewee of Company A justified their choice behaviour by explaining that the importance of these two methods will vary, and depends on the size of R&D projects. On the promise of complying with regulations, the company will try to capitalise development costs as much as possible, if a project involves a large amount of money (say several million pounds). This treatment is good for the

income statement. In contrast, if the size of the project is small, the company tend to treat the development costs as expenses.

Additionally, for Company B, the two methods to recognise development costs both lead to a low level of adoption costs, and a medium level of adoption benefits (see the middle two rows of Table 5.7). As with the case of Company A, Company B perceived the same net and ratio utilities of these two techniques. Different from Company A which applies both of the techniques, Company B chooses to recognise development costs as assets. The respondent of Company B elaborated that the company treats R&D as an asset creating process; therefore, it recognises development costs as assets. It can be noted from the examples of Company A and Company B that when companies face techniques with the same rank of adoption costs and benefits (and hence the same net and ratio utility), they might elect the technique which is more suitable for the situation.

Finally, Company D is a private motor retailer and service provider. The respondent of Company D stated that the company recognises development costs as expenses. He said the costs are calculated by working hours and labour costs, and this procedure is simple. As indicated in the last two rows of Table 5.7, recognising development costs as expenses is with zero (1) adoption cost and low (2) adoption benefits; recognising them as assets leads to low (2) adoption costs and medium (3) adoption benefits. Although both methods have the same net utility (1), the expensing approach generates a higher ratio utility. The figures suggest that Company D makes a reasonable decision by treating development costs as expenses, regarding the ratio utility. The zero adoption cost of the expensing method, which contributes to the better net utility, is in accordance with the company's statement

that this approach is easy. This case illustrates that when techniques have the same net utility, the ratio utility might be crucial for firms to choose techniques rationally.

5.3.3 Techniques for Valuing Investments: Company A, Company D and Company E

This section focuses on UK firms' choices over techniques for valuing investments. Under IFRS and UK GAAP, there are basically three ways to value investments: the market approach, fair value approach, and cost approach (Carroll et al., 2003; Ernst & Young, 2011a; Khurana & Kim, 2003; PwC, 2013b). Three UK cases are illustrated to explain firms' choice behaviours when valuing investments. Table 5.8 exhibits these three firms' utilities of implementing the above three approaches to value investments.

Firstly, Company A, a manufacturer, uses the cost approach to value investments. The interviewee of this company indicated that this choice is driven by their business operations. It can be observed from the first three rows of Table 5.8 that, for this company, the cost approach yields a positive net utility (1) and a ratio utility greater than unity (2), and the other two approaches lead to negative net utilities (-1) and ratio utilities of 0.67. Recalling the discussion in Section 5.3.1, Company A also uses the cost approach to value intangibles because this technique is highly associated with their daily business. Therefore, it is rational for Company A to elect the cost approach for valuing investments because this technique suits the company better and hence brings better net and ratio utilities than other techniques.

Table 5.8: UK Companies' Net Utilities and Ratio Utilities of Using Various Techniques for Valuing Investments

Techniques for Valuing Investments		Adoption Cost	Adoption Benefit	Ratio Utility (Benefit ÷ Cost)	Net Utility (Benefit - Cost)
Company A	Market Value	Medium (3)	Low (2)	0.67	-1
	Fair Value	Medium (3)	Low (2)	0.67	-1
	Cost Approach*	Zero (1)	Low (2)	2	1
Company D	Market Value*	Medium (3)	Medium (3)	1	0
	Fair Value	Medium (3)	Medium (3)	1	0
	Cost Approach*	Zero (1)	Medium (3)	3	2
Company E	Market Value	High (4)	High (4)	1	0
	Fair Value	High (4)	Medium (3)	0.75	-1
	Cost Approach*	Low (2)	Low (2)	1	0

Note: Companies' choices are indicated by *

Secondly, the respondent of Company D said that they use the cost approach to value the majority of their investments. As presented in the middle three rows of Table 5.8, the cost approach is the only technique which brings a positive net utility and a ratio utility greater than unity to Company D. Therefore, the firm's choice here is consistent with cost-benefit analysis. Nevertheless, the interviewee of Company D pointed out that the market approach is also used to value investment properties (i.e., sites). This is the only approach which Company D can use to value investment properties when reporting under UK GAAP. Although based on the manager's perceptions the market approach does not bring a positive net utility, this company

does not have other options. Since Company D is a private firm, it can choose whether to adopt IFRS or not. The result shows that Company D's regime choice influences its choice set of techniques.

The third case is Company E, a publishing service firm. It is a public firm. The manager of this company replied that the cost approach is applied to value investments. Based on the stated adoption costs and benefits of this company (see the last three rows of Table 5.8), the market approach and the cost approach both have zero net utility and ratio utilities of unity. Arguably, these two approaches are equivocal and both of them are better options than the fair value approach in terms of adoption utilities. The remaining question is why Company E chooses the cost approach, rather than the market approach. It should be pointed out that these two approaches have different levels of adoption costs and benefits, although they do have the same ratio and net utilities. The cost approach comes with low (2) adoption costs and benefits; the market approach yields high (4) adoption costs and benefits. The high adoption costs of the market approach might be one factor which pushes Company E away. In addition, this case shows that sometimes firms have to choose a relatively better technique, if no technique brings a positive net utility or a ratio utility greater than unity.

As the situation mentioned in Section 5.3.1, the figures exhibited in Table 5.8 suggest that the adoption costs of the cost approach is low, in absolute and relative terms. Company A, Company D and Company E all perceived zero or low adoption costs from using the cost approach to value investments.

5.4 Summary and Discussion

This chapter applied cost-benefit analysis to examine whether companies' current accounting modes, including regimes and techniques, are rational. It showed the usefulness of stated preference theory to capture firms' perceived costs and benefits of adopting financial reporting regimes and techniques, and this allows the further investigation into the firms' choice behaviours in accounting.

This chapter first used statistical tests, to scrutinise the net and ratio utilities of adopting IFRS. The results from the Wilcoxon signed-rank tests and the Cox and Stuart tests suggest that, from management's perspectives, the sampled firms do not perceive additional benefits from reporting under IFRS. The fact holds for both sampled UK public and private firms. These results are consistent with those of other studies (Fox et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). It is also noted that the evidence from the sample of public firms is weaker, but still significant, compared to that from the sample of all firms. This might be because the design of IFRS is mainly for public companies (IASB, 2012). Furthermore, since a rational chooser should only adopt a regime which generates a positive net utility or a ratio utility greater than unity, some UK public firms might not adopt IFRS if it were not compulsory. The results also imply that a tied accounting choice might make companies apply an accounting mode which is not beneficial. This chapter showed the overall costs and benefits of adopting IFRS and provided new evidence with respect to IFRS adoption (Bruggemann et al., 2013; Daske, 2006).

The other emphasis of this chapter is firms' technique choices, particularly about techniques for valuing intangibles and investments, and treating development costs.

The cases extracted from five UK companies were discussed in this chapter. Generally, the results showed that firms' choices over financial reporting techniques are consistent with the stated adoption costs and benefits, which in this research are based on managers' perceptions. As far as we know, this is the first study to calibrate costs and benefits of using financial reporting techniques. This is also the first time that the relationship between technique choices and their adoption utilities have been carefully examined. The findings observed in this chapter accord with Reid and Smith's (2007a, 2007b) studies, which confirmed the association between the FRSSE adoption choices and the relevant adoption costs and benefits.

Moreover, this current study found that where there is no technique with a positive net utility or a ratio utility greater than unity, firms tend to choose the technique with relatively better utilities. The examples discussed in this chapter also suggest that the cost approach is with lower adoption costs, compared to other methods. Additionally, these cases demonstrate different situations when sampled firms make technique choices, and they can be summarised as Table 5.9.

There are basically five situations, which are observed from the cases. First of all, if various techniques have different net and ratio utilities, companies could find the better choice simply by net utilities or ratio utilities (see the first row of Table 5.9). The ways Company A chose techniques for valuing intangibles and investments belong to this category. In these cases, the technique with the highest net utility is the one generating the highest ratio utility. Secondly, when net utilities of using different techniques are the same but ratio utilities are different, firms could judge techniques by ratio utilities (see boxes in the second row of Table 5.9). For instance, treating development costs as assets or expenses bring the same net utilities for Company D.

In the end, the company chooses to recognise development costs as expenses and this leads to a higher ratio utility.

Table 5.9: Summary of UK Firms' Technique Choices

Situations		Examples
(1)	Net utilities (B-C) are different; ratio utilities (B/C) are different: Judge by either (B-C) or (B/C)	Company A (intangibles; investments) Company B (intangibles) Company D (investments)
(2)	Net utilities (B-C) are the same; ratio utilities (B/C) are different: Judge by (B/C)	Company D (development costs)
(3)	Net utilities (B-C) are the same; ratio utilities (B/C) are the same: If the levels of adoption costs/benefits are different, judge by the level	Company E (investments)
(4)	Net utilities (B-C) are the same; ratio utilities (B/C) are the same: If the levels of adoption costs/benefits are the same, judge by the fitness	Company A (development costs) Company B (development costs)
(5)	Do not fully apply cost-benefit analysis: to avoid incurring zero adoption benefits or facing a tied choice	Company C (intangibles) Company D (investments)

Thirdly, when both net utilities and ratio utilities of adopting various techniques are the same, firms might make a decision by the level of adoption costs and benefits when the levels across techniques are different (see situation three in Table 5.9). This can be seen when Company E chooses techniques for valuing investments. The market approach and the cost approach both yield the zero net utility and the ratio utility of unity; however, Company E elects the cost approach with low adoption costs and benefits, rather than the market approach with high adoption costs and benefits. By doing so, Company E could avoid incurring high adoption costs.

Fourthly, if available techniques have the same level of adoption costs and benefits, and hence the same net and ratio utilities, companies will need to judge them by their fitness (see boxes in the fourth row of Table 5.9). For example, Company A's treatment of development costs depends on the size of R&D projects, and Company B treats development costs as assets since it regards R&D as a process to create assets.

The above four situations show that firms generally follow a rational cost-benefit analysis, given free technique choices. However, there are two cases that companies choose techniques with lower utilities (see situation five in Table 5.9). When considering techniques for valuing intangibles, Company C rejects the cost approach with relatively better utilities but zero (gross) adoption benefit. In addition, Company D often values investments using the cost approach which has better net and ratio utilities. Nevertheless, the company adopts the market approach to value a specific type of investment, sites, because it does not have other technique options. These two exceptions demonstrate that sampled companies might not follow cost-benefit analysis when they attempt to avoid incurring zero adoption benefit or when they face a tied choice. It should also be borne in mind that this thesis investigates the costs and benefits measured by managers, rather than all accounting costs and benefits.

To summarise, the conclusion drawn from the nonparametric tests is that, from management's point of view, sampled companies rarely perceive net benefits from adopting IFRS. In order to gain a deeper understanding of the choice of adopting IFRS, the next chapter (Chapter 6) will use case studies to discuss the compulsory IFRS adoption in the UK, and its impact on firms' regime decisions when companies

can choose regimes freely. Furthermore, the cases of firms' choices over techniques imply that cost-benefit analysis often helps to explain firm's accounting decisions. In this chapter, techniques and regimes are treated separately. To learn more about companies' accounting choices, Chapter 7 considers these two types of choices together, and explores their relationships through analysing UK cases.

Chapter 6 Empirical Evidence on Regime Choices: UK Illustrative Case Studies

6.1 Introduction

The previous chapter applied nonparametric test to examine how firms' behaviour in choosing regimes and techniques could be illuminated by net utilities and ratio utilities, which were derived from stated costs and benefits. Based on this concept, this chapter uses case studies to explore the rationale of companies behind accounting choices. It aims to investigate whether cost-benefit analysis and stated preference theory can help to understand firms' regime choices for different types of accounts. This chapter will examine the impact of IFRS adoption on companies' other accounting choices (i.e., the regime choice for individual accounts). The relationship between companies' regime choices for their consolidated accounts and those for their individual accounts will also be studied in this chapter. Through mixed research methods, this thesis would provide a more complete picture of companies' accounting choices (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009).

Furthermore, this chapter uses interview data to discover firms' main consideration when making accounting choices and their decision-making processes, which can enhance our understanding of companies' choice behaviour in financial reports. Seven cases were analysed in this chapter, including one UK private firm and six UK publicly listed firms (see Table 6.1).

Table 6.1: UK Companies in the Case Study Sample - Regime Choices

Sections	Companies	Net Utilities of Adopting IFRS
Section 6.2	One Private Company D	negative net utility
Section 6.3	Four Public Companies F, B, G, and H	zero net utility
Section 6.4	One Public Company A	positive net utility
Section 6.5	One Public Company I	negative net utility

As studied in section 3.2.1, publicly listed UK companies have tied choices and must adopt IFRS for their consolidated accounts. How these firms respond to compulsory IFRS adoption, what they do during the transition process, and how this compulsory adoption influences their regime choices for their individual accounts are also discussed in the following. Section 6.3 to Section 6.5 will provide a comprehensive analysis of these issues by studying the cases of public firms with zero, positive, and negative utilities of adopting IFRS. The investigation will contribute to the accounting practice because whether firms should compulsorily adopt IFRS is widely debated in many countries, including the US (Singleton-Green, 2015).

Regarding private firms, which have free choices for consolidated accounts and individual accounts, this chapter emphasises the key factors which influence private firms' behaviour when making decisions of regimes for different accounts, and whether the rationale behind regime choices differs from that of public firms. The case study of a private firm will be presented in Section 6.2.

6.2 Private Company D: negative net utility of adopting IFRS

First of all, this section investigates how a private firm with free choice determines its financial reporting regimes for the consolidated accounts and the individual accounts. Additionally, it is discussed in this section that whether compulsory adoption of IFRS for listed companies has any impact on this private firm.

Company D is a large private enterprise which was founded around 60 years ago in the UK. It is a parent company of a corporate group and has around 9000 employees. It belongs to the motor industry, and provides services related to vehicles, including car retail, repair and travel insurance. It focuses entirely on the UK market and 100% of its sales were generated in the UK. It gives high autonomy to individuals for decision-making (in the sense of the delegated authority to make their own decisions) and it very frequently uses teams to make decisions. The company has moderate hierarchy in organisational structure, which echoes the medium level of hierarchy in salary distribution. The high autonomy allowed for individual might therefore be explained by the 100% insider ownership (Ferrell & Skinner, 1988), in the sense that there is a reduced need to exercise authority through hierarchy in such contexts when a team-based discussion mode is available.

Since it is a private firm, it can choose to adopt UK GAAP or IFRS for consolidated accounts and the individual accounts. Moreover, some of its subsidiaries are very small and are entitled to adopt the FRSSE. In the end, Company D decided to use UK GAAP for all its accounts. The main reason is that they have used UK GAAP for

a long period, and there is no additional benefit and no reason to use IFRS or FRSSE. The results suggest that companies tend to maintain the status quo if they do not perceive large benefits from changing their regimes (Messier et al., 2014). Furthermore, the company thinks that IFRS does not fit in with its daily operations.

Since its principal competitors are listed companies, which are subject to mandatory IFRS adoption since 2005, Company D did consider whether it should adopt IFRS voluntarily to enhance the comparability with other companies. Nevertheless, the interviewee mentioned that there is no pressure for the firm to adopt IFRS because it is a private company. He further explained the main reasons why Company D continues to use UK GAAP. Firstly, the respondent stated that "There is comfort to keep using UK GAAP because it is easier to explain [the financial reports] to shareholders. If [the company] changes to IFRS, the complexity will increase." Since the company is a family-run business, stakeholders may not completely understand the financial reports if the regime is changed. The result shows that Company D focuses heavily on its current shareholders when making accounting choices. This might be because it is a private company whose financial reports are mainly for internal control rather than attracting more investors. The finding suggests that the nature of its ownership (i.e., 100% insider ownership) might influence the choice outcome.

Secondly, Company D looked at the techniques under IFRS and found it was not suitable to adopt IFRS, compared to use UK GAAP. Under IFRS, companies have to decompose the overall valuation for intangibles into individual components (e.g., patents, trademarks, and customer lists). It also requires a significant amount of information, such as how often customers come back, to comply with IFRS.

Unfortunately, the customer database is designed for contacts by Company D, not for valuations as used under IFRS. As a consequence, Company D is inclined not to value individual elements of intangibles but rather to bind them all into one goodwill figure. In addition, Company D will buy other companies to improve the stability of its supply chain, and it prefers the treatment of acquisition under UK GAAP. This echoes that the respondent ranked the treatment of business combination as the second most important aspect of the financial reports. The above showed that IFRS does not suit Company D in several aspects. Therefore, the company chose not to adopt IFRS.

When being asked to explain the general decision-making process in accounting, the interviewee indicated that "We will evaluate the inconvenience [, such as additional costs and time], and the benefits when facing a new regime." The company normally measures the costs and benefits subjectively, and it will consider the available techniques within a regime when making regime choices. If it is necessary, the company will carry out a conversion exercise, to examine the details of a new financial reporting regime. The interviewee also mentioned that directors and shareholders like to see high profits, and this fact has some impact on the preparation of financial reports. This statement is in accordance with the questionnaire response that recognition of revenues is the most important aspect when preparing financial reports. From this and previous paragraphs, it was obviously to find that the present shareholders and the suitability of techniques under IFRS are key considerations of Company D when it decides whether to transit from UK GAAP to IFRS. The finding shows that this firm's (private) ownership and business operations are influential in its accounting choices.

The relationship between regime choices for Company D's consolidated accounts and those for its individual accounts is now going to be investigated further. The respondent of Company D said that there is no big difference for treating consolidated accounts and individual accounts. This is probably because it is a private company which is not like public companies and does not need to attract external investors through consolidated accounts. The result again suggests that Company D's private ownership affects its attitudes towards financial reporting. He also pointed out that there is no incentive to use the FRSSE for their subsidiaries accounts. They aim to have the consistency across the whole group; hence, they use UK GAAP for all types of accounts.

The following paragraphs demonstrate how the cost-benefit analysis discussed in Chapter 5 can help to explain Company D's financial reporting regime choice. Table 6.2 presents Company D's stated costs and benefits of adopting IFRS, UK GAAP, and FRSSE. These costs and benefits are based on management's perceptions. For the consolidated accounts and parent's individual accounts, Company D could choose adopting IFRS or UK GAAP. The adoption benefit of IFRS and that of UK GAAP were the same, and both were low. Nonetheless, adopting IFRS yielded higher costs, and resulted in a worse ratio utility (0.5) and a worse net utility (-2). Although adopting UK GAAP also led to a negative net utility (-1), it was better than adopting IFRS. Under these circumstances, it is understandable that Company D adopted UK GAAP for its consolidated accounts and its parent's individual accounts.

Table 6.2: Company D's Perceived Costs and Benefits of Adopting Regime

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Present	IFRS	High (4)	Low (2)	0.5	-2
	Current UK GAAP*	Medium (3)	Low (2)	0.67	-1
	FRSSE	Medium (3)	Low (2)	0.67	-1

Note: * denotes choice for all accounts made by Company D

For some of the subsidiaries accounts, Company D could choose IFRS, UK GAAP or FRSSE. From Table 6.2, it is clear that adopting IFRS was worse than adopting UK GAAP or adopting FRSSE in terms of net utility and ratio utility. It is reasonable that Company D did not adopt IFRS for the subsidiaries accounts, from the perspective of cost-benefit analysis. Thus, the regime choice for Company D's subsidiary accounts was reduced to the choice between UK GAAP and FRSSE. UK GAAP and FRSSE had the same level of adoption cost (medium) and adoption benefits (low), and therefore generated the same net utility and ratio utility. In this situation, Company D chose to adopt UK GAAP for the subsidiaries' accounts. The principal reason is that Company D wants the consistency in financial reports across the whole group. Since the FRSSE is only applicable to some of Company D's subsidiaries, it is not applicable to the company's consolidated accounts and the parent's individual accounts. Even though, from the manager's perspectives, Company D does not experience a positive net utility of adopting UK GAAP for its consolidated accounts and its parent's individual accounts, it understands that adopting the FRSSE which had the same level of costs and benefits as adopting UK GAAP will not bring additional benefits. Hence, Company D chose to adopt UK GAAP for all of its

accounts, mainly for consistency purposes. Table 6.3 summarises Company D's choice of financial reporting regime for all accounts.

Table 6.3: Company D's Regime Choice for Different Types of Accounts

Regimes / Choice / Accounts	IFRS	UK GAAP	FRSSE
Consolidated accounts	✓	✓*	✗
Parent's individual accounts	✓	✓*	✗
Subsidiaries' individual accounts	✓	✓*	✓

Note: * denotes the regime choice made by Company D

This case of Company D shows that the firm will consider the adoption costs and benefits when making the regime choice, and stated preference theory could be used to measure the preferences for financial reporting regimes. However, sometimes companies can only choose the financial reporting regime which is relatively better than other regimes, when all regimes result in a negative net utility of adoption. The regime choice for the consolidated accounts will also influence the regime choice for the individual accounts. The consistency of financial reports plays an important role in the decision-making when companies face the choice problem that regimes lead to the same adoption costs and benefits (Boojihawon, Dimitratos, & Young, 2007; Yazdifar, Zaman, Tsamenyi, & Askarany, 2008). The compatibility between business operations and financial reporting regimes is also very crucial. Because of its private ownership, Company D pays close attention to the impact on current shareholders when making accounting decisions. This suggests that its ownership is influential in accounting choices.

6.3 Public Companies F, B, G and H: zero net utility of adopting IFRS

Section 6.2 discussed a private firm's regime choice for consolidated accounts and that for individual accounts. The following sections will focus on public firms which can only adopt IFRS for their consolidated accounts, but have free regime choices for their individual accounts. We aim to explore how public companies choose their regimes for various accounts, and whether they behave differently from private firms.

This section studies four public firms, Company F, B, G and H, with a zero net utility of adopting IFRS. Public firms with a positive net utility or a negative net utility of adopting IFRS will be investigated later in this chapter.

6.3.1 Public Company F: zero net utility of adopting IFRS

Company F is a UK company listed on AIM. It lies within the sector of public, private and social services (SIC 84-99). It provides solutions related to properties, such as the design of health centres, the funding and the construction management. It was founded in the early 1990s. It is a medium-sized firm and has around 50-80 employees. Its major market is the UK and all of its sales and costs occurred in the UK. It does not have R&D expenditure because it is a service company. It has a wide shareholder base, including insiders, institutional investors and other investors. As regards organisational structure, Company F permits moderate authority in individual decision-making, and high authority in team decision-making. It has a medium level of hierarchy in salary allocation, which matches its balanced organisational structure.

Company F is a parent company, and it has to prepare consolidated accounts, parent's individual accounts, and subsidiaries' individual accounts. Since it became an AIM listed firm from 2007, it started to use IFRS compulsorily for the consolidated accounts from then on. For its individual accounts, it could choose between IFRS and UK GAAP. In this situation, Company F mandatorily adopted IFRS for the consolidated accounts, and voluntarily applied UK GAAP for the individual accounts, including individual accounts of parent company and those of subsidiaries. Company F's regime choices are presented in Table 6.4.

Table 6.4: Company F's Regime Choice for Different Types of Accounts

Regimes Choice / Accounts	IFRS	UK GAAP	FRSSE
Consolidated accounts	✓*	×	×
Parent's individual accounts	✓	✓*	×
Subsidiaries' individual accounts	✓	✓*	×

Note: * denotes the regime choice made by Company F

The respondent of Company F indicated that they do not see any benefits in changing to IFRS. This is similar to the situation of Company D; however, the difference is that Company F could not choose its financial reporting regime for the consolidated accounts freely. The interviewee in Company F explained that there will be additional costs, such as transition costs and audits fees, if the company changes the regime. Hence, when facing a new regime, the company will examine whether changing the financial reporting regime will bring large benefits. He felt that all accounting regulations are converging, and there is no big difference across various regimes. This implies that IFRS will not bring large benefits. Thus, Company F

continued to use UK GAAP for individual accounts, considering the costs and benefits. These findings match those observed in earlier studies of accounting choices (Cuijpers & Buijink, 2005).

The respondent of Company F said that the key aspects to investigate benefits of changing regimes are the treatment of valuing intangibles, and the ways to recognise revenues. For Company F, revenues and intangibles accounts for a considerable amount of money. These two aspects are also subjective, which requires the judgement of management. The company needs to establish its own policy to recognise revenues and value intangibles, to make sure the estimates are consistent, understandable, and reasonable. In particular, the numbers should be perceived by stakeholders as reasonable. Hence, these two aspects will influence the transparency and the compliance of financial reports, and the results of financial reports might change a great deal under a new regime because of these two aspects. Additionally, he mentioned that the company will also examine whether there is a reduced disclosure of the new financial reporting regime. As he explained, the reduced disclosure means that preparing financial statements becomes easier and faster, which implies lower costs.

In Company F, weighing costs and benefits is based on previous experiences and done subjectively. Although Company F will consider the techniques within various regimes when it has regime choice, it will not study them in detail if it does not see the large benefits of changing. This decision-making process is very similar to Company D's. Moreover, both Company D and Company F focus on the ease and simplicity in preparing financial reports. Nevertheless, Company D seems to focus more on the impact on current shareholders and the coherence between its business

practices and financial reporting regime. Company F emphasises more the results of financial reports. The reasons for the difference might be Company D is a very large private enterprise, whose financial reports are mainly for internal use. The complexity will largely increase if the accounting standards do not match Company D's daily operations. In addition, since Company F is a public listed firm which is responsible for a wider base of investors, it is sensible that Company F cares about the results of financial reports. The results suggest that the types of ownership will influence companies' major considerations in making accounting decisions

Regarding the opinions toward different types of accounts, the interviewee expressed that people focus more on consolidated accounts and few investors will read individual financial statements. Compared to consolidated accounts, individual accounts are not important. Therefore, he said that consolidated financial statements should be very accurate. However, parent's accounts are only with minimum disclosure, so the company prefers to use the easier and faster way to prepare it. This statement is consistent with the company's previous argument that it likes the benefits from reduced disclosure. Since UK GAAP is relatively simpler than IFRS, Company F keeps using UK GAAP for the parent's individual accounts. Company F's attitudes towards individual accounts and consolidated accounts are different from Company D's (i.e., consolidated and individual accounts are equally important). This might result from the inherent difference between public companies and private companies. This again shows that the ownership structure will affect how companies view financial reports, and therefore might have an impact on their accounting choices.

The respondent of Company F also mentioned that they look for the consistency

across the whole group. Hence, they also use UK GAAP for subsidiaries' individual accounts. He indicated that if they change the regime of parent's accounts in the future, they will also change the regime of subsidiaries' accounts, for the consistency. This result shows the importance of consistency in financial reporting (Boojihawon et al., 2007; Yazdifar et al., 2008).

It is very interesting to discuss how the compulsory IFRS adoption for consolidated accounts influences Company F's regime choice for individual accounts. The interviewee said that because the company did not see benefits of adopting IFRS for consolidated accounts, it decided not to adopt IFRS for individual accounts. He added that during the transition period audit costs increased. Furthermore, the company needed considerable preparation for changing the regime and had to redo all the notes, which were both time consuming and labour consuming. Although adopting IFRS might improve the transparency of financial reports, it is very costly to adopt IFRS. Even though the company looks for the consistency across various accounts, it still does not use IFRS for the individual accounts. As a medium-sized firm with 50-80 employees, Company F has limited labour. Its relatively small firm size might make adopting IFRS more costly (Jones & Higgins, 2006; Schiebel, 2008), and hence influence its decisions.

As in the case study of Company D, it is investigated below that how the stated costs and benefits, based on the manager's perceptions, help to illustrate the impact of compulsory IFRS adoption on Company F's regime choice for individual accounts. Table 6.5 exhibits Company F's perceived costs and benefit of adopting IFRS. For Company F, the adoption costs and adoption benefits of IFRS were both medium, and adopting IFRS led to a zero net utility. This is in accordance with the

interviewee's statement that the company did not experience additional benefits of adopting IFRS for consolidated accounts, and hence it did not choose IFRS as the financial reporting regime for individual accounts.

Table 6.5: Company F's Perceived Costs and Benefits of Adopting Regime

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Present	IFRS	Medium (3)	Medium (3)	1	0

The case of Company F proves again that a stated preference approach can be used to capture the company's preferences and help to explain its choice of financial reporting regimes. Like the situation in Company D, Company F's regime for consolidated accounts also affects its regime choice for individual accounts. Since Company F does not receive additional benefits from adopting IFRS mandatorily for consolidated accounts, from management's point of view, it prefers to use other financial reporting regime when it has a free regime choice for individual accounts (Cuijpers & Buijink, 2005). Furthermore, the respondent of Company F mentioned the importance of consistency in accounting, which is also a crucial aspect for Company D's decision-making process. In order to be consistent with the parent's accounts, subsidiaries' individual accounts of Company F also follow UK GAAP. Although Company F aims to have the consistency, it prefers not to use the same regime for all of its accounts if the transition cost outweighs the benefit of consistency (Hail, Leuz, & Wysocki, 2010). Therefore, Company F does not adopt IFRS for its individual accounts, even though it has adopted IFRS compulsorily for consolidated accounts.

6.3.2 Public Company B: zero net utility of adopting IFRS

Company B is a mail delivery company based in the UK. It is a large public enterprise which was founded in the 1990s. It operates in the professional and financial services (SIC 59-83) sector. Its R&D expenditure was minimal, given the nature of its main business. Its sales effort completely emphasised the UK market. The respondent of Company B added that all of its sales and costs occurred in the UK, for all "accounting intents and purposes." In terms of organisational structure, this firm permits high authority in individual decision-making, and allows moderate authority in team decision-making. Salary determination is highly hierarchical, and this is reflected in the organisational structure. The use of strong control by hierarchy in this way is a common mode of operation for a firm as large as Company B (Stein, 2002; Zenger & Hesterly, 1997).

Since Company B is a listed company, it must adopt IFRS for consolidated accounts from 2005 onwards. For individual accounts, it could choose IFRS or UK GAAP. When facing compulsory adoption of IFRS, Company B chose to adopt IFRS for all of its accounts from 2004, including consolidated accounts and individual accounts. Table 6.6 presents Company B's choice of financial reporting regimes.

Table 6.6: Company B's Regime Choice for Different Types of Accounts

Regimes / Choice / Accounts	IFRS	UK GAAP	FRSSE
Consolidated accounts	✓*	×	×
Parent's individual accounts	✓*	✓	×
Subsidiaries' individual accounts	✓*	✓	×

Note: * denotes the regime choice made by Company B

The interviewee explained that "We deliberately choose IFRS for every account because it is simple to do so." For Company B, it is easier to use IFRS for all accounts, following compulsory adoption of IFRS. Additionally, the respondent of Company B indicated that using the same regime for all accounts helps the comparability and consistency for the whole group. Although he recognised UK GAAP is simpler than IFRS, the company chose to use IFRS for all its accounts to have the consistency across the whole group. Furthermore, the interviewee of Company B pointed out adopting IFRS for all accounts can improve the comparability across companies. Since Company B is a public firm which needs to attracts public investors, this is important for the company to have the same comparison basis in financial reports as its competitors. The result suggests that the ownership of Company B might influence its accounting choices.

The interviewee mentioned that they did not weigh relative costs and benefits of adoption consciously because they had decided to use IFRS for the whole group for consistency purposes, when facing the mandatory IFRS adoption for the consolidated accounts. It shows that the consistency within the corporate group is very significant for Company B to make accounting choices, at least from the manager's perspectives (Boojihawon et al., 2007; Yazdifar et al., 2008). This situation is similar to that in Company D and Company F whose respondents both indicated the significance of consistency when making regime decision.

How Company B transits from UK GAAP to IFRS is now going to be investigated further. The interviewee mentioned that before adopting IFRS, the company ran a big project, which took one year and involved 10 to 15 people. They checked the difference between IFRS and UK GAAP, and explored what they would be required

to do and what resources and information they would need to use IFRS. Moreover, Company B always puts the financial reporting team, management accounting team, external accounting and auditing team together in the same place. These teams meet weekly, and they will present their ideas to the board. The company has experts in various aspects in the board. It is good for communication and execution. After making the accounting decision, the company will notify all divisions of the whole group about how and what to do in the future. The above decision-making process reflects Company B's highly hierarchical structure (in the sense that there are several levels in the organisation and activities are conducted by various specialised teams), which might have an impact on how this firm determines its accounting modes.

In terms of the opinions for consolidated accounts and individual accounts, the respondent feels that few people look at the subsidiary accounts in great depth. Therefore, the efforts of Company B are mainly for the group accounts, not for subsidiaries' accounts. His opinion about consolidated accounts and individual accounts is very similar to the respondent of Company F's. Both of them think consolidated accounts are more important than individual accounts, and their thoughts are very different from the interviewee of Company D who thinks that there is no difference in treating different accounts. Again, Company F and Company B are public companies but Company D is a private company. This may cause the difference in their attitudes towards consolidated accounts and individual accounts. The result again shows that the nature of ownership (i.e., private or public) will affect companies' opinions on financial reporting.

Regarding the relationship between the regime choice for consolidated accounts and the regime choice for individual accounts, the interviewee said that mandatory IFRS

adoption for consolidated accounts did influence their regime choices for individual accounts. The company adopted IFRS for all its accounts for consistency purposes. By doing so, all people in the group will know the basis and have the same basis to prepare financial reports, he added.

As with the previous cases, whether costs and benefits can be used to justify Company B's regime choices is studied in the following paragraphs. Based on its manager's opinions, Table 6.7 displays Company B's perceived adoption costs and benefits of IFRS and UK GAAP. The table presents that adopting UK GAAP and adopting IFRS both yielded a zero net utility and a unity ratio utility. Nonetheless, the adoption costs and adoption benefits of UK GAAP were both low. The costs and benefits of adopting IFRS were both medium. As mentioned earlier in this case study, the respondent of Company B said it is simpler to use UK GAAP, and adopting IFRS allows the company to have consistency within the group. It might be the reasons why UK GAAP had lower adoption costs, and adopting IFRS generated higher adoption benefits. The case of Company B again proves the stated preference theory can be applied to understand corporations' costs and benefits of using certain financial reporting mode.

When Company B did not perceive additional net benefits from adopting IFRS for consolidated accounts, it might want to adopt other regimes when it has free choices. However, for the individual accounts, it could only choose between UK GAAP and IFRS, which had the same net utility (0). In this situation, Company B adopted IFRS voluntarily for individual accounts, to achieve the goal of consistency and to have higher gross adoption benefits.

Table 6.7: Company B's Perceived Costs and Benefits of Adopting Regime

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Present	IFRS*	Medium (3)	Medium (3)	1	0
	Current UK GAAP	Low (2)	Low (2)	1	0

Note: * denotes choice for all accounts made by Company B

Company B's regime choice for individual accounts was very different from Company F's choice. It is worthy of further study to understand why Company F and Company B behaved differently in making the regime choice for individual accounts. Both Company F and Company B had a zero net utility of adopting IFRS. They were both publicly listed companies and needed to adopt IFRS compulsorily for consolidated accounts. For the individual accounts, they both had the free regime choice. Company F chose to continuously use UK GAAP for individual accounts, whereas Company B transited to IFRS for individual accounts voluntarily.

They were founded around the same time, a difference of only two years. The major difference between these two firms is firm size. Company F is a medium-sized firm with less than 100 employees. Company B is a large enterprise which has more than 2000 employees. Large firms normally have more resources than smaller firms (Jones & Higgins, 2006). Scholars also argue that it might be more costly for smaller firms to adopt IFRS (Jones & Higgins, 2006; Schiebel, 2008). Moreover, the respondent of Company B mentioned that they chose to adopt IFRS for individual accounts in order to have the consistency within the group. It shows the company was very eager to achieve the goal of consistency. Although both Company F and

Company B did not experience a positive net utility of adopting IFRS for consolidated accounts, Company B chose to adopt IFRS voluntarily for individual accounts probably because of the larger significance of consistency within the company and the relatively lower adoption costs, compared to Company F. The result, from the cases explored, implies that firm size might influence companies' choices in financial reporting (Jones & Higgins, 2006; Schiebel, 2008).

6.3.3 Comparative Discussion-More Public Companies G and H: zero net utility of adopting IFRS

When facing the zero net utility of compulsory IFRS adoption, Company F and Company B behaved very differently in the regime choice for individual accounts. The main factor resulted in this difference might be the firm size. In order to further understand how companies make the regime choice for individual accounts when facing the zero net utility of mandatorily adopting IFRS, another two cases of public listed companies are introduced below. Both Company G and Company H are large enterprises with more than 2000 employees like Company B. They both perceived the zero net utility of adopting IFRS.

Company G is a manufacturing company in the UK. It is a large public firm which belongs to the sector of heavy manufacturing (SIC 10-30). It was founded more than 100 years ago. It has around an 8% annual growth rate of sales in its most recent year of reporting. It spends almost £1 billion in R&D which shows the importance of innovation and intellectual property for this manufacturing company. Its markets are very diverse, with the local and UK market, the European market, and the rest of the world being almost equally important to it. Regarding organisational structure, Company G allows moderate authority in both individual and team-based

decision-making. Salaries are highly incentivised, and the organisational structure is highly hierarchical. Such structures are common for a large firm like Company B (Stein, 2002; Zenger & Hesterly, 1997).

The respondent for Company G stated that they use "IFRS for consolidated group accounts. … UK GAAP for all UK subsidiary accounts." Furthermore, it could be noted from the annual reports that Company G also uses UK GAAP for its parent's individual accounts.

Table 6.8 exhibits that all the perceived costs and benefits of adopting IFRS and UK GAAP were rated as low. IFRS and current UK GAAP both yielded a zero net utility and a ratio utility of unity. When Company G compulsorily adopted IFRS and faced a free regime choice for its individual accounts, it chose to use UK GAAP voluntarily even though both regimes generated the same perceived net utility (zero) and had the same levels of perceived costs and benefits (low).

Table 6.8: Company G's Perceived Costs and Benefits of Adopting Regime

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Present	IFRS	Low (2)	Low (2)	1	0
	Current UK GAAP*	Low (2)	Low (2)	1	0

Note: * denotes choice for individual accounts of Company G

This situation is similar to the case of Company F. This suggests that if compulsory adoption of IFRS does not bring additional benefits, the unbeneficial compulsory adoption might in fact make firms tend to choose another regime (i.e., UK GAAP in

these cases) when they have free choices (Cuijpers & Buijink, 2005). The same situation could be seen again in another case of Company H.

Company H is a UK consulting firm which was founded around 150 years ago. It is a large company which employs around 4000 people. It lies within the professional and financial services sector (SIC 59-83). It provides consulting services for properties, transport utilities, and energy. The company is a worldwide firm and has many branches across the world. A quarter of its sales were generated in the UK, 8% came from the other European countries, and 67% from the rest of the world. The latest annual growth rate of sales is 7%. It permits moderate authority to both individual decision-making and team decision-making. It also has moderate hierarchy in salary distribution and organisational structure.

Since Company H is a listed company in the UK, it had to adopt IFRS mandatorily for consolidated accounts, but it could choose IFRS or UK GAAP for individual accounts freely. The respondent of the company ranked the adoption costs and benefits of adopting IFRS as low. Therefore, for Company H, adopting IFRS generated a zero net utility. Its annual reports indicated that it selected UK GAAP as the financial reporting regime for the parents' individual accounts. This proves again that when companies do not experience additional net benefit of compulsory IFRS adoption, they might prefer to use other regimes when they have free choice in other aspects (Cuijpers & Buijink, 2005). It also shows the tight link between companies' experience of using a regime for consolidated accounts and companies' regime choice for individual accounts.

Company B, Company G and Company H are all listed large firms. They were all

required to use IFRS for consolidated accounts, and had free regime choice for individual accounts. For them, adopting IFRS led to a zero net utility and a unity ratio utility. Company B chose to adopt IFRS for individual accounts; nonetheless, Company G and H elected UK GAAP when they had free choice. Their stated adoption costs and adoption benefits of IFRS and their regime choice for individual accounts are summarised in Table 6.9.

Table 6.9: Company B, G and H's Perceived Costs and Benefits of Adopting IFRS and their Regime Choice for Individual Accounts

Companies	Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)	Regime chosen voluntarily for individual accounts
Company B	Medium (3)	Medium (3)	1	0	IFRS
Company G	Low (2)	Low (2)	1	0	UK GAAP
Company H	Low (2)	Low (2)	1	0	UK GAAP*

Note: *Company H adopts UK GAAP for parent's individual accounts. The data of which regime it adopts for subsidiaries' individual accounts is not available.

From Table 6.9, it could be noted that even though adopting IFRS generated the same net utility (zero), for the three companies, the level of their perceived adoption costs and benefits were different. Company B had medium benefits and costs of adopting IFRS. Nevertheless, the adoption costs and benefits of IFRS for Company G and H were all low. Company B seemed to have a higher level of gross benefits coming from adopting IFRS. However, it should be bear in mind that these accounting costs and benefits are managers' subjective measures, and will vary across individuals and over time (Mises, 1998).

The results, from our sample, suggest that when a company does not experience additional benefits of compulsory IFRS adoption for consolidated accounts, it might

tend to use other regimes (i.e., UK GAAP in the cases) for individual accounts, as happened in the case of Company F, Company G and Company H (Cuijpers & Buijink, 2005). However, if a company, such as Company B, perceives a higher level of gross benefits from compulsory implementation of IFRS for consolidated accounts, it might voluntarily use the same regime for individual accounts, although it does not receive net benefits from compulsory adoption. As mentioned earlier in the case of Company B, both UK GAAP and IFRS led to a zero net utility of adoption. Nevertheless, adopting IFRS had relatively higher benefits than adopting UK GAAP. This is probably why Company B chose to use IFRS for individual accounts although compulsory adoption of IFRS for consolidated accounts did not bring a positive net utility.

Furthermore, the interviewee of Company B highly emphasised the importance of consistency across various divisions. The results, from the sampled used, imply that if a publicly listed UK firm does not perceive extra benefits of the mandatory IFRS adoption for consolidated accounts, it might still elect IFRS for individual accounts to accomplish a crucial goal of the company.

6.4 Public Company A: positive net utility of adopting IFRS

This section emphasises Company A which has a net utility of adoption IFRS, and discusses how it responds to compulsory IFRS adoption and how this mandatory adoption influences its regime choice for its individual accounts.

Company A was founded in the late 1990s. It is a UK medium-size firm with 70 employees. Its main business activities are acquiring, manufacturing and selling

pharmaceutical products. The UK is its main market where more than 80% of its sales are generated. In the most recently reported year, its annual growth rate of sales is negative. In terms of organisational structure, Company A confers moderate authority on team decision-makers, and high authority on individual decision-makers. Additionally, salaries are highly incentivised, and this is mirrored in the very hierarchical organisational structure.

Company A is the parent of a corporate group, and it used UK GAAP to report financial results before adopting IFRS. Since it is listed on AIM, it was required by the UK regulations to adopt IFRS for its consolidated accounts from 2007. However, for its individual accounts, Company A still could choose to adopt UK GAAP or IFRS. In fact, it chose to adopt IFRS early from 2004. Company A used IFRS for both consolidated accounts and individual accounts until 2012. From 2013, it continues to use IFRS for its consolidated accounts and parent's individual accounts, but it adopts FRS 101 for subsidiaries' individual accounts. By doing so, Company A can reduce the work involved to prepare the financial reports of subsidiaries. The reasons why it transits to FRS 101 will be extended in section 9.2. This section focuses on its choice behaviour towards the regulation of compulsory IFRS adoption before 2012. Table 6.10 exhibits Company A's regime choice for different types of accounts (before 2013).

Table 6.10: Company A's Regime Choice for Different Types of Accounts (before 2013).

Regimes / Choice / Accounts	IFRS	UK GAAP	FRSSE
Consolidated accounts	✓*	×	×
Parent's individual accounts	✓*	✓	×
Subsidiaries' individual accounts	✓*	✓	×

Note: * denotes the regime choice made by Company A

When Company A faced compulsory adoption of IFRS, it chose to adopt IFRS earlier from 2004 for several reasons. The respondent indicated in the interview that "Investors said they like to see it [adopting IFRS]." This is consistent with the respondent's statement that they regard consolidated accounts as an approach to attract investors. Therefore, this implies that the company will tend to accommodate investors' opinion when making regime choices. This consideration in financial reporting might be related to its nature of being a public firm. Furthermore, the financial reports of Company A mentioned that using IFRS allowed them to be allied with its competitors. Since investors often compare financial reports of a company with those of other companies in the same industry, it is reasonable that Company A which is keen to retain its investors would like to adopt the financial reporting regime which most of its competitors use.

In addition, the interviewee pointed out that this early adoption of IFRS was driven by the techniques in treating intangibles. He further explained that they had to amortise intangibles using the default amortisation period of 20 years under UK GAAP. However, under IFRS, they can choose not to amortise intangibles if they think the intangible has an indefinite life. Since the company does deem most of its

intangibles to have indefinite lives, adopting IFRS is more suitable than adopting UK GAAP for this corporation. Furthermore, although intangibles are not amortised in the accounts, the company could receive 4% per annum tax relief. Hence, the company prefers IFRS which matches its business practices and gives it the tax benefits, by not amortising most of its intangibles.

Because of the nature of its business, this company owns a large number of intangibles, which account for more than 80% of its total assets in 2013. In the questionnaire, the respondent also ranked the treatment of intangible properties as the most important financial reporting technique. It is within expectation that the treatment of intangibles plays an important role in decision making of this firm.

When transiting from UK GAAP to IFRS from 2004, Company A found the most challenging part was that what they have to disclose is substantially changed under IFRS, and this affects the way the company prepares financial reports. Additionally, some regulations under IFRS are very complicated, such as using the hedge accounting under IFRS. Therefore, Company A will need more experts to support these areas, and this implies additional costs of adopting IFRS. Nonetheless, after Company A evaluated the adoption costs and the benefits which mostly come from the treatment of intangibles, it decided to adopt IFRS early from 2004.

The following paragraph further investigates what the decision-making process of Company A is when it faces the changes in accounting policy. The respondent described that Company A has an annual technical meeting to update the changes in accounting regulations in that year. They will discuss, with the finance controller and auditors, what the potential benefits or costs these changes will bring. After the

discussion, they will report to the committee and explain the impact of these policy changes on the company. Briefly speaking, weighing costs and benefits of adopting a financial reporting mode is often discussion-based in this company, using the above procedure. The interviewee said that compulsory adoption of IFRS for consolidated accounts was a significant issue to financial reports. Their CEO, Finance director, audit committee, auditors, finance team were involved in the discussion of this group-wide issue.

When being asked the key factors in selecting regimes for various accounts, the interviewee mentioned they have different considerations for consolidated accounts and individual accounts. He stated that consolidated accounts are like marketing documents for shareholders and potential investors. The company attempts to attract more investors through the presentation of the consolidated accounts. The company has to look at many dimensions when choosing the regime for its consolidated accounts.

However, outsiders have less interest in individual accounts, which work as the complementary information and are not as important as the consolidated accounts. Under these circumstances, when choosing regimes for individual accounts, the company looks for simplicity and consistency across the whole group. The respondent indicated that the firm aims to keep things as simple as possible, to reduce the related administration load. The company also needs the consistency across different accounts, which is good for the long-term operation. Therefore, the regime choice for individual accounts is usually influenced by the regime for the consolidated accounts. The regulation of compulsory IFRS adoption did encourage Company A to use IFRS for its individual accounts, mainly for consistency purposes.

Again, following the concept of net utility and ratio utility used in Chapter 5 and in previous sections, this paragraph shows how the impact of mandatory IFRS adoption could be explained by the stated preference theory. Table 6.11 summarises Company A's perceived costs and benefits of adopting UK GAAP and IFRS, and the costs and benefits here are manager's subjective measures. This table exhibits the adoption costs of both UK GAAP and IFRS were low; nevertheless, the adoption benefits of IFRS (medium) was higher than those of UK GAAP (low). As mentioned earlier in this section, the benefits of adopting IFRS mainly came from the treatment of intangibles and the advantage of attracting investors. As a result, adopting IFRS led to a better net utility and a better ratio utility than adopting UK GAAP. Although adopting IFRS for the consolidated accounts was compulsory for Company A, the firm did enjoy the advantage from it, with the positive net utility (1) and the ratio utility greater than one (1.5). Since Company A experienced the additional benefits of adopting IFRS for its consolidated accounts, it chose to adopt IFRS for its individual accounts. Its behaviour is rational and consistent with cost-benefit analysis.

Table 6.11: Company A's Perceived Costs and Benefits of Adopting Regime (before 2013)

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Before 2013	IFRS*	Low (2)	Medium (3)	1.5	1
	Current UK GAAP	Low (2)	Low (2)	1	0

Note: * denotes choice for individual accounts made by Company A

The case of Company A proves again that companies' regime choices could be

illuminated by the net utility and the ratio utility, and the stated preference theory can help to explain how publicly listed firms' experience of mandatory IFRS adoption for consolidated accounts affects their regime choice for individual accounts. Different from other cases in previous sections, Company A did experience additional net utilities of adopting IFRS compulsorily, from management's perspectives. This advantage stimulated Company A to adopt IFRS early and to elect IFRS as the financial reporting regime for its individual accounts.

6.5 Public Company I: negative net utility of adopting IFRS

The previous sections discuss public firms with the zero and positive utility of adopting IFRS. To have more complete analysis of how the compulsory IFRS adoption for consolidated influences public companies, this section introduces a listed company, which has a negative net utility of adopting IFRS. It emphasises the stated costs and benefits of adopting regimes, and how the experience of adopting IFRS mandatorily for consolidated accounts affects the behaviour of this company in choosing financial reporting regime for individual accounts.

Company I is a UK-based investment trust. It is a small public firm which operates in the professional and financial services sector (SIC 59 - 83). It was founded in the 2000s. It has negative turnover growth in its most recently reported year. It has zero R&D expenditure because its main line of business is a form of investment which is not Technology-oriented. About 60% of its ownership is held by insiders, and around one-third of the ownership is held by institutions. Within its organisational structure, Company I gives high authority to individuals to make decisions and it uses teams to make decisions frequently. It is non-hierarchical in salary allocation, and its

organisational structure is flat. The limited use of hierarchy is common in a small service sector company (Stein, 2002; Zenger & Hesterly, 1997).

Because Company I is a publicly listed firm, it must adopt IFRS for consolidated accounts. It could use IFRS or UK GAAP for individual accounts. Company I's perceived adoption costs and adoption benefits (based on manager's preferences) of adopting IFRS and UK GAAP are presented in Table 6.12. As a small firm, Company I found that adopting IFRS was costly and resulted in a negative net utility (-1), with low adoption costs and zero adoption benefits. Furthermore, for Company I, adopting UK GAAP generated a zero net utility with zero adoption costs and zero adoption benefits. Under theses circumstance, Company I compulsorily adopted IFRS for its consolidated accounts and voluntarily adopted UK GAAP for its subsidiary accounts. Company I's voluntary adoption of UK GAAP is consistent with its perceived costs and benefits, and adopting UK GAAP led to a better net utility than adopting IFRS. The results imply that Company I, which experienced the unbeneficial compulsory adoption of IFRS, tends to apply other regimes when it has choices in other levels. This result again echoes the situation of Company F, Company G, and Company H.

Table 6.12: Company I's Perceived Costs and Benefits of Adopting Regime

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Present	IFRS	Low (2)	Zero (1)	0.5	-1
	Current UK GAAP*	Zero (1)	Zero (1)	1	0

Note: * denotes choice for subsidiary's individual accounts made by Company I

Furthermore, relevant literature indicated that IFRS is more suitable for larger firms (IFRS Foundation and the IASB, 2014; Jones & Higgins, 2006; Schiebel, 2008). It is also well recognised that small firms and large firms have different adoption costs and benefits (Watts & Zimmerman, 1978), and firm size influences firms' financial reporting choices (M. Hung & Subramanyam, 2007). Therefore, although Company I is a public firm, IFRS might not be suitable for it and particularly not appropriate for its subsidiary because of the small firm size. Hence, Company I experienced a negative net utility of adopting IFRS. This compulsory adoption had a worse net utility and a worse ratio utility than adopting UK GAAP which Company I had done before. Moreover, the size of Company I's subsidiary is even smaller. This is might be the reason why Company I did not elect IFRS for subsidiary's individual accounts. This result, from the case of Company A, suggests that firm size might play an important role in choosing accounting modes.

6.6 Summary and Discussion

This chapter investigates how firms' regimes for their consolidated accounts affect their regime choices for their individual accounts, and what the role of adoption costs and benefits is in companies' accounting decisions. The main focus in this chapter is the impact of compulsory IFRS adoption on companies. The findings are summarised in the following paragraphs.

The case studies in this chapter show companies' regimes for consolidated accounts are tightly related to their regime for individual accounts. This fact could be seen in both private and public firms in our sample. This is because firms prefer to have consistency across the whole organisation (Boojihawon et al., 2007; Yazdifar et al.,

2008). For instance, both the respondent of Company D and that of Company B indicated that they use the same financial reporting regime for all types of accounts in order to reach the consistency within the company.

Nevertheless, it could be noted from the interviews that public firms and private firms have different views on their consolidated accounts and individual accounts. Public firms often think that consolidated accounts are more important than individual accounts, as pointed out in all interviews of public firms (i.e., Company F, Company B and Company A). This is because investors pay more attention to consolidated accounts and few of them will read individual accounts. As a public firm, it is significant to retain current shareholders and attract more investors. Hence, public firms will put more effort into preparing consolidated accounts. However, private firms seem not to have so much pressure to attract investors. Financial reports are also very important for internal management. Like what the interviewee of Company D said, they do not treat consolidated accounts differently from individual accounts. The finding shows that the ownership structure might influence companies' view on financial reporting, and therefore affect their accounting choices.

In addition, this chapter shows that compulsory IFRS adoption for consolidated accounts did have an impact on public firms and even on private one, for the sample used. Furthermore, the case studies illustrate that sampled firms will apply their perceived costs and benefits when making regime choices. The private firm, Company D, carefully considered whether or not to adopt IFRS because its principal competitors are public firms which were required to adopt IFRS. Using the same regime as its competitors can improve the comparability across companies. For the private company which has free choices for consolidated accounts and individual

accounts, it will choose the regime which generates better net and ratio utilities. Even though Company D did consider the option of adopting IFRS, it did not perceive net benefits from using IFRS. Hence, it chose keeping using UK GAAP for all its accounts. The case of Company D also points out that when all regimes lead to a negative net utility of adoption, the firm can only elect the financial reporting regime which is relatively better than others. Moreover, this example indicates that the consistency within the company is a major consideration for firms to choose from amongst regimes which have the same adoption costs and adoption benefits (Boojihawon et al., 2007; Yazdifar et al., 2008). Hence, although adopting UK GAAP and FRSSE yield the same costs and benefits, Company D prefers to adopt UK GAAP for all their accounts.

For sampled public firms, the experience of adopting IFRS for consolidated accounts plays an important role in their regime choice for individual accounts. If a public company receives an additional advantage from using IFRS for consolidated accounts, it tends to adopt IFRS for its individual accounts. This could be seen in the case of Company A, which has a positive net utility of adopting IFRS and adopts IFRS for all its accounts. Nonetheless, if a public firm perceives adopting IFRS for consolidated accounts as unbeneficial, it tends to take advantage of reporting under UK GAAP for individual accounts (Cuijpers & Buijink, 2005). This situation particularly happens when a company experiences a negative net utility of adoption, as in the case of Company I which adopted UK GAAP for subsidiary's individual accounts. Company I is a publicly listed firm which must adopt IFRS for consolidated accounts. However, IFRS might not be appropriate for it and for its subsidiary because they are small-sized firms (IFRS Foundation and the IASB, 2014;

Jones & Higgins, 2006; Schiebel, 2008). This result also suggests that companies' choices of adopting IFRS might be affected by their firm sizes.

The above situation also appears when the compulsory IFRS adoption for consolidated accounts results in a zero net utility, such as the cases of Company F, Company G, and Company H. Even though larger companies often have more resources compared to small and medium firms (Jones & Higgins, 2006), these firms still did not obtain additional benefits of mandatory IFRS adoption. Hence, they chose to use UK GAAP when they have free choices for individual accounts.

Company B is a very interesting case. It experienced a zero net utility of adopting IFRS, but it elected IFRS as the regime for all its accounts. The respondent of Company B explained that the company made this decision in order to accomplish the goal of consistency within the whole group. This case demonstrates that when a firm discerns adopting IFRS mandatorily for consolidated accounts as unbeneficial, it might still choose to report its individual accounts under IFRS, to achieve a significant target (i.e., the consistency within the company in this case). Furthermore, although adopting IFRS has the same net utility as adopting UK GAAP, the level of adoption costs and benefits are different. IFRS has higher adoption costs and benefits, compared to UK GAAP. Company B might also adopt IFRS to receive higher adoption benefits.

The results in this chapter show that when making accounting choices, sampled companies will take into account the regime which their competitors adopt, and the opinions of shareholders. Many firms in the survey mentioned that they will weigh benefits from the consistency across the whole company and measure transition costs

of using a new regime, in addition to inspect the regulation of regimes (Boojihawon et al., 2007; Hail et al., 2010; Yazdifar et al., 2008). It is important to have consistency. However, if the transition cost is too high, companies might use various regimes for different accounts, as we can see in the case of Company F. The findings of this chapter enhance our understanding of regime choices for various accounts. They also provide additional evidence with respect to the impact of mandatory IFRS adoption.

Moreover, many respondents in our sample pointed out that they will examine techniques when making regime choices, and consider the costs and benefits of each regime. Some sampled firms weigh costs and benefits subjectively, which depends on previous experiences. Some weigh costs and benefits based on group discussion. This suggests that technique choices and regime choices are associated, for the sampled used. The relationship between regime choices and technique choices will be further investigated in the next Chapter. This chapter proves again that stated preference approach could be used to capture companies' costs and benefits of adopting a financial reporting mode, as discussed in Chapter 5.

Chapter 7 Empirical Evidence on Decision-Making Process in the Two-Stage Choice Model: UK Illustrative Case Studies

7.1 Introduction

Chapter 6 used case studies to illustrate the relationship between regime choice for consolidated accounts and that for individual accounts, and it discussed companies' decision-making processes with the focus of weighing adoption costs and adoption benefits. As elaborated in Chapter 3, in the choosing process, companies actually face two types of choices, namely, the choice of financial reporting regimes and the choice of financial reporting techniques. Chapter 6 also briefly mentioned that regime choices and technique choices are related to each other. Following Chapter 6 and Chapter 3 which exhibited the two-stage choice problem within the UK framework, this chapter analyses UK cases to further explore how companies make decisions in this two-stage choice model. It aims to discover whether a company's decision-making process is sequential or nested, and whether a firm chooses regimes or techniques first. It applies preference orderings and utility functions to formalise companies' choice behaviours. The chapter also explains the characteristics of the decision-making process in detail, including risk, the complexity of financial reporting and time pressure.

In Section 7.2, a private firm's decision-making process across time is elaborated. Section 7.3 illustrates a public firm's choice behaviour for a tied choice and that for a free choice. Another case of a public company is exhibited in Section 7.4 to compare

and contrast the results with those in previous two sections. Section 7.5 summarises the findings in this chapter.

7.2 Private Company D: Sequential Choice (Lexicographic Ordering and Colexicographic Ordering)

Company D is a UK-based private firm. It is a motor retailer and operates other business related to motor, such as repairs and insurances. As a private firm, it has free choice for consolidated accounts and individual accounts. As indicated Section 6.2, since its major competitors were public firms, the compulsory adoption of IFRS for public firms' consolidated accounts from 2005 also had an impact on it. Furthermore, the authority aimed to replace the current UK GAAP with a new UK GAAP, including FRS 101 and FRS 102, from 2015. Company D currently uses UK GAAP for all its accounts, and the introduction of New UK GAAP implies that there will be some changes in accounting for Company D. These two changes are very significant in financial reports. Therefore, this section investigates how Company D behaves when facing the above two major policy changes in accounting, using the two-stage choice model illustrated in Chapter 3.

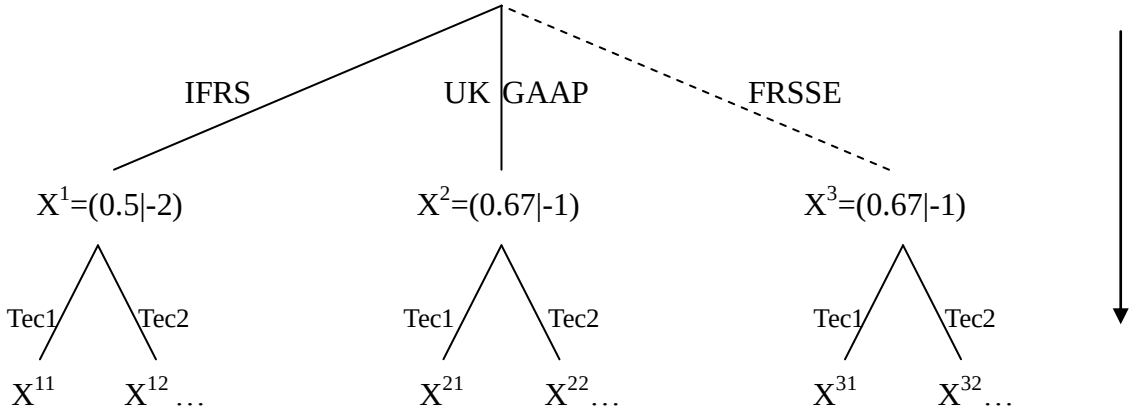
Lexicographic Ordering

First of all, the following paragraphs examine Company D's decision-making process right before 2005, a time when its main competitors were required to adopt IFRS for consolidated accounts. The respondent of Company D said that they chose regime first, and then made the technique choices at that time. He added that under different regimes, techniques will alter. For example, the methods of amortisation under

various regimes are distinct. After the company decided on the regime, the techniques followed. This implies that the regime choices will influence the technique options.

IFRS has different regulations from UK GAAP in many aspects. When the company faced the regime choice, it also had to decide what techniques to use. As described by the interviewee, Company D's decision-making process was sequential: regime choices were made first, followed by technique choices. The respondent of Company D also argued that techniques across various regimes were very similar. Applying the concept of preference orderings in Chapter 3, the company's choice could be expressed by the lexicographic ordering (Colman & Stirk, 1999; Houy & Tadenuma, 2009). This means that when this firm faced the regime choices and technique choices right before 2005, it first compared available regimes and chose the regime, which maximised its utility in this stage, before determined its financial reporting techniques. Referring to the case study in Section 6.2, Company D did adopt UK GAAP which led to a better adoption utility than IFRS (see Table 6.2 and Figure 7.1). The decision tree of Company D with relevant adoption utilities can be found in Figure 7.1. In the parentheses shown in Figure 7.1, ratio utilities are given first, followed by net utilities. It can be observed that adopting IFRS led to a ratio utility of 0.5 and a net utility of -2. Using UK GAAP and FRSSE both generated better ratio (0.67) and net utilities (-1). The arrow in Figure 7.1 indicates that the decision-making started from regime choices, followed by technique choices.

Figure 7.1: Decision Tree of UK Private Company D (Until the End of 2014)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities.
(2) The arrow indicates the decision-making process.
(3) The FRSSE is only applicable to subsidiaries' accounts. Hence, the FRSSE alternative is presented using dashed lines.
(4) There is no large difference in techniques across regimes in this case.

The respondent of Company D stated that when determining regimes, the company will focus on the material needed to prepare financial reports under a certain regime. It will choose the simplest financial reporting regime, and this process is more judgement-based without too many calculations. This is consistent with the analysis in Section 6.2, which has shown that UK GAAP is easier to use because it fits the company's business operations better, and can be explained to shareholders using fewer efforts. The interviewee further stated that the company is a family-run business, and it looks for simplicity. The company makes the accounting decisions through the above process also because of its simplicity. This fact is in accordance with his statement that the ease of execution is important in the choosing process. These statements also show that Company D's accounting choices are highly related

to its ownership (i.e., family-owned private firm).

This instance displays that overall simplicity of a regime is a crucial factor for Company D when making accounting decisions. Additionally, the respondent of this company indicated there was no big difference in techniques across various regimes. This description implies that the technique choices would not have large influence on the firm as the regime choice would. Hence, it seems the regime choice outweighed the technique choices in this situation, from manager's perspectives, and this might be the reason why Company D made the decision sequentially (i.e., first chose a regime, and then elected techniques) (see Figure 7.1).

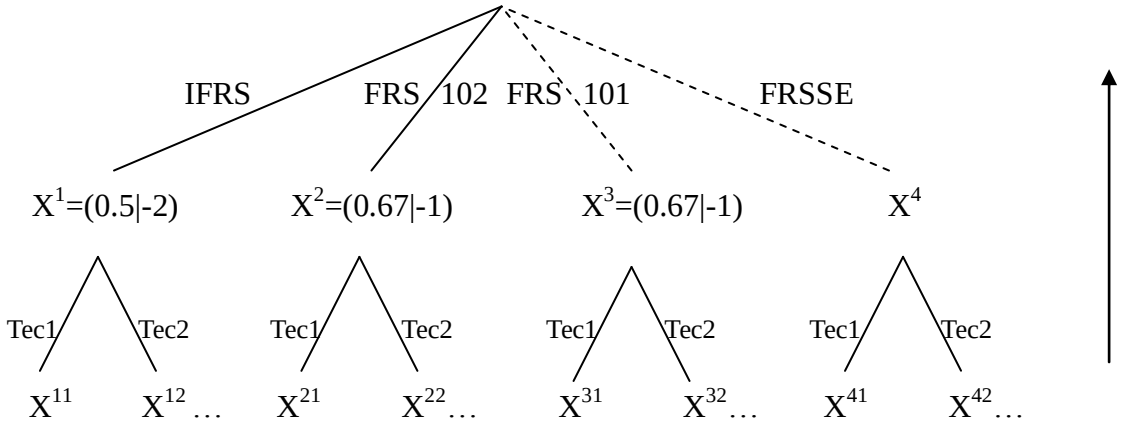
Colexicographic Ordering

How Company D decides the regime and techniques when faced with the introduction of New UK GAAP in 2015 is now explored. As indicated in Chapter 3, the new UK GAAP will replace the current UK GAAP. Therefore, companies can no longer use current UK GAAP. Under the new adoption framework, Company D can use IFRS or FRS 102 for consolidated accounts. For individual accounts, it can adopt IFRS, FRS 101 or FRS 102 for individual accounts. For some of its subsidiaries, they could also use the FRSSE for subsidiaries' individual accounts. Company D's regime options for different accounts are summarised in Table 7.1.

Table 7.1: Company D's Regime Choice for Different Types of Accounts (From 2015)

Regimes / Choice / Accounts	IFRS	New UK GAAP		FRSSE
		FRS 102	FRS 101	
Consolidated accounts	✓	✓	×	×
Parent's individual accounts	✓	✓	✓	×
Subsidiaries' individual accounts	✓	✓	✓	✓

Figure 7.2: Decision Tree of UK Private Company D (From 2015)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities. The adoption utilities of the FRSSE were not available in this case.
(2) The arrow indicates the decision-making process.
(3) The FRS 101 is only applicable to individual accounts. The FRSSE is only applicable to subsidiaries' individual accounts. Since these two regime choices cannot be used for all accounts, they are presented using dashed lines.
(4) The technique for treating incomes under FRS 102 is unfavourable for this firm.

Figure 7.2 shows the decision tree of Company D from 2015. Ratio utilities and net utilities are given respectively in the parentheses of Figure 7.2. Originally, Company D wants to adopt FRS 102 for all its accounts because this standard is similar to current UK GAAP and is simpler with fewer pages. This statement implies that this company prefers to maintain the status quo when facing changes in accounting

policies (Messier et al., 2014). However, Company D decides not to adopt FRS 102 because it found that the technique for treating incomes under FRS 102 is not suitable (refer to Section 9.2.1). Hence, this firm considers using IFRS for consolidated accounts from 2015. It is still evaluating whether IFRS or FRS 101 will be more suitable for individual accounts. This case shows that if there is a key technique which influences a company heavily, the company might change to another regime in order to use a certain technique in financial reports. This instance also shows that technique choices will affect regime choices. More information about Company D's consideration and responses when facing the New UK GAAP will be expounded in Chapter 9.

In this example, Company D scrutinises all options, including regime choices and technique choices. Since one technique is dominant in this two-stage choice problem, the firm first elects a technique and then makes regime choices. This decision-making process is sequential, whereas it is very distinct from the previous situation near 2005. This time the company's behaviour could be elaborated by the colexicographic ordering (Castano & Castano, 2012). This preference ordering suggests that Company D compares the utilities of techniques to decide techniques ahead of the regime choices.

The case of Company D shows that companies' preference orderings might change across times. Even though a company made regime choices and technique choices using the lexicographic ordering previously, it might apply the colexicographic ordering later. The outcomes suggest that the relative importance of regime choices and that of technique choices will affect companies' preferences (Birnbaum, 2010; Castano & Castano, 2012; Colman & Stirk, 1999). If a company thinks regime

choices have a larger impact than technique choices, it is more likely to apply the lexicographic ordering and make the accounting decisions sequentially. On the contrary, if a company concerns technique choices more than regime choices, it tends to employ the colexicographic ordering in this two-stage choice model. In addition, Company D's decision-making processes are sequential in both of the cases, and this procedure is mainly relied on judgement. As indicated by the respondent of this company, it is simpler for them to make decisions using the staged and subjective approach (Burmeister & Schade, 2007; Einhorn & Hogarth, 1981).

Regarding the characteristics of the decision-making process, although regulated by relevant authorities to produce financial reports, the company is not under great time pressure to do so. Time pressure is mainly from the internal rather than from the external, and the company has its own schedule for financial reporting. The low time pressure is reflected in that the company does not regard speed of preparing financial reports as a crucial aspect when making accounting decisions. Furthermore, the interviewee mentioned that the ease of execution is more important than the transparency. This might be because Company D is a private firm whose financial reports are aimed at internal control rather than attracting external investors. In addition, decisions are normally made by teams through group discussion, and depend on financial directors and other's expertise and knowledge. The company will discuss important accounting issues with its accountants. It also measures risks subjectively, rather than modelling them objectively. The weather and economic environment will heavily influence sales of vehicles and this will cause risks in cash flows. Since the company is very large, it attempts to be very risk diverse. By doing so, the company can reduce the complexity. These statements show that the

profession of employees and the simplicity are significant in Company D's decision-making process. It can also be observed that being a private firm influences how Company D prepares financial reports, in the sense of affecting key considerations in decision-making.

7.3 Public Company A: Nested Choice

The previous section discusses a private firm's decision making process in the two-stage choice model of financial reporting regimes and techniques. Different from private firms with free choices for all accounts, publicly listed firms must adopt IFRS for consolidated accounts. Public firms only could choose regimes for individual accounts freely. Hence, this section focuses on a public company and examines whether there is any difference in their choice behaviours.

Company A is a manufacturing firm in the pharmacy industry. It is a medium public firm in the UK. The respondent of Company A said that their choosing process depends on whether the adoption is a compulsory swift or a voluntary change.

If it is a compulsory adoption of a regime, such as the mandatory adoption of IFRS for consolidated accounts, the company will go to make technique choices directly. In this situation, the decision-making process could be seen as sequential, since the regime choice has been made involuntarily and the company can only choose techniques under the given regime. Nevertheless, different from Company D, which also used a staged decision-making process and made accounting decisions sequentially when the time approached 2005, Company A was forced to make the regime choice first.

It could be noted that complying with the regulation dominates the two-stage choice problem. It is more crucial for Company A to adopt the required regime than to choose techniques. Therefore, the company involuntarily adopted IFRS as its regime for consolidated accounts before it considered technique choices. Under these circumstances, the firm followed the lexicographic ordering, although it might not wish to do so. Similar to the case study of Company D, when the importance of regime choices is higher than that of technique choice, companies will apply the lexicographic ordering and make financial reporting choices sequentially.

In the previous paragraph, it is argued that the preference ordering of Company A was lexicographic. This means the firm compared utilities of regimes and chose the one with the highest net-utility before considering technique choices. One important issue here is that what if Company A perceives higher utilities of adopting other regimes than implementing IFRS. Under these circumstances, even though companies are forced to make accounting decisions sequentially, it cannot be promised that firms will always adopt IFRS. One proposed explanation is that regulations will influence companies' utility of accounting modes. For instance, if companies do not comply with laws, they will face substantial costs and risks, such as fines or the cancellation of business operations. Regardless of firms' original preferences towards financial reporting modes, the laws might transform their utilities. That is, the accounting modes, which firms are required to use, will generate the highest adoption net-utility after companies take into account the disadvantage of violating laws. Hence, it could be said that Company A applied the lexicographic ordering in this two-stage accounting choice problem, and its utilities were affected by the laws.

From another perspective, this example shows that the two-stage choice model of financial reporting regimes and techniques might be reduced to a one-stage choice problem when firms' choices are limited. Because of mandatory IFRS adoption, Company A had only one option of financial reporting regime. At that time, it only had choices over techniques. Hence, the accounting choice problem which it faced became a one-stage choice.

Furthermore, it is worth investigating how Company A behaves when having free choices, and whether the firm makes accounting choices differently compared to the situation of tied choices. The interviewee asserted that when the company has a free choice of regimes and techniques, it will look at regime choices and technique choices together, and makes the decision using a nested process. He explained that regime choices and technique choices are tightly linked. Hence, using the nested decision-making process is more appropriate when the company has free choices.

Additionally, the respondent of Company A mentioned that technique choices are crucial to assess regime choices. When evaluate accounting modes, the company will examine all options available, and investigate how they influence results of financial reports. This part is the same as Company D, which looked at all choices when facing the policy changes from 2015. Company D applied a sequential decision procedure, and made the technique choices first because it aimed to use a certain technique. However, the respondent of Company A stated that the company prefers to make nested decisions when it has free regime choices.

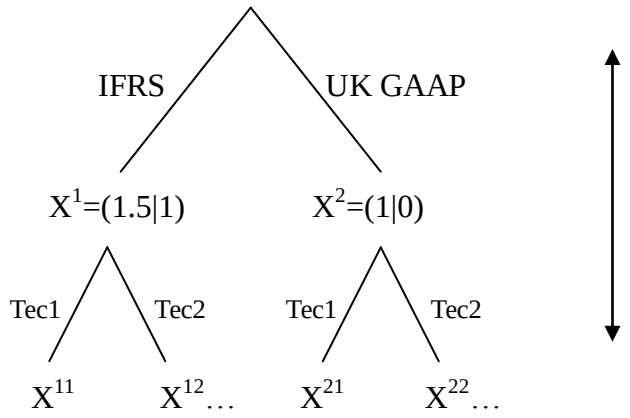
The way Company A made accounting decisions for individual accounts near 2005 is a good example of a nested choice. Although Company A was required to adopt IFRS

for consolidated accounts from 2007, it could freely choose IFRS or UK GAAP for individual accounts. As indicated in Section 6.4, the interviewee stated that investors prefer the company to adopt IFRS as doing so could enhance the firm's comparability in the industry. Moreover, he pointed out that the company preferred the treatment of intangibles under IFRS than that under UK GAAP. These remarks displayed that Company A not only looked at costs and benefits of using techniques, but also studied those of adopting different regimes. This result presents that this firm considered regime choices and technique choices simultaneously and used an un-staged decision-making process.

We further asked the respondent whether he thinks the un-staged process and the staged process will result in different choice patterns. He replied that it depends on the importance of choices because final decisions must meet the goals of the company. This comment matches our early argument in this chapter that the relative significance of technique choices and that of regime choices will determine companies' preference orderings and their decision-making processes.

Figure 7.3 shows the decision tree of Company A, which consists of two regime choices (i.e., the IFRS and UK GAAP) and different alternatives of technique combinations under each regime. In this choice problem, Company A has various options, such as $X^{11}=(1.5|1, x_{11})$ and $X^{21}=(1|0, x_{21})$. The double arrow indicates the decision-making process of Company A in this example is nested.

Figure 7.3: Decision Tree of UK Public Company A (Individual Accounts, until the end of 2014)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities.
(2) The double arrow indicates the nested decision-making process.

The following paragraphs apply the concepts mentioned in Section 3.5 to formalise the nested choice process. If a company's choice is X^{ij}, it means the firm chooses regime i, which brings the utility x_i, and technique combination j of this regime, which generates the utility x_{ij}. Unlike companies which deploy sequential decision-making processes (i.e., only compare x_i or merely compare x_{ij} in the first instance), a firm using a nested process will consider all utilities of regimes and techniques together. Hence, the firm's utility function of a joined accounting mode could be formally presented as $u(X^{ij})=f(x_i, x_{ij})$. The company will assign weights to various accounting choices, including regime and technique ones. The weights reflect the importance of these choices, and influence the company's adoption utilities. The firm will choose the accounting alternative which leads to the maximum combined utility of the regime and the techniques. For example, this company will elect the accounting mode X^{12} (regime 1 and technique combination 2) if the utility of mode

$u(X^{12})$ is higher than $u(X^{11})$, $u(X^{21})$, and $u(X^{22})$. That is, regime 1 and technique combination 2 yield the highest utility than other united options.

With regards to the utility function, it should be noted that corporations often pay more attention to the accounting forms, which can help to achieve their goals. Firms have their own goals to meet, and the significance of each goal varies. Therefore, firms will prioritise accounting choices differently, resulting in various preferences and utilities towards accounting modes.

The above utility function can be applied to explain the nested choice of Company A. When Company A has free choices, it also considers regime choices and technique choices together, and chooses the financial reporting mode with the maximum joined utility. Its final decisions depend on its goals and their priority. This fact is in accordance with the interviewee's statement that the importance of company goals will determine whether a staged process and an un-staged process lead to the same accounting choice.

The previous sections demonstrate that when regime choices dominate the entire choice problem, companies are inclined to apply lexicographic orderings. When technique choices are highly important compared to regime choices, firms' preferences are more likely to be colexicographic. Compared to the firms which have lexicographic or colexicographic orderings, the companies which make decisions using un-staged processes might have less clear ideas about the relative significance of goals. For instance, Company A might understand its goals and have several crucial targets to accomplish. However, the relative importance of these goals might not be so obvious and might be difficult to judge. Therefore, Company A made

regime choices and technique choices simultaneously. Using the un-staged process also allowed Company A to accommodate various key aspects and to have an overall better outcome.

The respondent of Company A mentioned that when assessing accounting forms, it is important that the results meet the expectation of the committee and the board. Thus, it could be inferred that the company gives more weight on accounting modes which will satisfy the board and the committee. Furthermore, the interviewee indicated that the company uses the un-staged procedure to make accounting decisions because the business operation of the company is very unique, and the company emphasises the whole organisation. The decisions are not only about accounting, but also related to how the company is run. This explanation also suggests that the nested decision-making process helps Company A to find a better solution in general with the consideration of crucial respects across the entire company.

In terms of attributes during the choice process, the respondent of Company A said that there is always time pressure. Nonetheless, the schedule is almost the same for every year. He added that it is very complicated to interpret regulations properly and fully understand how the regulations influence the company. Some accounting treatments, such as treating intangibles and acquisitions, are also difficult. These complexities will slow down the decision-making process. Since it is essential to meet deadlines and have accurate financial reports, the company will look for help from external experts, who assist the company in making decisions quickly and professionally. Moreover, the interviewee indicated that the company prefers to have more evidence to make decisions and to conduct a proper analysis. Hence, most of the time, they will have relevant data to support decisions. If they have to make

decisions soon, they will do it by judgement based on previous experiences (Burmeister & Schade, 2007; Einhorn & Hogarth, 1981). If the time for making decisions is very limited, they sometimes will use intuition. Compared to Company D, which often makes decisions subjectively and cares about the ease of execution, Company A uses more decision supports to have precise financial reporting results.

Furthermore, the company does not like uncertainty. It will prefer options which are more certain. One of its major risks is the market risk because markets for products will shift. The firm conducts a great deal of product forecasting, and looks at the market dynamics. It uses risk classes and scenario analysis to handle risks. Additionally, the company makes accounting decisions by both teams and individuals. Key decisions will go through the boards, and others will be determined by finance director and CEO.

Unlike Company D, which depends on employees' judgement to measure risks and to choose accounting modes, Company A tends to have more visible evidence to support its decisions. The supporting information might also be useful for Company A to apply the un-staged decision-making process which attempts to accommodate various key aspects of the entire firm.

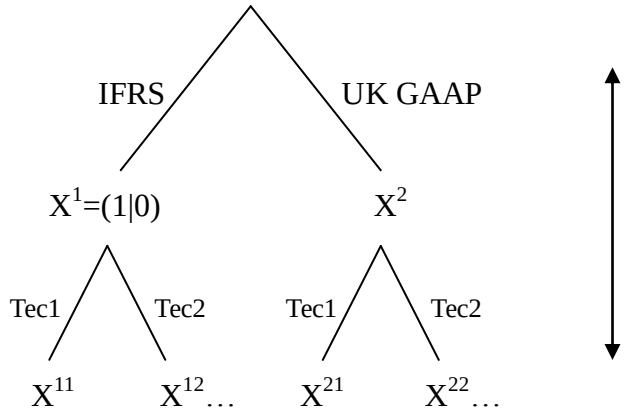
7.4 Public Company F: Nested Choice

This section examines another public company's decision-making process in the two-stage choice problem of financial reporting, to provide more information about public companies' behaviour in accounting.

Company F is a medium UK service company which supplies properties-related

solutions. As a public listed firm, Company F does not have regime choices for consolidated accounts and it can only adopt IFRS. Hence, like Company A, Company F elected the regime first, and then made technique choices. Company F also applied a sequential decision-making process reluctantly when choices were tied. It could be said that the laws of mandatory IFRS adoption influenced Company F's utilities of regimes. Regardless of its original preferences towards various financial reporting regimes, IFRS led to the highest utility when the company took the regulation into account. It could also be seen that the two-stage choice model became a one-stage choice problem because of compulsory adoption of IFRS.

Figure 7.4: Decision Tree of UK Public Company F (Individual Accounts, until the end of 2014)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities. The adoption utilities of UK GAAP were not available in this case.
(2) The double arrow indicates the nested decision-making process.

Regarding the accounting choices for individual accounts, Company F could choose regimes and techniques freely. It could adopt IFRS or UK GAAP as the regime for parent's individual accounts and subsidiaries' individual accounts. The respondent of

Company F explained that the company considered technique choices and regime choices simultaneously when faced with free choices. Hence, it used an un-staged process to make decisions. The decision tree of Company F is shown in Figure 7.4 where the double arrow indicates the nested decision-making process.

This situation is similar to how Company A responded to free choices as mentioned in previous section (i.e., Section 7.3). The utility function of a combined financial reporting mode, $u(X^{ij})=f(x_i, x_{ij})$, can be used in the case of Company F. When it faced the free choices for individual accounts, Company F chose the joined regime and technique mode X^{ij} which generated the maximum utility $u(X^{ij})$. The chosen accounting mode X^{ij}, consisting of the regime utilities x_i and the technique utilities x_{ij}, was expected to bring the overall better results to Company F because the firm evaluated regimes and techniques at the same time. The weights, which Company F assigns to various accounting choices, will be influence by its goals and affect the form of its utility function.

The interviewee mentioned that individual accounts are not as important as consolidated accounts. Therefore, when the firm determines accounting forms for individual accounts, it focuses on the ease of execution and that the financial reporting results should be perceived by stakeholders as reasonable. Furthermore, he pointed out that the company judged the benefits of various accounting modes subjectively. He also thought that regime choices and technique choices influence each other and are intrinsically linked. In addition, since regimes were converging and there was no big difference among different regimes, the company did not examine choices in detail or in stages. Under these circumstances, it is easy to make decisions by the un-staged process. Using the un-staged procedure is consistent with

Company F's intention to complete tasks easily.

Both Company D and Company F think that the ease of execution is important during the decision-making process. However, Company D applied the staged process and Company F used the un-staged process when having free choices in financial reports. As discussed in Section 7.2, Company D found that certain regimes or techniques were much more favourable than other accounting modes. Nevertheless, Company F felt that different accounting standards were very similar. The outcome suggests that if a company, such as Company D, is eager to achieve a goal or choose a specific accounting form, which resulting in that regime choices are much more significant than technique choices, or the reverse, it will apply a sequential decision-making process. On the contrary, a company, like Company F, will tend to use a nested procedure to make decisions, if various accounting modes are almost the same for it, and regime choices and technique choices are almost of equal importance.

Additionally, the respondent of Company F said that the decision-making process is more judgement-based, but with certain level of procedure supports, such as computations and scenario analysis. Company D and Company F both look for the ease of execution during the decision-making process, and both of them tend to make decisions subjectively. Different from Company D, Company F's decision-making process is sometimes based on procedure which provides some solid information for the decision-making. Using a nested decision-making process means that companies consider regimes and techniques together, and they try to accommodate all aspects of accounting choices. In this situation, actual numbers and practical evidences might be helpful for companies to make decisions. Therefore, Company F and Company A,

which made choices simultaneously when facing free choices, both used supporting data to determine accounting modes to some extent.

Furthermore, the respondents of Company A and Company F both stated they have to ascertain that the results of financial reports meet shareholders' expectations when they evaluate accounting modes. Although the interviewee of Company D mentioned shareholders have an impact on accounting choices, it seems the firm focuses more on the ease of execution and simplicity during the decision-making process. One explanation for this difference might be the fact that Company D is a private firm. However, Company A and Company F, both of which are public firms, would probably have more pressure from investors.

Additionally, the respondent of Company F indicated that transparency and compliance are very important when preparing financial reports. Financial reports should also be prepared and completed quickly. The focus of transparency might also be related to the company's public character. In terms of the characteristics in the decision-making process, the interviewee felt that the decision-making process is not complicated because all financial reporting standards are converging. Only some parts, like financial instruments, foreign exchanges, and judgemental aspects, are more difficult. Moreover, he mentioned that the risk and the uncertainty, most of which come from transactions, will influence the decision-making process. The company often uses risk classes to measure risks. He also stated that only during the period of transiting to IFRS the company was under time pressure. Since the process to prepare financial reports becomes routine, Company F does not have time pressure. In addition, the firm has enough information to make rational decisions. "Auditing company is the safe line," the respondent said. The auditing company will provide

the latest information about financial reporting laws. Company F itself will also participate in education training to update accounting regulations, and investigate what the changes are. It will consult the auditing firm about what it should do to respond to the changes in accounting policy. Considering Company F's relatively smaller firm size, it seems that auditors have a crucial impact on the choice outcome of this company.

7.5 Summary and Discussion

This chapter explores how companies behave in the two-stage choice model of financial reporting regimes and techniques. It aims to investigate whether firms make decisions in stages when facing regime choices and technique choices. If they determine accounting forms in stages, whether they deal with regime choice first or consider technique choices first. Furthermore, this chapter attempts to show how companies' behaviours could be formally expressed by the preference orderings and the utility functions discussed in Chapter 3.

Three case studies, including one private firm and two public firms, are examined in this chapter. The private Company D has free choices for both consolidated accounts and individual accounts. Company A and Company F are public firms with tied choices for consolidated accounts, but they can choose accounting modes for individual accounts freely.

When facing free choices, the three firms applied different decision-making processes. Company D made accounting decisions in stages, but Company A and Company F determined financial reporting forms simultaneously. The case of

Company D shows that this firm found a certain regime very favourable near 2005, and it is eager to adopt a specific technique when facing the policy change from 2015. For Company D, the relative importance of regime choices and that of technique choices were very obvious. Hence, it used the sequential decision-making process. Moreover, the findings imply that when regime choices dominate the entire choice problem, companies tend to choose the regime before making technique decisions, as what happened to Company D right before 2005. In this situation, companies' behaviours could be explained by the lexicographic ordering which refers to that companies will compare the utility of regimes first when facing the two-stage choice problem of financial reporting regimes and techniques. In contrast, when technique choices are much more important than regime choices, companies will elect the technique first, and their preference orderings will be colexicographic since they compare the utility of techniques before assessing regimes. How Company D makes accounting decisions near 2015 is a good example of the colexicographic ordering.

When having free accounting choices, Company A and Company F applied the nested decision-making process. Company A aims to take all key aspects into account when making decisions. The nested decision-making process helps Company A to have an overall better outcome for the whole organisation. For Company F, there is no large difference across different standards. Hence, it is unnecessary for the firm to examine accounting modes in detail or in stages, and it is easier to make decisions simultaneously. The analysis presents that Company F and Company A do not perceive clear distinction between the significance of regime choices and that of technique choices. This is probably the reason why they adopt the nested decision-making process, rather than the sequential procedure.

When companies make decisions by un-staged processes, they consider regime choices and technique choices at the same time. They will choose the financial reporting form which leads to the better result (i.e., the maximum utility) when taking various crucial aspects, including regimes and techniques, into account. Their utility functions could be expressed as $u(X^{ij})=f(x_i, x_{ij})$, whose form is associated with companies' priorities in financial reporting (e.g., the relative importance of regime and technique choices). As mentioned by the respondent of Company A, companies' goal will determine whether the nested and the sequential decision-making processes result in the same accounting pattern. Since the focus is different across firms, companies might assign different weights even to the same accounting mode. Hence, firms choose different financial reporting forms and make accounting decisions differently (i.e., in stages or not, and using the lexicographic or colexicographic orderings).

For Company A and Company F, they have tied choices when preparing financial reports for consolidated accounts. As public firms, they can only use IFRS as the regime for consolidated accounts. Compulsory IFRS adoption forced public companies to elect the regime before they could choose techniques. They applied the staged decision-making process involuntarily. In addition, regardless of companies' original utilities of adopting various financial reporting regimes, IFRS yielded the highest adoption utility after they took into account the substantial costs of violating the laws. The results show that the regulation could transform firms' utilities of accounting modes. Hence, companies adopted IFRS, which generated a better utility in the first stage of the choice problem. On the other hand, it could be said that the two-stage choice model will be reduced to a one-stage choice problem when choices

are tied. Because of mandatory IFRS adoption, public firms only have technique choices and face a one-stage accounting choice problem.

Furthermore, the case studies suggest that the decision-making process will change over time. As discussed in Section 7.2, Company D applied a lexicographic ordering near 2005, but used a colexicographic ordering later. The change in Company D's preference orderings results from the transition of relative significance in regime choices and technique choices across time.

The results in this chapter also show that firms have different styles of evaluating various accounting modes. For instance, Company D and Company F tend to assess financial reporting modes subjectively because they look for the ease of execution. In contrast, Company A prefers to judge accounting options with the help of visible evidence. Company F sometimes also uses actual numbers and scenario analysis to help the decision-making. It should be noted that Company A and Company F both apply the nested decision-making process for free accounting choices. When companies make decisions simultaneously, they need to consider all key aspects at the same time. In this situation, supporting data might be very helpful. Therefore, both Company A and Company F like to have supporting data when making accounting decisions.

Chapter 8 Empirical Evidence on Choices in Financial Reports: Nonparametric Tests and Case Studies (Taiwanese Firms)

8.1 Introduction

Chapter 5 to Chapter 7 explored UK firms' choice behaviour in financial reports. In order to provide more complete information about companies' choice behaviours in accounting, this chapter discusses parallel accounting issues in Taiwan. On the basis of stated preference theory (Adamowicz et al., 1994; Hensher, 1994), this chapter uses both qualitative and quantitative approaches to analyse Taiwanese firm data. The Taiwanese sample consists of 10 face-to-face interviews and 15 questionnaire responses. The sample is small but informative. It is very diverse in terms of industries, firm size and ownership structure. The structure of this chapter is as follows:

Section 8.2 conducts nonparametric tests to examine whether adopting IFRS is beneficial for Taiwanese publicly listed companies from management's point of view. Section 8.3 further investigates how they measure the adoption costs and benefits of IFRS, and whether cost-benefit analysis affects their decisions on adopting IFRS early from 2012 (when they could choose freely). Section 8.4 emphasises Taiwanese firms' technique choices, and aims to discover whether these choices are consistent with cost-benefit analysis. Section 8.5 illustrates the two-stage choice model of accounting modes under the framework of Taiwanese policies, and considers regime

and technique choices together. The summary and discussion is presented in Section 8.6.

8.2 Compulsory IFRS Adoption in Taiwan: Nonparametric Tests

The results of nonparametric tests in Section 5.2 showed that managers of sampled UK firms did not perceive adopting IFRS as beneficial. From 2013 and 2015, Taiwanese public companies are required to adopt IFRS. The IFRS implemented in Taiwan is very similar to that adopted in the UK, but with subtle revisions[5]. To give more evidence on whether adopting IFRS brings additional benefits to firms (Bruggemann et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006), this section uses Taiwanese data to re-examine the hypotheses tested in Section 5.2 (see below).

H_0: Adopting IFRS is beneficial.

H_1: Adopting IFRS is not beneficial.

Amongst the 15 Taiwanese companies which completed our questionnaire, 11 firms were public listed companies, which all stated their adoption costs and benefits of IFRS. Unlike UK private firms, Taiwanese private companies were not allowed to choose IFRS[6]. Hence, the following discussion focuses on Taiwanese public firms.

[5] The IFRS adopted in Taiwan (T-IFRS) is designed on the basis of the IFRS adopted in the European Union (EU-IFRS), including UK. The current T-IFRS follows an early version of EU-IFRS, rather than the latest one. The differences between T-IFRS and EU-IFRS were elaborated in Section 3.3.

[6] One of the four Taiwanese private companies which joined the survey also ranked the adoption costs and benefits of IFRS. It perceived extremely high adoption costs and low adoption benefits of IFRS, and therefore this adoption will lead to a negative net utility. This result suggests that the private company did not regard adopting IFRS as beneficial.

Because of the small sample, nonparametric tests were applied, as in Section 5.2 (Alam, 2001; Hollander et al., 2014, Chapter 1; Whitley & Ball, 2002).

This section scrutinises both the net utility (benefits minus costs) and the ratio utility (benefits over costs) of adopting IFRS (Schwab & Lusztig, 1969; Smith & Reid, 2008; Watts & Zimmerman, 1978). Firstly, Taiwanese publicly listed firms' net utilities of adopting IFRS are presented in Table 8.1. The zero net utility was the modal value (six firms; 54.44%), and the number of firms with negative net utilities (four firms; 36.36%) was greater than that of firms with positive net utilities (one firm; 9.09%). This situation is very similar to the distribution of UK firms' net utilities of adopting IFRS (refer to Table 5.1), and it seems adopting IFRS does not come with additional benefits.

Table 8.1: Frequencies of Taiwanese Public Firms' Net Utilities (Benefits – Costs) of Adopting IFRS

Net Utility	Frequencies	Percent	Cumulative Percent
-2	1	9.09	9.09
-1	3	27.27	36.36
0	6	54.44	90.91
2	1	9.09	100.00
Total	11	100.00	

In order to carefully study whether compulsory IFRS adoption is beneficial for Taiwanese public companies from managers' perspectives, a Wilcoxon signed-rank test (Wilcoxon, 1945) was conducted. If adopting a financial reporting regime is beneficial, it should yield a positive net utility. Referring to Section 5.2.1, since all net utilities are integers, a positive net utility must be a net utility equal to or greater

than unity. Hence, the hypotheses tested here are as follows and the test result can be found in Table 8.2. The signs of this test and the corresponding range of net utilities (refer to column 1 of Table 8.1) are shown in column 1 and 2 of Table 8.2, respectively.

H_{0a}: Adopting IFRS leads to a positive net utility (i.e., net utility >0 → net utility ≥ 1).

H_{1a}: Adopting IFRS does not lead to a positive net utility (i.e., net utility ≤ 0 → net utility <1).

Table 8.2: Wilcoxon Signed-Rank Test of the Net Utility (Taiwanese Publicly Listed Firms)

Sign	Net Utilities (B-C)	Observations	Sum Ranks	Expected
+	B-C ∈ {2, 3, 4}	1	4	33
-	B-C ∈ {-4, -3, -2, -1, 0}	10	62	33
0	B-C ∈ {1}	0	0	0
All		11	66	66

unadjusted variance	126.50	H_{0a}: net utility ≥ 1
adjustment for ties	-7.50	H_{1a}: net utility <1
adjustment for zeros	0.00	z = -2.658
adjusted variance	119.00	prob. = 0.0040

Table 8.2 indicates the *p* value of the Wilcoxon signed-rank test was 0.0040. This rejected the null hypothesis that adopting IFRS led to a positive net utility, with strong evidence at the 1% significance level. The finding suggests, at least for the sample used, that Taiwanese public firms do not experience additional advantages from compulsory IFRS adoption, from managers' perspectives. A Cox and Stuart test was used to check the robustness of the above result, and a *p* value of 0.0059 was

generated. Hence, there was also supporting evidence, at the 1% significance level, for rejecting the null hypothesis that the median of Taiwanese public firms' net utilities of adopting IFRS was equal to or greater than unity, for our sample. The result also led to the same conclusion as the above test, and showed that, from managers' viewpoints, sampled Taiwanese public firms do not perceive net benefits from adopting IFRS. Under these circumstances, some Taiwanese public firms might not adopt IFRS voluntarily when considering the adoption costs and benefits.

Secondly, the following paragraphs explore Taiwanese public firms' ratio utilities of adopting IFRS. As exhibited in Table 8.3, the ratio utility of unity appeared most frequently (six firms). Four firms had ratio utilities less than unity and one firm had a ratio utility greater than one. This distribution was almost the same as that of Taiwanese public firms' net utilities. Similar to UK cases, there were more unbeneficial cases (B/C < 1) than beneficial cases (B/C > 1) in the Taiwanese sample.

Table 8.3: Frequencies of Taiwanese Public Firms' Ratio Utilities (Benefits ÷ Costs) of Adopting IFRS

Ratio Utility	Frequencies	Percent	Cumulative Percent
0.50	1	9.09	9.09
0.67	1	9.09	18.18
0.75	2	18.18	36.36
1	6	54.55	90.91
2	1	9.09	100.00
Total	11	100.00	

Like the case of the net utility, a Wilcoxon signed-rank test (Wilcoxon, 1945) was used to scrutinise whether adopting IFRS is beneficial for Taiwanese public firms in

terms of the ratio utility. If reporting under IFRS is beneficial for firms, it should bring a ratio utility greater than unity. As discussed in Section 5.2.2, the range of ratio utilities is {[0.2, 0.8], 1, [1.25, 5]}. Hence, if a ratio utility is greater than unity, it will be equal to or greater than 1.25. The following shows the null hypothesis and the alternative hypothesis for the Wilcoxon signed-rank test. The result of this test is summarised in Table 8.4. Furthermore, Column 1 and 2 of Table 8.4 show the signs of this test and the relevant ratio utilities.

H_{0b}: Adopting IFRS leads to a ratio utility greater than unity (i.e., ratio utility > 1 → ratio utility ≥ 1.25).

H_{1b}: Adopting IFRS does not lead to a ratio utility greater than unity (i.e., ratio utility ≤ 1 → ratio utility <1.25).

Table 8.4: Wilcoxon Signed-Rank Test of the Ratio Utility (Taiwanese Publicly Listed Firms)

Sign	Ratio Utilities (B/C)	Observations	Sum Ranks	Expected
+	B/C ∈ (1.25, 5]	1	10.5	33
-	B/C ∈ {[0.2, 0.8], 1}	10	55.5	33
0	B/C ∈ {1.25}	0	0	0
All		11	66	66

unadjusted variance	126.50	H_{0b}: ratio utility ≥ 1.25
adjustment for ties	-4.63	H_{1b}: ratio utility < 1.25
adjustment for zeros	0.00	z = -2.038
adjusted variance	121.88	prob. = 0.0208

It can be observed in Table 8.4 that positive signs were far lower than expected and negative signs were far higher than expected. The *p* value of the Wilcoxon signed-rank test was 0.0208, and the null hypothesis that adopting IFRS led to a ratio

utility greater than unity was rejected at the 5% significance level. A Cox and Stuart test was also conducted to assess the robustness of the above result. A *p* value of 0.0059 was acquired from the Cox and Stuart test, and this provided strong evidence to reject the null hypothesis that the median of the ratio utility of adopting IFRS was greater than or equal to 1.25, at the 1% significance level. As with the finding from testing net utilities, the results of testing ratio utilities presented that sampled Taiwanese public firms did not perceive adopting IFRS as beneficial, from management's point of view. Referring to the discussion in Section 5.2, sampled UK firms did not experience additional advantages of adopting IFRS either. Therefore, some UK and Taiwanese publicly listed firms might not report under IFRS if this adoption were not compulsory. The result is consistent with that of Jermakowicz and Gornik-Tomaszewski's (2006) survey in 2004, whose research target was listed companies in the EU. It also shows that a tied accounting choice may not always be the best option for companies. The finding of this thesis provides new evidence regarding mandatory IFRS adoption by using new data and research instrument, and supports the argument that a significant number of companies might not adopt IFRS voluntarily. Of course there may be disadvantage perceived by managers, this does not suggest the necessary disadvantage for the entire economy (Gwilliam et al., 2005; Schipper, 2010).

8.3 Compulsory IFRS Adoption in Taiwan: Case Studies

The previous section shows that, from managers' perspectives, sampled Taiwanese public firms do not regard adopting IFRS as beneficial using nonparametric tests. Following Chapter 6 which illustrates the impact of compulsory IFRS adoption on

UK firms and how they weigh costs and benefits, this section studies Taiwanese cases to further discover these firms' views behind the rankings of adoption costs and benefits of IFRS (Cooper & Morgan, 2008; Otley & Berry, 1994; Scapens, 1990). It also investigates whether the adoption costs and benefits of IFRS influence their decisions on whether to adopt IFRS early from 2012. Following Chapter 6, this section explores Taiwanese pubic firms with various net utilities of adopting IFRS, including negative, zero, and positive net utilities. The quantitative analysis and qualitative analysis together will provide more complete information regarding financial reporting choices (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009).

8.3.1 Public Companies TA and TB: negative net utility of adopting IFRS

First of all, two Taiwanese firms with negative net utilities of adopting IFRS are scrutinised. Company TA is a Taiwanese publicly listed firm founded in the late 1970s. It supplies solutions related to computers and switches, and aims to improve their efficiency. It belongs to the information technology (IT) industry. It is a large firm with more than 600 employees. Although most of its costs were incurred in Taiwan (51% of the total costs) and China (48% of the total costs), its markets were very diversified. Sales take place across Asia (45.6%), Europe (27.3%), America (25%), and other markets (2.1%). The latest R&D expenditure of this company is around £7.5 million, which accounts for 12.2% of its total sales. This shows that R&D is the core for this high-tech firm. Regarding organisational structure, Company TA gives individuals moderate authority to make decisions, but it is more frequent that teams make decisions. It has a medium level of hierarchy in salary

allocation, but a high level of hierarchy in organisational structure. The strong hierarchy is often seen in large companies (Stein, 2002; Zenger & Hesterly, 1997). However, Company TA is relatively small, compared to other large enterprises. This might be the reason why its salary distribution is moderately, rather than highly, hierarchical.

Company TA is an ultimate parent company which used to report under ROC GAAP. It is required to adopt IFRS for consolidated and parent's individual accounts from 2013 because of its public accountability. It was also given the option to adopt IFRS early from 2012. The respondent of Company TA indicated that they did consider whether the early adoption of IFRS is beneficial at that time. Since they did not perceive net benefits of adopting IFRS, they chose not to do it. In addition, the interviewee pointed out that IFRS is a new regime, and the company needs time to understand it. However, they did not have enough time to do so. This made the early adoption even more difficult.

The interviewee added that some firms, which issue Depositary Receipts[7] (DRs) or have investment properties, might find adopting IFRS beneficial and would like to adopt it earlier. Firms, which issue DRs, are used to change their financial reports from ROC GAAP version to IFRS version because most of countries adopt IFRS. Doing so helps to attract foreign investors (DeFond, Hu, Hung, & Li, 2011). Hence, these firms could save the costs of changing financial reports if they report under

[7] According to Miller (1999, pp. 105-106), "A DR is a negotiable certificate issued by a depositary bank for a number of non-U.S. securities that are held by the depositary's custodian in the home market of the non-U.S. company. DRs are registered with the SEC and trade like any other U.S. security. […] DRs traded outside the U.S. are called Global Depositary Receipts (GDRs)."

IFRS right from the beginning. Furthermore, IFRS allows companies to value investment properties using the fair value approach. Since the cost approach, which firms apply under ROC GAAP, is very different from the fair value approach, some firms might enjoy the advantage of using the fair value approach and tend to report under IFRS from 2012 (Cairns et al., 2011). Nevertheless, Company TA does not issue DRs and does not have investment properties either. Therefore, it does not receive the above benefits of applying IFRS, and decided not to adopt IFRS early. This case demonstrates that a firm's accounting choices are associated with their specific characteristics (e.g., whether it aims to enter foreign capital markets, and what its investments are). The respondent of Company TA also mentioned that external consultants help them during the process of evaluating costs of the early adoption.

In terms of adoption costs, the interviewee stated that ROC GAAP is a straight forward regime, which lists how companies should prepare financial reports in detail. Nonetheless, IFRS is a flexible regime which requires more judgement (Ball, 2006; Collins et al., 2012). This implies additional time and costs. Moreover, companies have more responsibilities under IFRS, such as liability reserve and warranty provisions which take a considerable amount of time to evaluate.

The above discussion is consistent with Company TA's stated costs and benefits (subjectively measured by the manager) of adopting IFRS, which are high (4) and low (2), respectively. For Company TA, the IFRS adoption led to a negative net utility (-2). Since this firm perceives adopting IFRS as unbeneficial, it would not want to adopt IFRS early from 2012. According to the respondent, this company often weigh costs against benefits when choosing financial reporting regimes. The

measurement is based on previous experiences with the help of calculations. The result proves that the stated preference approach is useful to obtain firms' perceived costs and benefits, and cost-benefit analysis is helpful to understand companies' accounting decisions.

Another Taiwanese public firm, Company TB, also perceived a negative net utility of adopting IFRS. Company TB is a chip design firm with more than 1000 employees. It was founded in the 1990s. It is a R&D intensive company and its R&D/sales ratio is greater than 10%. This firm has all its sales in Asian markets (33% in Taiwan, 46% in China, 21% in other Asian markets). Since this company is based in Taiwan, 80% of its costs were incurred in Taiwan.

When being asked about the option to adopt IFRS early from 2012, the respondent of Company TB stated that there is no benefit in early adoption. She explained that since the company does not issue global DRs, it will not have the benefit of using the same financial reporting regime as firms in other countries (DeFond et al., 2011). The respondent of Company TA also shared the same opinion. Furthermore, the interviewee of Company TB mentioned that if they want to adopt IFRS early, they will have to apply for it. This will make the time of conversion even shorter. Therefore, like the situation in Company TA, there is not enough time for Company TB to adopt IFRS early. The respondent of Company TB also indicated that since early adoption is only one year earlier, it will not make a big difference from normal adoption from 2013. Additionally, she pointed out that most of companies do not adopt IFRS early. If Company TB chooses to adopt IFRS early, the basis of financial reports will be different from the competitors'. This may confuse the readers of the

financial reports (De Franco, Kothari, & Verdi, 2011). Because of the above reasons, Company TB decided not to adopt IFRS from 2012.

The respondent of Company TB also said that the company does consider the costs and benefits when choosing regimes and techniques. It considers techniques under each regime to determine which regime is better for the company. She pointed out that the company uses experiences and calculations to weigh adoption costs and benefits. She ranked the adoption costs and benefits of IFRS as medium (3) and low (2), respectively. She also stated the adoption costs and benefits of ROC GAAP, the regime the firm adopted before compulsory IFRS adoption, are both low (2). It can be observed that ROC GAAP and IFRS have the same level of adoption benefits (low). Nonetheless, the adoption costs of IFRS are higher than those of ROC GAAP. In this situation, Company TB would not like to adopt IFRS, which yielded worse net (-1) and ratio utilities (0.67) than ROC GAAP. It is understandable that the firm refused the early adoption of IFRS, which is even more disadvantageous because early adoption means shorter preparation time and lower comparability of financial reports with other firms. Again, the stated costs and benefits help to explain companies' behaviours in financial reporting.

8.3.2 Public Companies TC and TD: zero net utility of adopting IFRS

The previous section studies Taiwanese companies with negative net utilities of adopting IFRS. Those firms do not perceive benefits of using IFRS. It is more difficult for them to adopt IFRS earlier because of the limited time and the comparability across firms. This section discusses Taiwanese firms with zero net utilities of adopting IFRS, to discover whether firms' attitudes toward the early IFRS

adoption would be different. Take Company TC as an example, which is a large manufacturer that emphasises parts associated with computers and consumer electronics. It was founded in the 2000s. More than third quarters of its sales and costs occurred in China, and around 10% of the total sales and costs came from Taiwan. Institutional investors hold half of the ownership, and insiders hold about 40% of the ownership. Furthermore, Company TC permits high authorities in teams and individual decision-making.

Since Company TC is a publicly listed firm, it must adopt IFRS from 2013 onwards, but it could choose whether to adopt IFRS early from 2012. Company TC did not adopt IFRS early. Its respondents indicated that the company would prefer to continue using ROC GAAP if they had a choice. Because the company has used ROC GAAP for a long period of time, investors who used to read financial results reporting under ROC GAAP will not be familiar with IFRS. Additionally, it is simpler to calculate financial ratios under ROC GAAP. The format of financial reports under IFRS is different from that under ROC GAAP, and it makes the calculations more difficult. The results show that Company TC preferred the status quo particularly when it did not perceive net benefits from changing its regime (Messier et al., 2014). Moreover, the interviewees mentioned that if the company wants to adopt IFRS early, it has to provide the comparison report involving IFRS and ROC GAAP. This implies that the company has to prepare financial reports using both ROC GAAP and IFRS. In that case, there would be too much work and additional costs for the company.

The respondents of Company TC pointed out that the company did evaluate the adoption costs and benefits when considering early adoption. They weighted the

costs and benefits subjectively, and ranked both the adoption costs and benefits of IFRS as medium. The interviewees said that the major costs of using IFRS are the transition costs. After the transition period, the adoption costs of IFRS and those of ROC GAAP were similar. The stated adoption costs and benefits of Company TC show that there is no obvious incentive for the firm to adopt IFRS. Since the early adoption which requires more work and therefore more costs is even less attractive, Company TC decided not to adopt IFRS early.

Like Company TA and Company TB, Company TC does not see benefits of using IFRS at present. However, the interviewees of Company TC stated that there might be long-term benefits. They added that when the company wants to trade abroad or issue DRs in foreign markets, it does not need to adjust the financial reports to comply with IFRS. Hence, using IFRS might be more convenient for Company TC to attract investors (DeFond et al., 2011; Hope, Jin, & Kang, 2006). Different from Company TA and Company TB, which do not expect to issue global DRs and cannot receive this benefit, Company TC recognises the long-term benefit of adopting IFRS. This might be one of the reasons why Company TC perceives a better net utility from adopting IFRS (a zero net utility), compared to Company TA and Company TB with negative adoption net utilities of IFRS. This result implies that a company's target capital markets will influence its attitudes towards accounting modes. When its focus shifts (e.g., from the local to the international capital market), it may view an accounting regime differently.

Another case also presents that, to some degree, firms with zero net utilities of adopting IFRS might perceive more gross benefits of using IFRS than firms with negative net utilities. For instance, Company TD is a Taiwanese bank which has a

zero net utility of adopting IFRS. It is a large publicly listed firm. More than 90% of its sales were generated in Taiwan. Around half of the ownership is held by foreign capital. As often seen in large firms, the salary distribution and organisational structure of Company TD are highly hierarchical (Stein, 2002; Zenger & Hesterly, 1997).

The respondent of Company TD remarked that the company does not adopt IFRS early because there is not enough time to rearrange resources and receive relevant training for the transition. He also mentioned that the early adoption is only one year earlier. Like what the respondent of Company TB said, this suggests that early adoption will not make a substantial difference from normal adoption. Furthermore, the interviewee of Company TD indicated that there is no incentive to adopt IFRS early. He explained that at that time the regulation was not clear yet. There were several controversies about the applicability of EU-IFRS, such as the treatment of preferential deposit interest rate for bank employees when banks calculating pensions. The authority was still discussing these issues with relevant industries.

The respondent of Company TD stated that the adoption costs and benefits of IFRS are both high, and costs and benefits are weighed by judgement based on experience. Like Company TC, Company TD addressed that the adoption costs and benefits of IFRS in the post-transition period are similar to those of ROC GAAP. He added that the main costs of adopting IFRS are the transition costs, including the advising costs from accountants. Since the adoption costs and benefits of ROC GAAP and IFRS are close, and adopting IFRS generates a zero net utility, it is understandable that company does not have incentive to adopt IFRS early, particularly when taking the constrained time and uncertain regulations into account.

Nevertheless, like Company TC, Company TD does perceive gross benefits of applying IFRS. As pointed out earlier, foreign capital holds a high portion of the firm's shares. Hence, using IFRS might increase the transparency of financial reports (Singleton-Green, 2015). It would also be easier for the foreign investors to understand the performance of Company TD because IFRS is widely adopted in global markets (DeFond et al., 2011; Hope et al., 2006). The results show that firms with zero net utilities of adopting IFRS tend to perceive certain benefits, while firms with negative net utilities often do not recognise adoption benefits of IFRS. This also shows that stated preference theory is helpful to capture companies' preferences towards accounting modes.

8.3.3 Public Company TE: positive net utility of adopting IFRS

This section focuses on a publicly listed firm with a positive net utility of adopting IFRS, to explore why it perceives net benefits from using IFRS and to examine whether this affects its preference towards the early adoption of IFRS. Company TE is a public firm that was founded in the early 2000s. It is a medium-sized company with slightly more than 50 employees, and operates an online community platform. This Taiwan-based information technology company currently emphasises Taiwanese market, and 95% of its sales and costs occurred in Taiwan. It has a flat organisational structure, which matches the low level of hierarchy in salary determination. This also reflects the size of this company.

The respondent of Company TE ranked the adoption costs and benefits of IFRS as low (2) and high (4). This outcome leads to a positive net utility of using IFRS. The interviewee explained that the high adoption benefits of IFRS come from the

advantage of attracting investors, and the company recognises that the adoption costs of IFRS are higher than those of ROC GAAP. He added that adopting IFRS is the trend. It is important to use the same accounting regime as others if they want to attract more investors. Compared to companies with negative net utilities of adopting IFRS, Company TE perceives a higher level of adoption benefits through using IFRS as an approach to bring further investments.

Regarding the choice of early IFRS adoption, the interviewee of Company TE said that they decided not to adopt IFRS early after discussing with their accountants. He illustrated that since the business items of the company were simple, there was no big difference between using IFRS and ROC GAAP. Furthermore, the firm was very familiar with applying ROC GAAP and preferred to keep reporting under this regulation because it did not see the benefit of using IFRS. This finding shows that the status quo is an attractive option for this company (Messier et al., 2014). Additionally, there were very few companies which adopted IFRS early from 2012. This result presents the significance of comparability across corporations again, as seen in the case of Company TB (De Franco et al., 2011).

From the above two paragraphs, it seems Company TE's opinion about early adoption of IFRS is very different from the current perception of adopting IFRS, which yields a positive net utility. This outcome shows the company's attitudes change over time, and might be related to the plan adjustment of Company TE. During the interview, the respondent of Company TE indicated that the company was an individual firm before the first quarter of 2013. From the second quarter of 2013, the company starts to set up consolidated accounts because it has a subsidiary in Hong Kong. Presently, Company TE also has a joint venture with a foreign company.

The above descriptions show this Taiwan-based company starts to expand and seek markets overseas. Under these circumstances, adopting IFRS becomes more beneficial because it helps in attracting foreign investors (DeFond et al., 2011; Hope et al., 2006). This might be the reason why Company TE did not perceive benefits when considering the early adoption of IFRS before 2012, but does observe high adoption benefits of IFRS now.

To summarise Section 8.3, the results show that stated preference theory is helpful to capture companies' preferences towards financial reporting regimes, and cost-benefit analysis is useful to understand firms' consideration in accounting decisions. For example, sampled firms, which perceive net benefits from adopting IFRS, tend to have a higher level of net utilities which are derived from their stated adoption costs and benefits. Moreover, these cases show that when determining whether to adopt IFRS early, sampled Taiwanese public firms often consider: (1) adoption costs and benefits, (2) comparability across firms, (3) preparation time, and (4) the time difference between early adoption and normal adoption. These firms evaluated whether there is large benefit of the early adoption. They also look at other companies' decisions. Since only few companies chose to adopt IFRS early, interviewed firms are not inclined to do so either. This is also due to keeping their financial reports consistent with other firms'. Furthermore, the early adoption implies shorter preparation time. Many of the firms in our sample indicated that there was not enough time for them to complete the transition even if they would like to adopt IFRS from 2012. Additionally, the early adoption is only one year earlier. Several firms mentioned that a year will not make a big difference between early adoption and normal adoption.

Section 8.3 shows that sampled firms, with various net utilities of adopting IFRS, have different levels of incentives to adopt IFRS. However, since the early adoption is less attractive for the above reasons, these firms chose not to adopt IFRS early. This outcome also suggests that only firms sensing large benefits of applying IFRS will adopt it from 2012, earlier than most of companies.

8.4 Choices over Financial Reporting Techniques

The earlier sections of this chapter emphasise Taiwanese firms' opinions about financial reporting regimes. Building on Section 5.3, which discusses UK firms' technique decisions, this section explores Taiwanese firms' technique choices. The results in Section 5.3 show that UK firms' choice behaviour in financial reporting technique is often in accordance with cost-benefit analysis, and the usefulness of a stated preference approach in this area. Therefore, this section aims to investigate whether Taiwanese firms' technique choices can be explained by the stated preference costs and benefits, and whether their rationale behind technique choices is different from UK firms'. As with Section 5.3, this section focuses on techniques for valuing intangibles, recognising development costs, and valuing investments.

8.4.1 Techniques for Valuing Intangibles: Company TC and Company TF

This section studies Taiwanese firms' technique choices in valuing intangibles. As pointed out in Section 5.3.1, firms normally are allowed to select the cost approach, income approach, or market approach when valuing intangibles (Matsuura, 2004; Park & Park, 2006). The respondents of Company TC addressed that the company can choose the above three techniques. The interviewee of Company TF stated that

the firm is only permitted to use the market approach and the income approach because of the category of intangibles. Their net utilities and ratio utilities of adopting various techniques for valuing intangibles are summarised in Table 8.5.

Table 8.5: Taiwanese Companies' Net Utilities and Ratio Utilities of Using Various Techniques for Valuing Intangibles

Techniques for Valuing Intangibles		Adoption Cost	Adoption Benefit	Ratio Utility (Benefit ÷ Cost)	Net Utility (Benefit - Cost)
Company TC	Cost Approach*	Low (2)	Medium (3)	1.5	1
	Income Approach*	High (4)	Medium (3)	0.75	-1
	Market Approach	High (4)	Medium (3)	0.75	-1
Company TF	Income Approach*	Low (2)	Medium (3)	1.5	1
	Market Approach	Medium (3)	Low (2)	0.67	-1

Note: Companies' choices are indicated by *

Company TC is a large public manufacturer. It could freely choose from the cost approach, income approach, or the market approach for valuing intangibles. It applies both the cost and income approach. The respondents of Company TC elaborated their process of choosing as follows: They first look at the characteristics of intangibles, and decides what methods are appropriate. Amongst the suitable techniques, they choose the one that is easier to use.

The interviewees pointed out that the company uses the cost approach to value software because the other approaches are not suitable in this situation. From Table 8.5, it can be observed that the cost approach generates better net and ratio utilities of

adoption than the other approaches. Thus, the company's decision is rational in terms of costs and benefits. Nevertheless, the company also uses the income approach when valuing goodwill. Compared to the cost approach, the income approach has worse net and ratio utilities. Therefore, the company choice here is hard to be justified by the stated costs and benefits. The respondents of Company TC clarified that the valuation of goodwill requires the impairment evaluation and hence the market approach and income approach are more suitable. The company chooses the income approach because it is easier to apply than the market approach. This result suggests that sometimes firms will give up the technique with better utilities if the approach does not suit the condition. Similar situation can be seen in the case of UK Company D's technique choices for valuing investments (Section 5.3.3). Since the income approach and the market approach yield the same adoption net utility and ratio utility, it might be argued that Company TC is rational to some extent.

The following paragraphs discover another Taiwanese firm's technique choices for valuing intangibles. Company TF is a private high-technology firm which has less than 10 employees. Its intangibles are patents. This firm uses the income approach to value them. The interviewee of the company remarked that they believe the income approach can reflect the true value of patents, and this can be regarded as a benefit for the good internal control. She added that the market approach will only be applied when the company plans to sell its patents. Since it has not started the sales, the income approach is more appropriate. The explanation is consistent with the results shown in the last two rows of Table 8.5. For Company TF, the income approach leads to a positive net utility (1) and a ratio utility greater than unity (1.5), and they are better than those of the market approach. Furthermore, Company TF's

choice behaviour is reasonable, regarding the adoption costs and benefits, because it adopts the income approach which has better adoption net and ratio utilities.

8.4.2 Techniques for Treating Development Costs: Company TA and Company TB

Following Section 5.3.2, which included UK firms' treatment of development costs, this section discovers how Taiwanese companies choose techniques for treating development costs. Same as UK firms, Taiwanese firms have to consider whether development costs should be recognised as assets or expenses (Luft & Shields, 2001; Sahut et al., 2011; Tsoligkas & Tsalavoutas, 2011). Two Taiwanese firms are illustrated here. Table 8.6 exhibits their stated costs and benefits, and utilities of various techniques for treating development costs.

Table 8.6: Taiwanese Companies' Net Utilities and Ratio Utilities of Using Various Techniques for Treating Development Costs

Techniques for Treating Development Costs		Adoption Cost	Adoption Benefit	Ratio Utility (Benefit ÷ Cost)	Net Utility (Benefit - Cost)
Company TA	Treat as expenses*	Zero (1)	Low (2)	2	1
	Treat as assets	Medium (3)	Medium (3)	1	0
Company TB	Treat as expenses*	Low (2)	Medium (3)	1.5	1
	Treat as assets	Medium/ High (3.5)	Low (2)	0.57	-1.5

Note: Companies' choices are indicated by *

Firstly, Company TA is a large public firm in the IT industry. Its respondent stated that the company could recognise development costs as expenses or assets, but it

tends to treat them as expenses. She said that expensing is more beneficial than capitalising, which requires more costs for evaluations afterwards. This statement is consistent with Company TA's perceived adoption costs and benefits. From the first two rows of Table 8.6, it can be found that the adoption costs of expensing (zero) and those of capitalising (medium) are very different. It is much more costly to recognise development costs as assets. It turns out that recognising development costs as expenses brings a positive net utility (1) and a ratio utility greater than unity (2), which are better than the net and ratio utilities of treating development costs as assets. In this situation, the expensing approach is beneficial in both absolute and relative terms. Therefore, it is rational for Company TA to choose the expensing method, from the perspective of cost-benefit analysis.

Secondly, Company TB is a chip designer. It is a large-sized public firm. The interviewee of the company indicated that they are inclined to recognise development costs as expenses, although they have the option to capitalise these costs. She elaborated that the company has many small R&D projects, rather than few large cases. Hence, it is very costly to recognise development costs as assets, compared to the expensing. Furthermore, the regulation of recognising development costs as assets is strict, and the risk of capitalising is also higher. In the beginning of the R&D, there are many uncertainties. It is very hard to estimate whether relevant costs will become assets in the future, and is difficult to provide evidence to support this argument. Valuing assets which result from the R&D projects is also challenging. If the company needs to adjust the value of assets afterwards, there might be additional costs.

The above statements are consistent with Company TB's perceived costs and benefits, which are shown in the last two rows of Table 8.6. The adoption costs of capitalising are between medium and high, which are higher than those of expensing. Recognising development costs as expenses leads to a positive net utility (1) and a ratio utility greater than unity (1.5). However, recognising these costs as assets yields a negative utility (-1.5) and a ratio utility less than unity (0.57). It can be argued that Company TB's behaviour is reasonable because it elects the technique (i.e., expensing) which generates better net and ratio utilities.

8.4.3 Techniques for Valuing Investments: Company TC and Company TG

Building on Section 5.3.3, which emphasises UK firms' technique choices for valuing investments, this section discusses Taiwanese companies' decisions in this area. Like UK firms, Taiwanese firms generally could use the market approach, fair value approach, and cost approach to value investments (Carroll et al., 2003; Khurana & Kim, 2003). The following explores technique choices for valuing investments of two Taiwanese firms. Their perceived costs and benefits of implementing different methods to value investments can be found in Table 8.7.

Table 8.7: Taiwanese Companies' Net Utilities and Ratio Utilities of Using Various Techniques for Valuing Investments

Techniques for Valuing Investments		Adoption Cost	Adoption Benefit	Ratio Utility (Benefit ÷ Cost)	Net Utility (Benefit - Cost)
Company TC	Market Value*	Medium (3)	Medium (3)	1	0
	Fair Value	High (4)	Medium (3)	0.75	-1
	Cost Approach*	Low (2)	Medium (3)	1.5	1
Company TG	Fair Value*	Medium (3)	High (4)	1.33	1
	Cost Approach	Zero (1)	Medium (3)	3	2

Note: Companies' choices are indicated by *

Firstly, Company TC, a large manufacturer, applies the market value approach and the cost approach to value investments. The respondents of Company TC described that when faced with the technique choice, they first looked at characteristics of investments to decide suitable treatments, and then chose the simpler way from the appropriate techniques. The same decision making process could also be seen when Company TC determined the technique for valuing intangibles (see Section 8.4.1).

The interviewees of Company TC addressed that the company tends to adopt the cost approach when valuing investment properties because using other approaches needs subsequent appraisals, which imply additional costs. This description is consistent with Company TC's stated costs and benefits. As presented in the first three rows of Table 8.7, the adoption costs of the cost approach is low, and lower than those of the market value approach (medium) and the fair value approach (high). Since the cost approach is more beneficial than other two techniques in terms of net and ratio

utilities, Company TC' choice regarding techniques for valuing investment properties is rational.

The respondents of Company TC further indicated that the firm implements the market approach to conduct subsequent evaluations of other companies' shares. They remarked that the cost approach is not suitable for the subsequent evaluations and the fair value approach is difficult to use. As mentioned earlier in this section, Company TC often considers the fitness of techniques first, and then evaluates the adoption costs and benefits. Hence, Company TC rejects the cost approach with better net and ratio utilities and elects the market value approach because of the suitability of techniques. When facing the choice between the market value approach and the fair value approach, Company TC chooses the market value approach. This approach has the same level of adoption benefits as the fair value approach, but is with lower adoption costs. It can be argued that Company TC still applies cost-benefit analysis in the decision-making process, but only after taking the fitness of various techniques into account.

Secondly, Company TG is a telecommunications company based in Taiwan. It is a public listed firm with around 7,000 employees. It is an intermediate parent company. All of its sales and costs came from the Taiwanese market. Its salary allocation and the organisational structure are very hierarchical, and this is very common for a large enterprise as Company TG (Stein, 2002; Zenger & Hesterly, 1997). The respondent of Company TG stated that the company can use the cost and fair value approach to value investments. She pointed out that the company could only use the cost approach to value investments before. From 2014, the authority permits companies to implement the cost approach and the fair value approach. Since its ultimate parent

company decides to adopt the fair value approach, Company TG uses the same approach to value investments now. The group believes that the fair value approach helps to truly reflect the value of investment properties. Therefore, the numbers will be more precise, and be consistent across different divisions of the group.

From the last two rows of Table 8.7, it can be noted that the fair value approach does have higher adoption benefits (high) than the cost approach (medium adoption benefits). This is consistent with the interviewee's statement that the company perceives several benefits from implementing the fair value approach. Nonetheless, the adoption costs of the cost approach (zero) are lower than those of the fair value approach (medium). It turns out that the cost approach has greater net and ratio adoption utilities than the fair value approach. Company TG does not choose the technique with better utilities, and its decision cannot be explained solely by the stated costs and benefits. The results suggest that sometimes a member of a group might adopt a technique with lower adoption utilities to maintain the consistency within the group, which would benefit the group as a whole (Boojihawon et al., 2007; Yazdifar et al., 2008). It can also be argued that a firm might give up a technique (e.g., the cost approach in this case) with better utilities but lower (gross) adoption benefits, and choose another technique (e.g., the fair value approach in this case) to enjoy the high (gross) benefits.

8.5 Two-Stage Choice Model

Section 8.2 and Section 8.3 discuss Taiwanese firms' opinions about financial reporting regimes. Section 8.4 studies Taiwanese firms' choices over financial reporting techniques. In order to enhance our understanding of companies' choice

behaviour in accounting, literature indicates the importance of accommodating several choices at the same time (Fields et al., 2001). Therefore, following Chapter 7, which explores UK firms' decision making processes in accounting, this section investigates how Taiwanese firms determine their financial reporting modes, using a two-stage choice model established in Chapter 3. In the following, four Taiwanese cases are elaborated.

8.5.1 Private Company TF and Public Company TB: Sequential Choice (Lexicographic Ordering)

Firstly, Company TF is a private firm, which mainly provides services related to chips, such as testing and designing. It was founded around five years ago. Its firm size is very small with fewer than 10 employees. Presently, Taiwanese private firms can only adopt ROC GAAP and do not have other options of financial reporting regime. However, the authority plans to introduce IFRS for SMEs in the near future (Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C., 2012). It is still uncertain whether ROC GAAP will be replaced by IFRS for SMEs, or will still be enforced as an option for private firms. However, Taiwanese private firm do have choices over techniques.

When being asked about how the company will choose its accounting modes if both regime and technique choices are available, the respondent of Company TF addressed that they will choose the regime first, and then elect techniques. She added that the comparability of financial reports across firms is very important (De Franco et al., 2011). Therefore, if they have regime choices, they will first choose the regime which most of companies implement. This decision process is sequential, and could be expressed by the lexicographic ordering (refer to Chapter 3) (Colman & Stirk,

1999; Houy & Tadenuma, 2009). It implies that Company TF considers regime choices before comparing the adoption utilities of techniques.

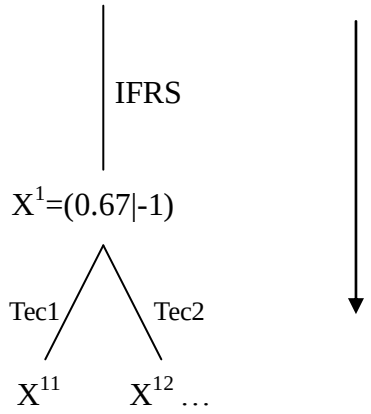
The interviewee of Company TF further explained that the above choice pattern results from the expectation of the company to be purchased in the future. The firm is very eager to follow the mainstream, and to use the same regime as its competitors and potential parent company. Hence, its financial reports can be compared on the same basis, and the treatment will be the same as others'. This case shows that when the regime choice is more important than the technique choice, a firm will apply the lexicographic ordering (Birnbaum, 2010; Colman & Stirk, 1999). The result is consistent with the conclusion of UK case studies (see Chapter 7). This case also demonstrates that Company TF's future plan (i.e., to be acquired by other firms) plays an important role in its choice behaviour in financial reporting, and in the sense that Company F emphasises the regime choice more and hence makes accounting decisions in a lexicographic order.

Regarding the characteristics of Company TF's decision-making process, the respondent of the company said that it is not complicated to prepare financial reports and make accounting decisions. Since the company is relatively young and is a high-technology service provider without manufacturing, it only needs to emphasise salary and advertisement expenses, and examine whether the amortisation of fixed assets is appropriate. Hence, there are few unexpected incidents. Additionally, the major risk is whether the company has enough cash flows. This situation is more common in a new company as Company TF, rather than in an older company (Brown, Fazzari, & Petersen, 2009). Furthermore, the company mainly depends on an accountant to update new accounting policies because the information supplied by

the government is limited. Moreover, the decision-making and the preparation of financial reports of Company TF are subject to moderate time pressure. Company TF's focus on the management of cash flows and its dependence on auditors in decision-making might be related to its small firm size and young age, which might therefore have an impact on its accounting choices.

Secondly, how Company TB behaves in the two-stage choice model is discussed in the following. Company TB is large chip designer. As a publicly listed company in Taiwan, it is required to adopt IFRS as its financial reporting regime since 2013. Thus, Company TB does not have regime choices. Its respondent stated that the company can only adopt IFRS first, and then choose techniques because of the regulation. In this situation, the firm's choice is sequential and can be formally expressed by the lexicographic ordering (Colman & Stirk, 1999; Houy & Tadenuma, 2009). The decision tree of Company TB from 2013 onwards is shown in Figure 8.1, where ratio utilities and net utilities are given respectively in the parentheses.

Figure 8.1: Decision Tree of Taiwanese Private Company TB (From 2013)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities.
(2) The arrow indicates the decision-making process.

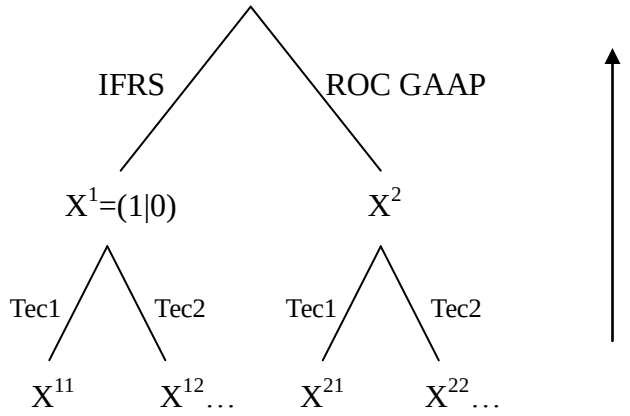
Different from the staged decision-making process of Company TF, which is voluntary adopted, Company TB is forced to use this sequential method. This case shows that sampled firms' ownership (i.e., private or public) and accounting regulations will influence their choice patterns in the two-stage choice model. According to the interviewee of Company TB, the company normally evaluate key aspects, including profit (or loss), R&D and M&A, when determining financial reporting modes. In addition, she also pointed out that the comparability across firms is important for making accounting choices (De Franco et al., 2011). Therefore, if it were not for the regulation, Company TB might not choose the regime without scrutinising techniques. As the discussion in Chapter 7, compulsory adoption of IFRS might also transform Taiwanese firms' utilities of financial reporting regimes. Since violating the regulation will result in substantial costs, IFRS turns out to be the regime with the highest utility, regardless of companies' original utilities.

Additionally, it can also be argued that when companies' accounting choices are constrained, such as when they face mandatory IFRS adoption, the two-stage choice will be reduced to a one-stage choice. As observed in Figure 8.1, Company TB has only one regime option (i.e., IFRS). In fact, it faces a one-stage choice problem of financial reporting techniques.

8.5.2 Public Company TG: Sequential Choice (Colexicographic Ordering)

Company TG is a Taiwan-based telecommunications company. It is an intermediate parent company with large firm size. As Company TB and other Taiwanese publicly listed firms, Company TG does not have regime choices now. Nevertheless, right before 2012, they could choose to adopt IFRS from 2012 (early adoption) or from 2013 (normal adoption) onwards. Therefore, at that time Company TG had both regime and technique choices. The interviewee of Company TG stated that the company made decisions in stages. She described that when facing the two types of choices, the company first looked at the impact of key items, such as the treatment of pensions. Then, it decided which regime, IFRS or ROC GAAP, is better. This decision-making process follows the colexicographic ordering, which implies that the company elects the technique with the maximum utility at this stage before considering the regime choice (Castano & Castano, 2012). The decision tree of Company TG in 2012 can be found in Figure 8.2, where the arrow indicates the colexicographic decision-making process of this company.

Figure 8.2: Decision Tree of Taiwanese Public Company TG (In 2012)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities. The adoption utilities of ROC GAAP were not available in this case.
(2) The arrow indicates the decision-making process.
(3) The key techniques for this company include the treatment of pensions.

The respondent of Company TG mentioned that the decisions are often supported by calculations. If there are different options, the accounting department will discuss the choices within the entire group, and will consult the accountant. The firm will perform calculations to support their evaluation. Then, the accounting manager will report the evaluation results to CEO for the final decision. One interesting finding of the interview is that the company also considered whether there is public relations (PR) effect if it adopts IFRS early. In that case, the company could claim that it is an innovative company, which implements the financial reporting standard widely adopted in global markets early. This might enhance the customers' and investors' impression of the brand. Company TG is the only firm in our sample mentioning the PR effect. Since the telecommunications industry is very competitive and changes rapidly, it is very important for a telecommunication company to keep updating the information and understand the trend of the world (Van Cuilenburg & Slaa, 1995).

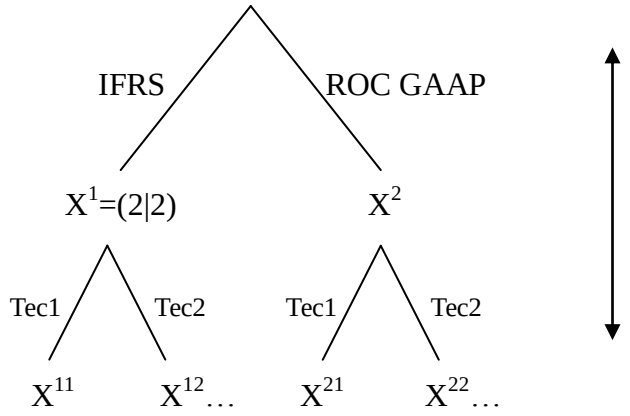
Furthermore, Company TG directly faces the public because of the nature of the business operations (Bauer, 1997; Van Cuilenburg & Slaa, 1995). Hence, the public impression of the company is crucial.

8.5.3 Public Company TE: Nested Choice

Company TE is a medium-sized public firm. It belongs to the IT industry. As a publicly listed firm, it is required to adopt IFRS since 2013 and hence does not have regime choices. However, it did have regime choices and technique choices when determining whether to adopt IFRS earlier, right before 2012. The respondent of Company TE addressed that the company tends to make the regime and technique choices together when it can choose freely. This is a nested decision-making process. The interviewee further explained that these two types of choices are important to each other, and the company often makes the decision as a whole. Since within a regime certain techniques are beneficial and the others are not, the firm examines techniques under each regime. The focus includes the treatment of revenue, profits, and shareholders' equity. Since the regulation about pensions is very different under ROC GAAP and IFRS, the company also paid attention to this area. Furthermore, the company prefers to use the same regime across the group to obtain the consistency. Hence, the same accounting treatments will be applied to transactions in different markets, such as in Singapore, Japan and Taiwan. The above statements show that the relative importance of regime choices and that of technique choices is not obvious. In this situation, Company TE makes accounting decisions simultaneously (Bellemare & Barrett, 2006). The result is consistent with the conclusion of UK studies in Chapter 7. Figure 8.3 shows the decision tree of Company TE in 2012. The

double arrow indicates that this company made regime and technique decisions simultaneously.

Figure 8.3: Decision Tree of Taiwanese Public Company TE (In 2012)



Note:
(1) Utilities are given in the parentheses. Ratio utilities are given first, followed by net utilities. The adoption utilities of ROC GAAP were not available in this case.
(2) The double arrow indicates the nested decision-making process.
(3) The key techniques for this company include the treatment of revenue, profits and shareholders' equity. Furthermore, ROC GAAP and IFRS have very different requirements regarding pensions, which plays an important role in this case. The consistency of financial reports is also crucial for this company.

In addition, the interviewee of Company TE indicated that the company does consider the adoption costs and benefits when deciding accounting modes. Most of the time, it uses quantitative data to weigh costs and benefits. It sometimes depends on accounting managers' judgement to make decisions. The respondent stated that the decision-making process is simple because the company operates internet businesses and does not have complicated transactions or derivate assets which need evaluation. Moreover, in this company, decisions are often made by group, and sometimes by individuals. Generally, CFO will discuss with the accountant,

accounting manager, and CEO. CFO normally makes the final decision after the discussion.

8.6 Summary and Discussion

This chapter discovers Taiwanese firms' choices in financial reporting, and examines parallel hypotheses and accounting choices as the UK studies in Chapter 5, 6 and 7. This chapter helps to test key hypotheses of this thesis using new data, and to deepen the understanding of firms' choice behaviour in accounting. It also provides a foundation for the next chapter to conduct a comparative analysis between the UK and Taiwan.

This chapter first explores Taiwanese firms' opinions about regimes, particularly the impact of mandatory IFRS adoption, using both quantitative and qualitative approaches (Section 8.2 and Section 8.3). The results of nonparametric tests suggest that, from managers' viewpoints, sampled Taiwanese public firms do not perceive net benefits from implementing IFRS. This finding is in accordance with that obtained from UK data. Therefore, like UK firms, some Taiwanese firms would not voluntarily report under IFRS if the adoption were not compulsory. The findings also show that a tied accounting choice may not always be beneficial for companies.

Five Taiwanese firms are further examined to discover their considerations behind the stated costs and benefits, and whether their perceived utilities influence their decisions on whether to adopt IFRS early from 2012. The cases present that firms, which perceive benefits of applying IFRS tend to have higher adoption utilities of IFRS, compared to firms which do not sense the benefits. The outcome proves the

usefulness of the stated preference approach in studying firms' financial reporting choices. Firms with greater adoption utilities of IFRS often have more incentives to adopt IFRS early. Nevertheless, none of firms mentioned in this chapter adopts IFRS from 2012. This is because in addition to the adoption costs and benefits, other factors affect Taiwanese firms' decisions. They include: (1) the comparability across firms; (2) the length of preparation time; and (3) the time difference between early adoption and normal adoption. The results imply that it requires a minimum amount of perceived benefits for firms to adopt IFRS early.

This chapter moves on to Taiwanese firms' technique choices, with the focus on techniques for valuing intangibles, recognising development costs, and valuing investments. These firms' choices over financial reporting techniques are summarised in Table 8.8. As with the finding of UK cases (refer to Section 5.3 and Section 5.4), the results of Taiwanese firms present that firms' technique choices are generally consistent with cost-benefit analysis, given free choices. Most of the time, Taiwanese companies adopt the technique with better net and ratio utilities. This also shows that a stated preference approach can help to capture companies' preferences towards financial reporting techniques. Additionally, new reasoning why firms do not follow cost-benefit analysis is found in Taiwan's data. For instance, the case of Company TG's technique choices in valuing investments shows that a firm might elect a technique with lower utilities, to achieve the consistency within the whole group, or to receive a high level of (gross) adoption benefits. Moreover, the way Company TC chooses techniques for valuing intangibles and investments combines the consideration of both suitability and adoption costs and benefits of techniques. Company TC tends to scrutinise the fitness of various approaches before evaluating

the adoption costs and benefits. Although the appropriateness of techniques dominates the decision-making process, Company TC still applies cost-benefit analysis in a later stage. It should be noted that this research explores managers' perceived costs and benefits and is not able to capture all accounting costs and benefits.

Table 8.8: Summary of Taiwanese Firms' Technique Choices

Situations		Examples
(1)	Net utilities (B-C) are different; ratio utilities (B/C) are different: Judge by either (B-C) or (B/C)	Company TA (development costs) Company TB (development costs) Company TC (intangibles; investments) Company TF (intangibles)
(2)	Do not fully apply cost-benefit analysis: the fitness dominates, or to obtain high (gross) adoption benefits or to achieve the consistency within the group	Company TC (intangibles; investments) Company TG (investments)

In the later part of this chapter, the two-stage choice model is applied to analyse Taiwanese firms' regime and technique choices at the same time. Similar to the finding of the UK research, there are three choice patterns observed in Taiwanese data, and the decision-making process will be influenced by the relative significance of regime and technique choices. Firstly, companies might elect a regime first, and then choose techniques. This situation can be explained by the lexicographic ordering, and it happens when the regime choice dominates the entire choice problem (Colman & Stirk, 1999; Houy & Tadenuma, 2009). For example, Company TF, a private firm, desires to adopt the regime which most of companies use because it expects to be purchased by other firms in the future. Different from UK private firms,

Taiwanese private firms can only report under ROC GAAP and cannot choose IFRS. Therefore, Company TF's decision is based on the assumption that it could choose regimes and techniques freely. Sometimes, firms might apply this decision-making process involuntarily. For example, as a publicly listed firm in Taiwan, Company TB is required to adopt IFRS from 2013 onwards as its regime. Hence, it can only implement this sequential procedure. Secondly, firms might decide techniques before choosing regimes. This is also a sequential process, but completely opposite to the first pattern. It incurs when the technique choice is much more important than the regime choice, and can be expressed using a colexicographic ordering (Castano & Castano, 2012). The way Company TG made decisions right before 2012 belongs to this category. Thirdly, corporations might consider regime and technique choices simultaneously, and make nested decisions. This situation could be seen when neither the regime choice nor the technique choice prevails the choice problem. Company TE uses this decision-making process right before 2012, when it has free choices over regimes and techniques. These results, from the cases explored, show that future plans and ownership structures of companies and financial reporting regulations might influence firms' choice patterns in this two-stage choice problem.

To conclude, this chapter shows that cost-benefit analysis based on stated preference theory is useful in accounting studies. The stated costs and benefits reflect firms' preferences towards financial reporting regimes and techniques. Generally, as UK firms, Taiwanese firms' accounting decisions, including regimes and techniques, are in accordance with perceived utilities. Moreover, a considerable number of Taiwanese public firms do not experience additional benefits from adopting IFRS mandatorily. Additionally, firms' decision-making processes in the two-stage choice

model often depend on the relative significance of regime and technique choices. This chapter articulates Taiwanese firms' choice behaviours from several key aspects, and lays the groundwork for next chapter which aims to compare and contrast UK and Taiwanese data.

Chapter 9 Policy Implications of New Financial Reporting Regulations

9.1 Introduction

Chapters 5 through 8 examine UK and Taiwanese firms' regime and technique choices in detail and emphasise their current choices. The results suggest that the stated preference approach helps to explain companies' accounting decisions. This chapter explores how firms respond to new accounting policies and how they make decisions for expected situations. It also evaluates whether stated preference theory is useful to study firms' anticipated choices. Furthermore, this chapter investigates firms' general opinions on the current financial reporting regulations, involving IFRS which is part of the mainstream of the accounting literature and practice. Additionally, this chapter discusses the similarities and differences between UK and Taiwanese accounting practices, including freedom of choice, firms' choice behaviours, companies' attitudes towards IFRS and principal considerations of financial reports. Grounded in the finding of the previous chapters, this chapter aims to provide crucial and latest policy insights into UK and Taiwanese accounting practices.

This chapter is organised in the following manner: Section 9.2 and Section 9.3 elaborate on recent policy changes in accounting in the UK and Taiwan, respectively. These two sections also show firms' views on current financial reporting regulations. Section 9.4 conducts a comparative analysis between UK and Taiwan. Section 9.5 concludes this chapter.

9.2 UK Practice

This section focuses on the accounting practice in the UK. It investigates the latest changes in financial reporting standards in the UK, which is the introduction of New UK GAAP from 2015. It also discovers UK companies' viewpoints of IFRS and current accounting regulations through analysing interview data. It aims to contribute to UK accounting policies.

9.2.1 UK Firms' Views on New UK GAAP: Companies D, A and F

This section studies the views of three UK firms on the new financial reporting regime (i.e., the New UK GAAP) and investigates their future accounting choices and their preparation for the latest policy changes. The three companies are Company D, Company A and Company F.

Company D

Firstly, Company D is a UK firm which operates in the motor industry. Since it is a private company, it can choose to report under IFRS or under UK GAAP freely. As pointed out in Section 6.2, it presently applies UK GAAP for all its accounts, including consolidated and individual accounts. The UK accounting authority aims to replace the current UK GAAP with the new UK GAAP, involving FRS 101[8] and FRS 102, from 2015 (ICAEW, 2012; Moore Stephens, 2014). Hence, from 2015, Company D has to choose from amongst IFRS, FRS 101 and FRS 102. For some of its subsidiaries' individual accounts, the company can also use the FRSSE.

[8] Referring to Chapter 3, FRS 101 is only applicable to individual accounts.

When asked about the view on the New UK GAAP, the interviewee of Company D answered that "We do not like the New UK GAAP and do not see the benefits from changing the regime." The respondent added, "We are a family-run business. People [shareholders] will not understand the financial reports if the regime changes." Company D's expected regime choice is further explored. Initially, Company D considered using FRS 102, which is closer to current UK GAAP (PwC, 2013c), because FRS 102 with fewer pages is simpler than other regimes. However, the company found FRS 102 not preferable because FRS 102 requires firms to separate financial commission income and sales income. "It is too much for us. It is a contentious issue," the interviewee of Company D claimed.

Because of the above reason, Company D plans to adopt IFRS for its consolidated accounts and to implement FRS 101 for the subsidiaries' individual accounts, although it does not see great benefits to transit to IFRS. The interviewee of Company D explained that adopting IFRS for consolidated accounts might enhance the comparability of financial reports because most of its competitors are listed firms and adopt IFRS. Moreover, since subsidiaries are smaller firms, FRS 101 with the reduced framework might be more suitable for them (Moore Stephens, 2014; PwC, 2013c). For the parents' individual accounts, Company D still evaluates whether it should adopt IFRS or FRS 101. The respondent of Company D stated that "It is more likely [for us] to apply FRS 101 for parent's individual accounts from 2015, but [we] will investigate whether it requires a lot of disclosures under IFRS." He further addressed that "We would check what would be the additional disclosures [of IFRS], and whether they would be a headache." Table 9.1 summarises Company D's anticipated regime choices for different accounts.

Table 9.1: Company D's Expected Regime Choice for Different Types of Accounts (from 2015)

Regimes / Choice / Accounts	IFRS	New UK GAAP		FRSSE
		FRS 102	FRS 101	
Consolidated accounts	✓*	✓	×	×
Parent's individual accounts	✓*	✓	✓*	×
Subsidiaries' individual accounts	✓	✓	✓*	✓

Note: * denotes the expected regime choice made by Company D

The following paragraph looks at whether the stated preference approach helps to obtain Company D's perceived adoption costs and benefits of current and expected regimes. The first three rows of Table 9.2 show Company D's stated costs and benefits of current regimes. As discussed in Section 6.2, when all regimes bring negative net adoption utilities, Company D can only choose the regime with relatively better utilities. Hence, the company implements UK GAAP for all its accounts now. From the last three rows of Table 9.2, it can be observed that compared to the current UK GAAP, none of the regimes available for Company D from 2015 leads to a better ratio or net utility. Furthermore, all regimes have the same level of adoption benefits (medium) as the current UK GAAP. Therefore, the company's expected costs of benefits are in accordance with its respondent's statement that it does not see great benefits to change regimes. The result suggests that stated preference theory can help to capture corporations' preferences to future financial reporting regimes.

Table 9.2: Company D's Perceived and Expected Costs and Benefits of Adopting Regime

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Present	IFRS	High (4)	Low (2)	0.5	-2
	Current UK GAAP*	Medium (3)	Low (2)	0.67	-1
	FRSSE	Medium (3)	Low (2)	0.67	-1
From 2015	IFRS*	High (4)	Low (2)	0.5	-2
	New UK GAAP - FRS 101*	Medium (3)	Low (2)	0.67	-1
	New UK GAAP - FRS 102	Medium (3)	Low (2)	0.67	-1

Note: * denotes the current and expected regime choices made by Company D

As indicated before, Company D plans to use IFRS and FRS 101 from 2015 onwards because it is eager to apply a specific technique. However, as shown in Table 9.2, the net utilities of using FRS 101 and FRS 102 are the same (at the value of -1). Therefore, they are better choices compared to IFRS (with a net utility of -2 for the present and for the future, i.e., from 2015) in terms of adoption utilities. Thus, the decision of adopting IFRS from 2015 violates cost-benefit analysis. The finding implies that a company will adopt a regime with worse utilities to achieve a certain goal. Similar situation can also be found in firms' technique choices in Chapter 5 and Chapter 8. When companies concern more about the consistency within the corporate group or the fitness of techniques, they would not follow the results of cost-benefit analysis.

As mentioned before in the discussion of Section 7.2, Company D's decision-making

process here is sequential and can be expressed by the colexicographic ordering. This means the firm decides the technique before determining the regime. As pointed out in Chapter 7 and Chapter 8, companies make decisions using this method when the technique choice dominates the two-stage choice model of financial reporting modes.

Regarding the preparation for the policy changes, the respondent of Company D stated that they will carry out conversion exercise to examine the details of New UK GAAP and IFRS. During the process of evaluation, the company will focus on the data needed for preparing balance sheet. The company prefers the consistent and simple accounting regulations.

Company A

Secondly, Company A is a manufacturer belongs to the pharmacy industry. It is a medium-sized public firm. When facing the introduction of IFRS right before 2005, Company A decided to adopt IFRS for all its accounts, even though the IFRS adoption was not compulsory for individual accounts. This is because Company A perceived additional benefits from using IFRS. Referring to the discussion in Section 6.4, IFRS leads to a positive net utility and a ratio utility greater than unity for Company A. The adoption utilities of IFRS are also better than those of UK GAAP (refer to Table 6.10, or the first two rows of Table 9.4). According to the respondent of Company A, the benefits of implementing IFRS mainly come from the treatment of intangibles. Hence, the company voluntarily applied IFRS early from 2004.

Regarding the new regime choice resulting from the introduction of New UK GAAP, the interviewee of Company A indicated that they start to use FRS 101 for subsidiaries' individual accounts from 2013 (an early adoption), and continue to

report consolidated accounts and parent's individual accounts under IFRS. He stated that the main consideration for this recent regime choice is the treatment of intangibles. As discussed in Section 6.4 for the regime choice near 2005, the result here proves again the importance of intangibles for this firm. The following table exhibits the regimes available to Company A, and its choices from 2013.

Table 9.3: Company A's Regime Choice for Different Types of Accounts (from 2013)

Regimes / Choice / Accounts	IFRS	New UK GAAP		FRSSE
		FRS 102	FRS 101	
Consolidated accounts	✓*	✓	×	×
Parent's individual accounts	✓*	✓	✓	×
Subsidiaries' individual accounts	✓	✓	✓*	×

Note: * denotes the regime choice made by Company A

The respondent of Company A mentioned that their main focus of subsidiaries' accounts lies in simplicity and consistency within the group. Therefore, the regime choice for subsidiaries' individual accounts will be affected by the regime for consolidated accounts. He further explained the incentive to use FRS 101 for subsidiaries' individual accounts: "Since FRS 101 is the reduced form of IFRS, it reduces the administration and work involved to the accounts. And the numbers [under FRS 101] are the same as what we prepare under IFRS." He added, "FRS 101 uses the same techniques as IFRS, but it is simpler." The above statements show that FRS 101 is appealing for Company A because it requires less work when still maintaining the consistency across divisions of the group (PwC, 2014b).

Regarding the FRS 102, the interviewee of Company A said that "We did look at

FRS 102. However, it is not attractive." He remarked, "If we use FRS 102, there will be different amortisation periods [across different accounts]. So we do not use FRS 102, although using FRS 102 might have tax benefit from amortisation of intangibles." If the amortisation of intangibles is faster, the company can receive the tax relief earlier. Since the default amortisation period under FRS 102 is 5 years (a shorter period), there might be tax benefit of implementing FRS 102. Nevertheless, because of the different regulations about amortisation under IFRS and FRS 102, adopting FRS 102 will result in the inconsistency. The respondent of Company A said that "The auditors would not be happy with us amortising over 5 years in the company accounts [individual accounts] but not amortising at all in the group accounts."

Table 9.4: Company A's Perceived Costs and Benefits of Adopting Regime (before and after 2013)

Regimes		Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
Before 2013	IFRS*	Low (2)	Medium (3)	1.5	1
	Current UK GAAP	Low (2)	Low (2)	1	0
After 2013	IFRS*	Low (2)	Zero (1)	0.5	-1
	New UK GAAP - FRS 101*	Low (2)	Low (2)	1	0

Note: * denotes the current and expected regime choices made by Company A

Table 9.4 summarises Company A's stated costs and benefits of adopting various regimes before and after 2013. The last two rows of Table 9.4 present that FRS 101 leads to better ratio and net adoption utilities than IFRS for Company A after 2013.

This outcome implies that the company has the incentive to shift from IFRS to FRS 101 when considering the adoption utilities. Hence, Company A's decision, that adopting FRS 101 for the subsidiaries' individual accounts from 2013, is reasonable.

Company F

Thirdly, Company F is a medium firm which provides services associated with properties. Section 6.3.1 elaborates that Company F currently adopts IFRS compulsorily for consolidated accounts and uses UK GAAP voluntarily for individual accounts. The respondent of Company F said that they do not implement IFRS for individual accounts because they do not see the benefits of applying IFRS. He mentioned that they will evaluate the New UK GAAP. However, they think all standards are converging and there is no great difference across regimes. Therefore, he expected that they will choose the regime closer to current UK GAAP (i.e., FRS 102).

Presently, both Company D and Company F use UK GAAP, given free regime choices, because they do not perceive net benefits from adopting IFRS. When facing the changes in accounting policy from 2015, they first consider using the regime (FRS 102) which is similar to current UK GAAP. This result suggests that firms tend to avoid changing the way they report financial statements (Burmeister & Schade, 2007; Messier et al., 2014; W. Samuelson & Zeckhauser, 1988). Nonetheless, Company D found that a specific technique under FRS 102 is not favourable. Hence, it turns to IFRS and FRS 101.

Company A implemented IFRS for all its accounts until 2012. From 2013, it continues using IFRS for consolidated accounts and parent's individual accounts and

changes to FRS 101 for its subsidiaries' individual accounts. The regime choices for parent's and subsidiaries' individual accounts (before and after 2013) are free choices, and they are principally driven by the treatment of intangibles. Both Company A and Company D choose to report subsidiaries' individual accounts under FRS 101. However, the processes are very different. Company A shifts from IFRS because it sees the benefits of using FRS 101 as a reduced framework of IFRS (PwC, 2014b). Company D moves from current UK GAAP after rejecting FRS 102, which is closer to current UK GAAP but with a disadvantage technique. Company D believes that the reduced framework (i.e., FRS 101) is more suitable for subsidiaries, which have smaller firm size (Ahmed & Courtis, 1999; Depoers, 2000). The finding suggests that firms might find the benefit of FRS 101 because of the reduced disclosure requirement.

9.2.2 UK Firms' Views on IFRS and Current Accounting Regulations

The previous section emphasises the latest policy changes in the UK, the introduction of the New UK GAAP. This section further explores UK firms' general opinion on the current accounting regulations, including the principal financial reporting regime, the IFRS. The UK is one of the countries that adopted IFRS earliest and it is heavily involved with IASB, which establishes and continuously updates the IFRS. Therefore, it is interesting and important to discover how UK corporations view IFRS. The following paragraphs integrate and analyse UK companies' viewpoints expressed in interviews.

First of all, interviewees illustrated the major differences between IFRS and UK GAAP. The respondent of Company A indicated that a big difference between IFRS

and UK GAAP is the amortisation of intangibles. Under IFRS, a company can choose not to amortise intangibles when intangibles are considered to have indefinite lives. “Even though intangibles that are not goodwill arising on consolidation are not amortised, the company can claim a 4% tax relief,” he added. Nevertheless, a firm has to amortise intangibles under UK GAAP, using the default amortisation period of 20 years. Furthermore, he addressed that “the major change resulting from the transition [from UK GAAP to IFRS] is what to disclosure and the way to prepare group accounts.” For Company B, the treatment of financial instruments is the most different part between IFRS and UK GAAP. According to the respondent of Company F, the main cost of using IFRS is the transition cost. “In order to shift to IFRS, the firm needs a considerable amount of preparation, including redoing all the notes, and analysing the difference between the UK GAAP and the IFRS,” he stated. The audit cost also increases. After the transition period, the adoption costs and benefits of IFRS and those of UK GAAP are similar for Company F.

Many interviewees of UK firms also pointed out that IFRS may require more effort to apply. For instance, the respondent of Company A mentioned that it is very difficult to use hedge accounting under IFRS. He stated that “In order to have appropriate documents in advance to achieve proper hedge, we need experts in this area.” Additionally, the respondent of Company B commented that “Compared to IFRS, UK GAAP has the benefit of simplicity.” IFRS asks corporations to disclose many details (E.Sun Bank, 2009); nonetheless, the disclosure required by UK GAAP is simpler. The interviewee of Company D also shared the same opinion that UK GAAP is relatively simple. He thought that IFRS requires a significant amount of information, and makes the valuation of intangibles more difficult. “Using IFRS

needs many judgement and estimation techniques. This part is complicated," he further explained. The respondent of Company F also referred to the additional disclosure required by IFRS. He thought it could be costly to report under IFRS. However, he also said that it might improve the transparency of financial reports (Horton & Serafeim, 2010; Singleton-Green, 2015).

The other potential benefits of applying IFRS are as follows: The interviewee of Company A pointed out that the investors like to see the company report under IFRS and this is one of the main reasons why the company would like to implement IFRS. This result implies that IFRS might be useful for companies to attract potential investors. Additionally, since UK publicly listed firms must adopt IFRS for consolidated accounts, the respondent of Company B claimed that using IFRS for individual accounts is good to maintain the consistency within the group.

The UK firms' general ideas about the current accounting regulation are also explored. The interviewee of Company A also said that "Nowadays, the complexity of accounting standards has risen. We need more experts. However, since our size is relatively small, we cannot afford dedicating people to these complicated tasks." He elaborated that the complexity mainly comes from interpreting regulations properly and fully understanding the impact of accounting policy changes on the company. The complexity will slow down the decision-making process. Under these circumstances, Company A seeks external support, particularly for the crucial decisions such as the acquisition.

Similar to Company A, Company B hoped that the regulation can enhance its simplicity and consistency. "The current regulation is too complicated and is not

consistent by itself," the interviewee of Company B argued. He indicated that the treatment of financial instruments and the treatment of taxes are very complicated. Hence, it is very difficult to explain to people about these sections. He further mentioned that the regulation about share-base payment also demands improvement. In addition, he addressed that "The big fish [the regulatory bodies] will not listen, so the small fish [the company] can only follow." This finding suggests that the accounting authorities should make more effort to communicate with corporations.

Slightly different from the opinion of Company A and Company B, Company F felt that all financial reporting standards are converging. There is no big difference across various regimes. Therefore, the decision-making process is not too complicated. Nevertheless, the interviewee of Company F commented that several aspects in accounting, such as the treatment of financial instruments and foreign exchanges, and the judgemental sections are complicated. The finding shows that there is a need to enhance the consistency and reduce the complexity of accounting regulations (Peterson, 2012).

In addition to UK GAAP and IFRS, qualified UK firms can also elect the FRSSE as their financial reporting regime. For instance, some subsidiaries of Company D are entitled to report under the FRSSE. The respondent of Company D claimed that the company does not have incentive to use the FRSSE and it decides to adopt UK GAAP for all its accounts, for consistency purposes. The outcome suggests that if a small firm belongs to a corporate group, it often chooses not to implement the FRSSE. This is because the parent company with a larger firm size usually does not use the FRSSE, and the small subsidiary tends to use the same financial reporting regime as the parent to maintain the consistency within the group.

Under the UK framework, companies have different levels of freedom in choosing regimes and techniques. Whether having accounting choices are good for UK firms is also discussed in the interviews. The respondent of Company A remarked that it is good to have choices. "However, if there are too many choices, it takes a lot of time to decide which accounting mode should be used, and the complexity will increase. And there will be additional costs to investigate these choices," he explained. These statements present that standard-setters might need to consider carefully how much discretion should be given to corporations because too many choices might become a burden for firms (Sethi-Iyengar, Huberman, & Jiang, 2004).

During the interviews, auditors were mentioned by different companies many times. For example, the respondent of Company A pointed out that "We will discuss with auditors when facing significant accounting issues or changes. However, the advices which auditors can give are constrained because of the regulation." The interviewee of Company B also indicated that the company will ask auditors' opinions when it needs to change the method to report financial statements. Moreover, Company F heavily depends on auditors to provide latest accounting information, and will consult auditors when making decisions. The results show that the auditors are very influential and important for companies in preparing financial statements and determining accounting modes. Companies are guided by the information that auditors provide them with, and in a sense auditors do influence the choice outcome.

9.3 Taiwanese Practice

This section emphasises key accounting issues in Taiwan. Following the structure of the previous section, this section first studies the potential policy changes in financial

reporting in Taiwan. This refers to the introduction of IFRS for SMEs in Taiwan (see Chapter 3). The latest regulatory developments are also presented here. This section further discusses the views of Taiwanese companies on IFRS and present accounting regulations. Since IFRS is adopted by Taiwanese firms only from 2013 onwards (the early adoption is from 2012), the evidence acquired from these firms is timely. The analysis of this section should provide crucial policy implications.

9.3.1 Taiwanese Firms' Views on IFRS for SMEs and Latest Regulatory Developments: Companies TH, TF, TE, TG and TA

The Taiwanese authority for private firms considers introducing IFRS for SMEs for several years. Although the timetable is not certain yet, the authority has held a considerable amount of training to enhance people's understanding of this new financial reporting regime. The following elaborates how Taiwanese firms view IFRS for SMEs using interview data.

In Taiwan, public firms are required to adopt IFRS mandatorily from 2013 or 2015 onwards, depending on the firm type and listed situation. In contrast, Taiwanese private companies currently report under ROC GAAP. For some private firms which belong to a corporate group, their parent companies are public and hence implement IFRS. Under these circumstances, two financial reporting regimes are used in the group. The consistency issue within the group might influence private firms' accounting choices (Boojihawon et al., 2007; Yazdifar et al., 2008). Therefore, the following paragraphs first studies private firms, which are not subsidiaries of a public company (i.e., Company TH and Company TF). Private firms, whose parent companies are public, (i.e., subsidiaries of Company TE, TG and TA) are also explored in this section.

Company TH

Firstly, Company TH is a private firm which is not a member of a corporate group and only prepares the individual financial reports. It presently applies ROC GAAP because of the regulation. It was founded around 20 years ago and its core business is developing and manufacturing industrial materials. It has a small firm size with 15 employees. Regarding IFRS for SMEs, the respondent of Company TH commented that "There is no large difference between IFRS for SMEs and ROC GAAP." He further explained that "People are used to ROC GAAP. If we can choose, we prefer to continue using ROC GAAP to avoid additional costs." This statement shows again that companies tend to maintain the status quo if they do not recognise net benefits from changing their accounting modes (Messier et al., 2014).

In the interviews, he mentioned several times that the company is small, and does not have many employees. Thus, it tends to adopt simpler and not costly approaches when preparing financial reports. These statements show that the small firm size of Company TH has an important impact on its accounting choices. He also stated that "SMEs prefer the regulation with clear instructions, such as ROC GAAP, rather than principles-based standards, such as IFRS and IFRS for SMEs." He addressed that it is because principles-based regimes require more decision-making and therefore more labour and training (Agoglia et al., 2011). The result shows that when a company does not perceive large benefits from adopting a new regime, it tends to maintain its regime. Additionally, a small firm, with limited resources and few employees, might find IFRS for SMEs costly to adopt because this standard is principles-based, which implies additional adoption efforts (Collins et al., 2012; Di Pietra et al., 2008; Tyrrall, Woodward, & Rakhimbekova, 2007).

Table 9.5 presents Company TH's perceived and expected costs and benefits of adopt ROC GAAP and IFRS for SMEs. For Company TH, the adoption benefits of ROC GAAP and those of IFRS for SMEs are both low. Nevertheless, IFRS for SMEs leads to much higher adoption costs (extreme) than ROC GAAP (medium). The stated costs and benefits are consistent with Company TH's statements in previous paragraphs. In this situation, ROC GAAP is relatively beneficial compared to IFRS for SMEs in terms of adoption net and ratio utilities. The result obtained from cost-benefit analysis supports Company TH's decision to use ROC GAAP when the company has a free regime choice.

Table 9.5: Company TH's Perceived and Expected Costs and Benefits of Adopting Regime

Regimes	Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
ROC GAAP*	Medium (3)	Low (2)	0.67	-1
IFRS for SMEs	Extreme (5)	Low (2)	0.4	-3

Note: * denotes the expected regime choice made by Company TH

Company TF

Secondly, Company TF is a private firm operating in the high-technology industry. It is a micro firm and does not belong to a corporate group. It prepares individual accounts under ROC GAAP. Company TF ranked the possibility for it to adopt IFRS for SMEs as high. Its respondent indicated that the company hopes to IPO or be purchased by other companies in the future and would like to adopt the financial reporting regime which most of companies implement. "Since IFRS is widely used in the world, applying IFRS for SMEs helps to enhance the comparability of financial

reports," she elaborated. The outcome presents that Company TF perceives large benefits from adopting IFRS for SMEs and has incentives to change its regimes. This situation is very different from that in Company TH. Both Company TF and Company TH are very small. Company TF, aiming to be acquired or merged by other companies or go public, thinks applying IFRS for SMEs, which might increase the comparability of financial reports, is attractive. Nevertheless, according to the respondent of Company TH, they do not have the intention of being combined with others or going IPO and would like to continue using the regime which they adopt now.

The finding, from our sample, suggests that the future plan of companies will affect their attitudes towards IFRS for SMEs. If private companies expect to go public or be purchased by other corporations, they will prefer to use IFRS for SMEs. Because IFRS is the global trend and Taiwanese listed companies have to adopt IFRS from 2013 or 2015 onwards, adopting IFRS for SMEs is good for private companies to attract potential investors. However, for private companies which plan to maintain its ownership pattern, they will be inclined to keep applying ROC GAAP. Since most of these private companies are small and their businesses are simple, for them there is no large difference of financial results between using IFRS for SMEs and using ROC GAAP. Therefore, they do not have incentive to adopt IFRS for SMEs which requires additional transition costs (Franks, Schaefer, & Staunton, 1997; Meeks & Swann, 2009). The result shows that sampled firms' accounting choices are related to their future plans (e.g., whether to conduct an IPO or not).

Company TE, Company TG and Company TA

The above two cases are private firms which do not belong to a corporate group. The following emphasises private firms which are controlled by public companies. First of all, Company TE is a publicly listed company which was required to adopt IFRS since 2013. It is a medium-sized firm and provides online services. It has a subsidiary in Hong Kong and a joint venture company in Taiwan. The respondent of Company TE said that the Taiwanese joint venture company reports under ROC GAAP. However, he commented that "if we could choose regimes, we prefer [the Taiwanese joint venture company] to adopt IFRS for SMEs." He added that "This is because IFRS and IFRS for SMEs are the trend." The above situation is closely related to the company's plan to expand the business and explore potential opportunity in global markets. He mentioned that adopting IFRS and IFRS for SMEs can help to attract investors. At the same time, this helps them to compare and evaluate investment or transaction performances in different markets. This finding implies that when private companies or their affiliated groups are more involved in the international market, they are more likely to use IFRS for SMEs (Di Pietra et al., 2008).

Company TE's anticipated choice follows cost-benefit analysis. Table 9.6 exhibits that ROC GAAP yields lower adoption costs (zero) than IFRS for SMEs (low). However, IFRS for SMEs generates much higher adoption benefits (high) than ROC GAAP (low). This is consistent with the respondent's statements. It turns out that both regimes have the same ratio utility, but IFRS for SMEs brings higher net adoption utilities. In this situation, Company TE prefers IFRS for SMEs to ROC GAAP. This situation is a new choice pattern which has not been mentioned in the

previous chapters. It implies that when companies face two choices with the same ratio utility, they may determine by the net utilities. Additionally, Chapters 5, 6 and 8 shows that stated preference theory generally helps to explain UK and Taiwanese firms' current financial reporting decisions. The results of Table 9.5 and Table 9.6 also suggest that a stated preference approach is useful to study firms' expected accounting choices.

Table 9.6: Company TE's Perceived and Expected Costs and Benefits of Adopting Regime

Regimes	Adoption Costs	Adoption Benefits	Ratio Utility (Benefits ÷ Costs)	Net Utility (Benefits - Costs)
ROC GAAP	Zero (1)	Low (2)	2	1
IFRS for SMEs*	Low (2)	High (4)	2	2

Note: * denotes the expected regime choice made by Company TE

Furthermore, the interviewee of Company TE pointed out that it is better for the parent and its subsidiaries to apply the same regime. He addressed that "If the parent and the subsidiaries use different regimes, readers may not understand the financial reports." This shows the consistency across various divisions is important for a corporate group, and might influence companies' accounting decisions (Boojihawon et al., 2007; Yazdifar et al., 2008). The same situation can be seen in other companies. For instance, Company TG is a public large telecommunication company. It is an intermediate parent company and reports under IFRS. All of its subsidiaries are private and can only adopt ROC GAAP now. The respondent of Company TG also indicated that the company likes the consistency across different divisions. Hence, if the subsidiaries could choose regimes in the future, they will prefer to use IFRS for SMEs for consistency purposes.

The interviewee of Company TA also stated that they hope to have the consistency within the group. As with the situation in Company TE and TG, Company TA adopts IFRS, but its subsidiaries implement ROC GAAP. The respondent of Company TA claimed that "We have evaluated the difference between ROC GAAP and IFRS, and there is no large difference." She further explained that this is because the subsidiaries are selling companies and their businesses are simple. "Hence, if subsidiaries have to adopt IFRS for SMEs, it will not be difficult to do so," she said. For Company TA which is required to adopt IFRS, the data of subsidiaries has been converted into IFRS version and is presented in the consolidated accounts of the group. Therefore, using IFRS for SMEs for subsidiaries accounts will not be too costly, and might enhance the consistency of financial reports. The result shows that private subsidiaries or joint venture companies might find using IFRS for SMEs beneficial, when their group or parent companies have already reported under IFRS. Nevertheless, the interviewee of Company TA did mention that it might be costly for most of small and medium-sized entities to adopt IFRS for SMEs.

To summarise, the outcome of this section implies that smaller private firms might find implementing IFRS for SMEs costly because this regime requires additional transition costs and more judgement (Di Pietra et al., 2008). However, private companies that plan to IPO or be purchased by other corporation might find IFRS for SMEs attractive because adopting this new regime could enhance the comparability of financial reports. Moreover, private subsidiaries or joint venture companies of public firms which currently report under IFRS might prefer IFRS for SMEs to ROC GAAP to achieve the consistency within the group. Therefore, there seems to be a relation between companies' accounting choices and firm-specific characteristics

(e.g., firm size, the types of ownership, membership of a corporate group).

In the middle of 2014, the Taiwanese authority revised the Business Entity Accounting Act, which is the principal accounting regulation for Taiwanese private firms. The purpose of changing the regulation is to fit in with the present economic environment and the trend of IFRS (Ministry of Economic Affairs, R.O.C., 2014a). The treatments and terms in financial reports are changed to be consistent with IFRS. This new regulation will be enforced from 1 January 2016, with the voluntary early adoption from 2014. The authority now amends the sub-law of the Business Entity Accounting Act, Regulation on Business Entity Accounting Handling (Ministry of Economic Affairs, R.O.C., 2014b). The draft is based on IFRS and IFRS for SMEs, and is adjusted for Taiwanese practice.

For several interviewed public companies which adopt IFRS compulsorily, their subsidiaries can only report under ROC GAAP because these subsidiaries are private companies. Therefore, they actually apply two different regimes now. Using different financial reporting standards means additional costs for these companies. The revision of the Business Entity Accounting Act and that of Regulation on Business Entity Accounting Handling might help to decrease the inconsistency for these companies. According to interview data, these firms, which use two financial reporting regimes, prefer IFRS for SMEs to ROC GAAP. Hence, these firms might be more likely to adopt the new regulations, which are closer to IFRS than the current regulations, early.

9.3.2 Taiwanese Firms' Views on IFRS and Current Accounting Regulations

Section 9.3.1 studies Taiwanese firms' opinion on potential policy changes. This section further investigates Taiwanese firms' viewpoints on IFRS and current accounting regulation. It is parallel to the discussion of UK companies in Section 9.2.2. It aims to discover the similarities and differences between Taiwanese and UK firms and provide crucial insights into accounting policies.

This section first explores how Taiwanese firms think of IFRS. Taiwanese publicly listed firms are required to adopt IFRS from 2013 or 2015 onwards. This current research interviewed both public and private companies about their views on the adoption of IFRS. These firms are broadly diversified in terms of firm size and industry.

In the interviews, many companies, such as Company TG and Company TH, argued that there is no large difference (in financial results) between using ROC GAAP and applying IFRS. For example, the respondent of Company TE argued that there is no large difference because the company's business items are simple. Taiwanese Company TC and Company TD felt that the adoption costs of IFRS are closer to those of ROC GAAP. The major differences are transition costs, including learning costs and consulting costs.

Nevertheless, interviewed firms indicated several differences between ROC GAAP and IFRS. For instance, the treatment of pensions was mentioned by many interviewees, such as Company TA, TC, TD, TE and TG. For Company TE, the major differences are the treatment of non-leaving pay for pensions and the

classification of deferred taxes. Under ROC GAAP, deferred taxes belong to current assets or liabilities; however, they are non-current under IFRS (Ernst & Young Taiwan, 2009). Moreover, the regulation of pensions is very different for this firm between ROC GAAP and IFRS (Ernst & Young Taiwan, 2009). Company TA shared the same opinion about treatment of pensions, and claimed that "Although there is no big difference between implementing these two standards, we prefer to stay in ROC GAAP and do not want to adopt IFRS early because of the pension regulation." She further elaborated that there is a disadvantage in profits because IFRS requires the reserve for non-leaving pay, and the different regulation of settling pensions affects big companies heavily.

The interviewee of Company TG also pointed out that the principal changes are the treatment of non-leaving pay and pension line. She explained that "Non-leaving pay should be recognised as liabilities under IFRS, but they are not part of liabilities under ROC GAAP." As required by IFRS, companies have to book the estimated value of non-leaving pay which can be accumulated, even though the amount has not been paid. Nonetheless, companies are not asked to do this under ROC GAAP (Ernst & Young Taiwan, 2009). Therefore, certain non-leaving pay will be treated as liabilities under IFRS, whereas it will not be recognised under ROC GAAP (KPMG Taiwan, 2009). In addition, she indicated that "All actuarial gains and losses of pensions should be recognised at one time [immediately] under IFRS, but they can be amortised over several years under ROC GAAP.[9]" This treatment will have a large impact on companies and might cause fluctuations of financial reports (Deloitte

[9] This refers to the 2013 version of IFRS. Taiwanese firms currently follow the 2010 version of IFRS, but the 2013 version will be introduced in Taiwan in 2015.

Taiwan, 2011b). Additionally, Company TC thought that the treatments of pensions and income taxes change a great deal and are complicated under IFRS.

According to Company TG, the terms in IFRS are different from those in ROC GAAP, and it takes time to understand the meaning of the terms (Nelson, 2003). The respondent of Company TA has the similar opinion that "It is a bit difficult to understand the regulation of IFRS, even though it is in Mandarin. This is because it is a new regime and it uses different terms." She stated that the company did not fully understand the content of IFRS, particularly about the required disclosure level in the beginning. In 2013, the authority published a report about what listed companies should disclose under IFRS. This document helps to clarify the disclosure level. She also remarked that "ROC GAAP emphasises how the numbers come out. However, companies need to consider how to use proper sentences and words to express the situation when using IFRS." Hence, the financial report complied with ROC GAAP is clear. The report prepared under IFRS is more uncertain.

Furthermore, the interviewee of Company TE said that the concept of fair value in IFRS is very different from ROC GAAP. "Companies use the cost approach to value investments under ROC GAAP, but they can use the fair value approach under IFRS. The results will be very different," he added. This issue is also addressed by the respondents of Company TA and Company TD.

Moreover, the interviewee of Company TD explained that under IFRS revenue can only be recognised when it is certain. Therefore, the time of recognising revenue and expenses under IFRS will be different from that under ROC GAAP. He elaborated that construction firms can only book revenue when the construction is complete.

Hence, they will have a substantial profit in the year when they finish the construction but experience a substantial loss before the completion. This will cause big fluctuations in financial reports. Therefore, unless the business is very stable, there will be larger fluctuations when companies use IFRS (Jermakowicz & Gornik-Tomaszewski, 2006).

Other differences between IFRS and ROC GAAP pointed out during the interviews are as follows: The regulation about how to identify individual subsidiaries is a big difference between ROC GAAP and IFRS (according to Company TB). Moreover, it is simple to calculate financial ratios under ROC GAAP but difficult to do so under IFRS because of the required format of financial reports (according to Company TC).

Several companies mentioned the benefits of adopting IFRS. As discussed in Chapter 8, the respondent of Company TA said other companies, which issue DRs or have investment properties, might perceive benefits of using IFRS. This is because they do not need to adjust financial reports from ROC GAAP to IFRS when issuing DRs in other countries and could use the fair value approach to value investments under IFRS. Company TC also felt that applying IFRS will be helpful if it wants to trade abroad in the future.

In addition, the interviewee of Company TE commented that implementing IFRS helps to attract investors because the regime is the trend and widely adopted by other countries. Company TF, which plans to go public or be purchased by other firms, shared the same opinion that IFRS can enhance the comparability of financial reports (DeFond et al., 2011). Company TD, whose principal shareholders are foreign capitals, also believed that IFRS may increase the transparency and helps foreign

investors to understand the company's situation (Horton & Serafeim, 2010; Singleton-Green, 2015).

Nevertheless, the respondent of Company TG stated that they do not see the benefits of connecting to the international markets when using IFRS. This might be related to the fact that this company completely emphasises Taiwanese market where all of its costs and sales occurred. This result, obtained from this case study, suggests that if companies do not heavily involve in global markets, they might find applying IFRS less attractive (DeFond et al., 2011). This also shows that the accounting costs and benefits, which the managers of sampled companies perceived, might be related to the target capital markets of these firms. This finding is consistent with the result about IFRS for SMEs in Section 9.3.1.

According to the interviewees of Taiwanese companies, it seems adopting IFRS is often more costly, compared to applying ROC GAAP. For instance, Company TE has applied ROC GAAP for a long period of time. Hence, it takes a considerable amount of time for this firm to understand IFRS. The relevant issue is also addressed by the respondent of Company TA. "We use ROC GAAP for a long time. All systems are designed for ROC GAAP. We have to change all the systems in order to adopt IFRS, particularly in the part of functional currencies," she said. During the interview, Company TC also pointed out that "The business plan is heavily affected by accounting regulations, particularly about the sales in foreign markets where functional currencies are used. If the changes in accounting regulations influence the treatment of functional currencies, the whole ERP system (Enterprise Resource Planning system) need to be revised and the costs are huge."

Furthermore, the interviewees of Company TA and Company TH thought that ROC GAAP indicates how company should prepare financial reports in detail. However, IFRS only provides the principles and requires management to evaluate a considerable amount (Ball, 2006; Collins et al., 2012). Company TH, a small firm, claimed that "SMEs will prefer the regulation with clear instructions. IFRS is costly to adopt because it requires a lot of judgement." For Company TB, one of the challenges to adopt IFRS is that there are more items to evaluate and the assessment is difficult in practice. For example, the company has to estimate the life of fixed assets, value intangibles and financial instruments. For manufacturing companies, it might be even more difficult to evaluate the production capacity, which involves a considerable number of assumptions.

Moreover, the respondent of Company TA mentioned that "implementing IFRS requires more communication between accounting department and higher level [management]." The firm also needs to conduct more work under IFRS, such as liability reserve and warranty provisions, which takes time to evaluate. The interviewee of Company TA stated that "transition to IFRS needs a lot of labour costs, and the company has to disclose a lot of information which might not be useful for the reader [of financial reports]." Company TC had similar opinions that the company has to disclose a large number of details and have more judgement under IFRS and needs to do more work (Ball, 2006). Its interviewees commented that "There may be something which we just want internal people to know and do not want the external to know. Because IFRS asks for a lot of disclosure, the risk increases. The company has to be very attentive to the internal control and the accounting treatments now." On the other hand, they believed that the readers of

financial reports will obtain more information and the transparency may increase (Horton & Serafeim, 2010; Singleton-Green, 2015).

The respondent of Company TG also found that IFRS requires more disclosures than ROC GAAP. “For instance, companies have to disclose AP [account payables] agent when reporting under IFRS, but this information is not needed under ROC GAAP,” she added. Additionally, the interviewee of Company TD argued that “The pages of financial reports increase hugely under IFRS. This is because the authority wants to enhance the transparency and there are many notes in financial reports. However, there are a lot of disclosures which are unnecessary and are not crucial.” This finding implies that authorities might need to carefully consider how much information is useful and how much data should be disclosed and try to find a balance between companies’ disclosure costs and investors’ interests (Ajinkya, Bhojraj, & Sengupta, 2005). It should also be borne in mind that a cost perceived by managers may not be a cost for other interest groups (Gwilliam et al., 2005; Schipper, 2010).

Regarding the transition costs, the interviewee of Company TE remarked that “The authority has a lot of training courses, so more and more people understand IFRS. In this situation, the transition costs will be reduced.” The result suggests, from the sample used, that there might be room for authorities to provide companies with appropriate training regarding the changes in accounting regulations.

There are more general ideas about the current accounting regulations in Taiwan. First issue is about the preparation time. The respondent of Company TA said that “The time to prepare financial reports is shorter because the new regulation requires financial reports to be viewed in the board.” She also mentioned that “after the

authority published IFRS, there is not enough time to prepare and execute. Sometimes, the regulations are inconsistent and change all the time." The interviewee of Company TB had the similar opinions. She stated that "the accounting regulation sometimes comes out very late." Even though the company receives enough information, it may not have enough time to execute, after knowing the changes in regulation. This finding suggests, for our sampled firms, that the regulatory authority might need to allow enough preparation time for companies when introducing new regulations.

Second issue is regarding the consistency across regulations, and the adoption costs and benefits. The interviewee of Company TA addressed that "In Taiwan, we do not use the latest version of IFRS [the 2010 version]. There will be additional costs to follow the new IFRS [the 2013 version] because the regulation will be different. Nonetheless, there is no large benefit to use new version of IFRS." Moreover, the respondent of Company TE commented that the regulation of pensions is very different between ROC GAAP and IFRS, and is very different between 2010 EU-IFRS and 2013 EU-IFRS. "It is very risky for companies to make decisions because we do not know how we need to treat pensions in financial reports later, and the treatment is crucial and will influence the net profit after tax," he remarked. Therefore, the choice might be good for current situation but unbeneficial for the future. This finding shows, from our sample, that authorities should not change the regulation too frequently and should try to maintain the consistency of regulations. The changes and inconsistency might increase firms' costs and the fluctuation of financial reports (Benston, Bromwich, & Wagenhofer, 2006).

Regarding this issue, Company TC provided a different point of view. Although the

firm noted that the regulation related to assets available for sales will be very different from 2015, this company believed that the Taiwanese authority did consider the learning costs of various companies when introducing IFRS in stages. For example, the authority enforces the different versions of IFRS in stages. That is the 2010 version of IFRS and the 2013 version of IFRS become effective in Taiwan from 2013 and 2015, respectively. Additionally, the authority requires publicly listed companies to adopt IFRS from 2013 onwards and other publicly unlisted firms to adopt from 2015 onwards. This allows companies, which have more resources, to adopt IFRS first. It also prevents firms from experiencing substantial changes by jumping ROC GAAP directly to 2013-IFRS.

Furthermore, the interviewee of Company TG indicated that they like the consistency within the group, and would like to adopt IFRS for SMEs for subsidiaries' accounts if they could choose in the future. Both UK and Taiwanese publicly listed firms are required to adopt IFRS. Unlike UK public firms which can voluntarily adopt IFRS for individual accounts, Taiwanese private subsidiaries of public firms must implement ROC GAAP. Thus, Company TG can only adopt ROC GAAP for its subsidiaries' individual accounts. Under these circumstances, two financial reporting regimes are used in one corporate group. This implies additional costs for Company TG. This case shows that Taiwanese accounting authorities might need to consider the consistency for corporate groups when introducing new regimes. Allowing the voluntary adoption of IFRS might also be a solution, as the situation in the UK.

9.4 Comparative Analysis between UK and Taiwan

The earlier chapters in this thesis explore accounting regulations in the UK and

Taiwan and study how companies in these two countries make financial reporting decisions from various perspectives. For example, this research has elaborated firms' perceived costs and benefits of adopting different regimes, companies' choices regarding financial reporting techniques, and corporations' decision-making processes in the two-stage choice model of accounting modes. The previous sections in this chapter also investigated UK and Taiwanese firms' opinion on new accounting regulations and financial reporting regimes, including IFRS. Table 9.7 exhibits the corresponding chapters, which discuss accounting issues using UK and Taiwanese data respectively. Based on the findings, this section conducts a comparative analysis of accounting choices and practices between UK and Taiwan. It aims to provide crucial insights into firms' choices in financial reporting and into accounting policies.

Table 9.7: Corresponding Chapters of UK and Taiwanese Studies

Topics	**UK**	**Taiwan**
Accounting Practices and Available Choices of Financial Reporting Regimes	Section 3.2	Section 3.3
Nonparametric Test of Regimes	Section 5.2	Section 8.2
Case Studies of Compulsory IFRS Adoption	Chapter 6	Section 8.3
Case Studies of Technique Choices	Section 5.3	Section 8.4
Case Studies of Decision-Making Processes in Two-Stage Choice Model	Chapter 7	Section 8.5
Firms' Opinions on Current and New Accounting Regulations	Section 9.2	Section 9.3

Background Information

First of all, background information of UK and Taiwan is elaborated to help the understanding of the comparative analysis of the accounting practices in these two

countries. The population of the UK was 64.1 million in 2013 (Office for National Statistics, 2014a). GDP of UK in 2013 was £1,656.5 billion (Office for National Statistics, 2014b). GDP in the third quarter of 2014 was 0.7% higher than that of the second quarter in 2014 and GDP is growing by 3% from the third quarter of last year. Regarding the contribution of various sectors to economic growth, it is explained by the component of GVA because of the availability of data. In 2012, GVA of the UK was £1,475.9 billion (Office for National Statistics, 2014c). The service sectors contributed 78.9% of GVA in that year. The secondary industry and the primary industry accounted for 20.5% and 0.7% of the total GVA respectively.

Furthermore, there were 2.17 million and 2.26 million UK firms in 2013 and in 2014 respectively (Office for National Statistics, 2014d). In 2013, 71.1% of UK firms' turnovers were less than £249,000, 19.4% of the firms had turnover between £250,000 and £999,000, and 9.5% of the firms' turnovers were higher than £1 million. In addition, 88.2% of UK firms had 0 to 9 employees. The other 9.7%, 1.7% and 0.4% of UK firms had employees between 10 and 49, between 50 and 249, and more than 250 respectively.

Compared with the population of the UK, the population of Taiwan is smaller. It was 23.4 million in 2013 (Department of Statistics, Ministry of the Interior, R.O.C., 2014), about one third of that in the UK. The GDP of Taiwan is also less than that of UK. The real GDP of Taiwan in 2013 was 15,346 billion TWDs (around £307 billion) (National Statistics, R.O.C., 2014a). In 2013, the tertiary industry and the secondary industry contributed 62.1% and 36.2% of the total real GDP in Taiwan, respectively. The output of the primary industry only accounted for 1.7% of the total real GDP. Similar to the situation in the UK, the output of the service sectors was the largest

component of the GDP in Taiwan. The primary industry contributed the least to the GDP in both countries. However, the secondary industry seemed relatively important in Taiwan than in the UK.

The latest official announcement indicated that the quarterly growth rate of GDP in Taiwan was 0.49% in the third quarter of 2014 and GDP rose by 3.78% compared to the third quarter of 2013 (National Statistics, R.O.C., 2014b). The figures suggest that the growth rate of Taiwanese economy is comparable to that of the UK, even though Taiwan has a smaller population and less GDP.

Regarding the total company and firm size, there were around 1.2 million firms in 2011 in Taiwan (National Statistics, R.O.C., 2012). UK had about double of the corporations. Additionally, the average net value of assets used in operation for the Taiwanese firms was 115.8 million TWDs (around £2.3 million) in 2011. Their average revenue was 47.7 million TWDs (around £1 million) in 2011 (National Statistics, R.O.C., 2012). The average number of employees per firms was 6.8 in 2011. The results show that small and micro firms are the majority in both Taiwan and the UK in terms of employees.

This research gathered interview data from five UK firms and 10 Taiwanese firms. There were also 22 and 15 questionnaire responses from UK and Taiwanese companies, respectively. Although our sample is not able to represent the entire population of UK and Taiwanese companies, it is very informative in terms of industry, firm size, and ownership.

Progress of Financial Reporting Regulations

The UK is amongst those that applied IFRS earliest. UK listed firms have to report their consolidated accounts under IFRS from 2005 onwards. The time that Taiwan introduced IFRS is eight years late. Taiwanese listed firms were asked to implement IFRS from 2013 onwards, with the voluntary adoption from 2012 onwards. Since IFRS is part of the mainstream in the accounting practice and research, it is very interesting and useful to study both countries, which adopted IFRS at different times. This will help to examine relevant issues of IFRS across areas and times.

From Chapter 3 and earlier sections of this chapter, it can be observed that both UK and Taiwanese standard-setters continuously improve the accounting regulations. UK authorities plan to replace the current UK GAAP with the new UK GAAP in 2015 and permit the early adoption. Taiwanese authorities introduce IFRS in 2013 and in 2015, in two steps. They might also allow the use of IFRS for SMEs in the near future. The result shows that both countries keep working on accounting policies to enhance the quality of financial reports and to adapt regulations to suit the present economic environment.

Accounting Authorities' Consideration of Adoption Costs

According to the discussion in Chapter 3 and Section 9.2 and 9.3, it seems that both of the accounting authorities of the UK and Taiwan consider different firms' adoption costs when establishing accounting regulations. Firstly, the authorities treat listed firms and unlisted firms differently in financial reporting. For instance, listed UK firms were required to adopt IFRS for consolidated accounts from 2005 onwards, whereas unlisted UK firms could choose IFRS or other regimes. Moreover,

Taiwanese publicly listed firms and publicly unlisted firms have different timetables to adopt IFRS (viz., compulsory IFRS adoption from 2013 and 2015 respectively). Secondly, the regulations, which public companies and private companies have to comply with, are different in both the UK and Taiwan. For example, UK private companies have more regime choices than UK publicly listed companies. They can choose at least IFRS and UK GAAP. Additionally, Taiwanese private firms have to adopt ROC GAAP, rather than IFRS, which Taiwanese public firms are required to use. Thirdly, the UK authority also takes into account firm size. Qualified private small firms have an additional regime choice, i.e., the FRSSE. However, in Taiwan, there is no obvious difference in the accounting framework for firms with various sizes. Since firms with different sizes and types of ownerships have different purposes and costs of preparing financial reports (DeFond et al., 2011; Hope et al., 2006; Jones & Higgins, 2006; Schiebel, 2008), it is helpful if authorities take into account the nature of firms when setting up accounting policies. The results imply that UK and Taiwanese standard-setters have evaluated firms' adoption costs, but there is still room for improvement, such as the consideration of firm size for the adoption framework in Taiwan.

Freedom in Accounting

This study explores firms' accounting choices from several perspectives. Throughout the thesis, it can be observed that various firms have different levels of freedom in choosing financial reporting regimes and techniques. Chapter 3 elaborates the adoption frameworks of regimes in the UK and Taiwan, and presents that UK and Taiwanese firms have different levels of freedom in accounting choices. Although both UK and Taiwanese publicly listed companies have to adopt IFRS for

consolidated accounts, UK firms generally have more choices in financial reporting modes than Taiwanese firms.

For instance, UK publicly listed firms can choose between IFRS and UK GAAP for parents' individual accounts. However, since Taiwanese authorities do not have different regulations for parents' individual accounts, Taiwanese listed firms can only use IFRS for parents' accounts. UK and Taiwanese listed firms' decision trees of accounting modes are exhibited in Figure 9.1 and Figure 9.2. The decision trees clearly show that UK listed companies have more freedoms to financial reporting modes than Taiwanese listed companies. Since the treatments under different regimes vary, more regime choices also imply more technique choices.

Figure 9.1: Decision Tree of UK Publicly Listed Firms (Parent's Individual Accounts)

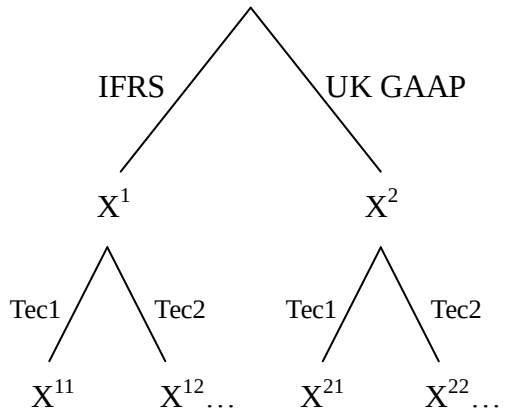
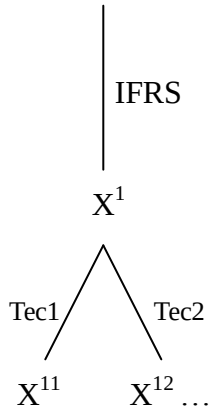


Figure 9.2: Decision Tree of Taiwanese Publicly Listed Firms (Parent's Individual Accounts)

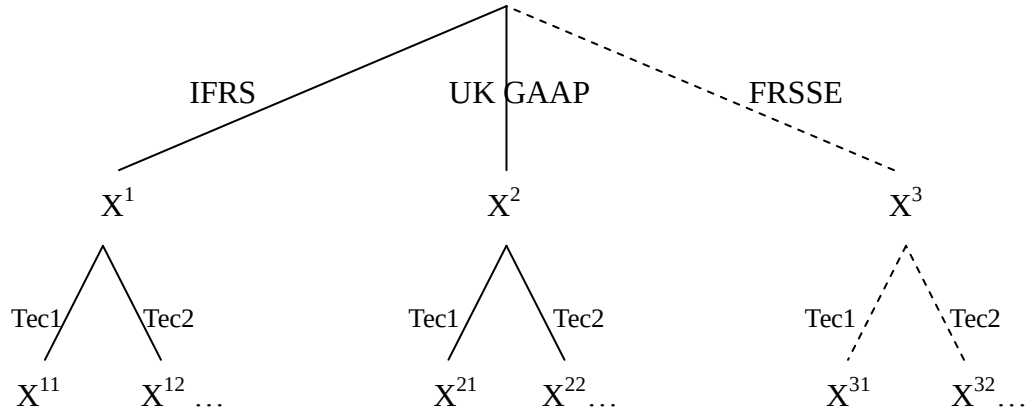


Furthermore, for subsidiaries' individual accounts, UK listed companies have more accounting choices than Taiwanese listed companies. Since the regulation allows UK firms to voluntarily adopt IFRS, UK listed companies could choose to adopt IFRS or UK GAAP for subsidiaries' accounts. Nevertheless, the financial reporting regime which a Taiwanese subsidiary has to use depends on whether it is a public or a private firm. If the subsidiary is a public firm, it must adopt IFRS. If the subsidiary is private, it has to report under ROC GAAP. Therefore, Taiwanese subsidiaries actually do not have a regime choice. As mentioned in Section 9.3, this regulation might cause the inconsistency of accounting in a group where the listed parent reports under IFRS, but the private subsidiary implements ROC GAAP.

UK private firms also have more discretion in financial reporting than Taiwanese private firms. In the UK, private companies can at least choose to implement IFRS or UK GAAP. As pointed out in Chapter 3, small private firms which satisfy certain conditions could have additional regime option, i.e., the FRSSE. Nonetheless, Taiwanese private firms can only adopt ROC GAAP. Under these circumstances,

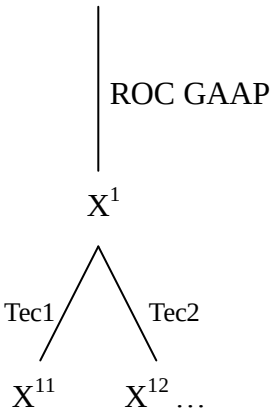
Taiwanese private firms also have less technique choices than UK private firms. For instance, when valuing investment property, UK private firms can choose the cost approach, market approach or fair value approach. Taiwanese private firms can only use the cost approach. Their decision trees of accounting modes are shown in Figure 9.3 and Figure 9.4.

Figure 9.3: Decision Tree of UK Private Firms



Note: Choice set of techniques for valuing investment property ={cost approach, market approach, fair value approach}. The FRSSE is available only for small qualified firms.

Figure 9.4: Decision Tree of Taiwanese Private Firms



Note: Choice set of techniques for valuing investment property ={cost approach}

The above paragraphs clearly demonstrate that UK firms often have more accounting choices than Taiwanese firms. When authorities set up financial reporting regulations, they need to carefully consider how much discretion and choice should be given to companies (Bushman & Williams, 2012; Sethi-Iyengar et al., 2004; Sunder, 2010). As the respondent of Company A said, too much choice might take firms a great deal of time to evaluate the options. Nonetheless, when the choice is constrained or when there is no choice, it might put firms at a disadvantage. For example, with no regime choice, members in a corporate group might be required to implement different regimes in Taiwan (see Section 9.3). It results in the inconsistency of financial reporting across divisions of a group, and will increase companies' cost of preparing financial reports (Deloitte Taiwan, 2009). Additionally, both UK and Taiwanese listed firms do not have regime choice, and must adopt IFRS. As discussed in Chapter 6, Chapter 8 and earlier sections of this Chapter, for firms which are smaller or do not plan to enter foreign markets, adopting IFRS might be costly or not attractive (DeFond et al., 2011; Hope et al., 2006; Jones & Higgins, 2006; Schiebel, 2008). Hence, standard-setters should deliberate on the freedom of choice in financial reporting.

Examination of Stated Preference Theory and Cost-Benefit Analysis

This thesis also investigates the potential of using stated preference theory in studying accounting choices. The evidence from the UK and Taiwanese data shows that companies' stated costs and benefits can reflect their preferences toward various financial reporting regimes and techniques. As seen in Chapter 5, Chapter 6 and Chapter 8, UK and Taiwanese firms' perceived costs and benefits are consistent with respondents' statements regarding accounting choices. The result indicates that a

stated preference approach is helpful to capture firms' attitudes to financial reporting regimes and techniques. In addition, on the basis of stated preference theory, this research applies cost-benefit analysis to explore firms' accounting decisions. The outcome implies that both UK and Taiwanese companies tend to adopt the accounting mode, involving regimes and techniques, with better ratio or net utilities, given free choices. This means that they generally apply cost-benefit analysis when determining financial reporting regimes and techniques (see Chapter 5, Chapter 6 and Chapter 8). However, there are exemptions in both UK and Taiwan cases. The rationales behind the decisions are slightly different. For example, from the results obtained, sampled UK and Taiwanese firms sometimes implement a technique with lower utilities when the fitness of techniques dominates the choice problem. Furthermore, UK Company C does not choose the technique with higher utilities but zero (gross) adoption benefit. Taiwanese Company TG adopts a technique with lower utilities but high (gross) adoption benefits or to achieve the consistency within the group. It should be noted that the utilities discussed in this thesis are based on managers' estimation. The results suggest that this approach is useful but with limitations. It is not able to take into account all accounting costs and benefits.

Nonparametric Test and Compulsory Adoption of IFRS

Additionally, the results of nonparametric testing using UK and Taiwan data suggest that, from managers' perspectives, sampled firms rarely perceive adopting IFRS as beneficial (see Chapter 5 and Chapter 8) (Fox et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). The finding implies that some sampled firms might not adopt IFRS if it were not mandatory. The results also suggest that sometimes a tied accounting choice might not be the best option for companies. Of course there may

be disadvantage perceived on the individual firm level, this does not imply the necessary disadvantage for society overall (Gwilliam et al., 2005; Schipper, 2010).

Moreover, the experience of mandatory IFRS adoption has an impact on sampled UK publicly listed firms' accounting decisions when they have free choices. As found in Chapter 6, when sampled UK listed firms do not sense additional benefits from compulsory adoption of IFRS for consolidated accounts, they tends to use UK GAAP for individual accounts (Cuijpers & Buijink, 2005). In contrast, sampled UK listed firms, which experience extra benefits of applying IFRS, tend to adopt IFRS early and use it voluntarily for individual accounts.

The impact of mandatory IFRS adoption on free regime choices is slightly less obvious in Taiwanese cases. This might be because Taiwanese public firms rarely have free regime choices. The only time point that they have free regime choices is when they can determine whether to adopt IFRS early. Although Section 8.3 shows that Taiwanese publicly listed firms with higher utilities of adopting IFRS have more incentives to adopt IFRS early, all interviewed listed firms do not choose the early adoption. Similar to the situation in the UK, Taiwanese firms with negative or zero net utilities of adopting IFRS decide not to implement IFRS early. However, the result, from our available sample of Taiwanese firms, shows that they may adopt IFRS early only when they perceive large enough benefits of adoption. Even though sampled firms might have positive net utilities of adopting IFRS, they might not have enough incentives to adopt it early. This is because the preparation time and the comparability of financial reports across companies in the same industry are also important for sampled Taiwanese publicly listed firms in making the decision of whether to adopt IFRS early.

Views of Companies on IFRS

Regarding companies' attitudes towards IFRS, many managers of sampled UK and Taiwanese firms think that it is more costly to adopt IFRS than to use local GAAAP (see Chapter 6, Chapter 8 and Section 9.2 and Section 9.3). They indicate that IFRS requires companies to disclose more details and information, which implies more costs and efforts needed to implement it. For example, Taiwanese Company TA has to provide additional information, such as liability reserve and warranty provisions, when adopting IFRS. At the same time, a few interviewees of UK and Taiwanese companies believe that the higher level of disclosure in financial reports might enhance the transparency of financial reports. Furthermore, UK and Taiwanese firms indicate that management have to make more judgements and evaluations under IFRS. This is because local GAAP often has clear instructions, whereas IFRS only provides the principles to prepare financial statements. UK firms point out that it is difficult and complicated to use hedge accounting and value intangibles under IFRS. Taiwanese companies also address that the estimation of the life of a fixed asset and the valuation of intangibles are challenging when they adopt IFRS.

Several UK and Taiwanese argue that adopting IFRS is helpful to attract potential investors. Taiwanese firms think that applying IFRS might bring the benefits particularly for firms that plan to issue DRs, IPO, or expand their businesses in global markets. Since IFRS is widely used in the world, reporting under IFRS can increase the comparability of financial reports (DeFond et al., 2011). However, for firms which are smaller, do not plan to IPO or are not heavily involved in international markets, using IFRS might not be beneficial. Smaller firms have limited resources, and it is very costly for them to adopt IFRS. Companies which emphasises

the local markets or do not plan to go public can hardly enjoy the benefits of applying IFRS which is widely adopted. The results, from our sample, suggest that different firm-specific characteristics might result in companies experiencing different accounting costs and benefits, and hence different financial reporting choices. These characteristics include firm size, ownership structure, and target capital markets.

UK and Taiwanese firms both indicate that the amortisation under IFRS is very different from that under local GAAP. In addition, they often say that there is no significant difference between IFRS and local GAAP. They both heavily depend on accountants and auditors for obtaining latest policy information and making accounting decisions, and think the authorities should enhance the consistency and simplicity of financial reporting regulations.

There are several key points about IFRS found in Taiwanese cases but not seen in UK examples. Firstly, Taiwanese companies express that the fair value approach of IFRS influences the valuation a great deal. Certain firms might find that using the fair value approach to value investment properties makes their financial results look better. Secondly, the treatment of pensions under IFRS is a crucial issue for Taiwanese firms, but it is not mentioned by any UK firms. Many interviewed Taiwanese companies address that they do not favour IFRS because of the regulation of pensions and non-leaving pay under IFRS. Thirdly, a few Taiwanese companies think that there might be more fluctuations or uncertainties in financial reports under IFRS because of the recognition rule and its focus of using sentences to describe the situation of companies.

Behaviours in Two-Stage Choice Model of Accounting Modes

Chapter 7 and Section 8.5 explore UK and Taiwanese companies' choice behaviours in the two-stage choice model of financial reporting modes. The results suggest that there are three types of decision-making processes which could be found in both UK and Taiwanese cases. They are two sequential choice patterns, including lexicographic and colexicographic orderings, and one nested decision. The evidence from UK and Taiwanese data both support the argument that the relative importance of technique choice and regime choice will influence companies' decision-making processes (Birnbaum, 2010; Castano & Castano, 2012; Colman & Stirk, 1999). When the regime choice dominates the two-stage choice problem, companies follow the lexicographic ordering and determine the regime before considering the techniques. In contrast, when the technique choice is much more significant than the regime choice, firms apply the colexicographic ordering and elect the technique first. If the relative significance of regime and technique choices is not clear, companies tend to choose the regime and techniques simultaneously (i.e., a nested choice). The finding in Chapter 7 and Section 8.5 also suggests that companies' choice patterns in this two-stage choice model are associated with their ownership (i.e., private or public) and their future plans (e.g., the aim of being purchased by other firms).

Principal Considerations of Financial Reports

In the questionnaire survey and interviews, companies' principal considerations of financial reports are also investigated. In the questionnaire responses, the three most important aspects which UK firms mention more frequently are the treatment of financial instruments, the treatment of taxes, and the treatment of liabilities. The

three most important items in financial reports for Taiwanese companies are the recognition of revenue, the treatment of financial instruments and cash flows. There are other aspects, such as business combinations, pensions, and intangibles, also often indicated by UK and Taiwanese firms. Because of the constraint of the sample size and hence the frequency might not tell the full story, the interview data was used to illustrate why certain items are important for UK and Taiwanese companies in the following. For both UK and Taiwanese firms, many aspects are crucial because the amount of the accounting item is substantial. It is very straight forward that this item will influence the financial results a great deal and will be one of the main considerations. However, the amount of various items will vary across firms and depend on the nature and industry of firms. For example, several UK and Taiwanese companies use this reason but prioritise different aspects, such as valuing intangibles, treating development costs, financial instruments, and liabilities. Furthermore, cash flows and revenue and expenses are significant for both UK and Taiwanese firms because these aspects are fundamental. Several Taiwanese companies further pointed out they emphasis revenue, expenses, and profit because investors pay more attention to these parts. A private Taiwanese firm thinks profit is important because it reflects the performance of the firm during this period. Additionally, the treatment of business combination is frequently ranked as top three most important techniques by large UK and Taiwanese firms. Since it is common for larger firms to merge with or acquire other companies, the issue of business combination will be more important for larger firms than for smaller firms.

There are other reasons that firms give to explain their major considerations of financial reports. UK firms address that the aspects which are subjective and

complicated are important for the whole financial reports. These items include taxes, deferred tax, hedge, valuations of intangibles, and impairment. Moreover, Taiwanese companies indicate that when the results of using various approaches are very different, they will look at the area carefully. This situation happened when companies deal with mergers and acquisitions, and research and development.

9.5 Summary and Discussion

This chapter first investigates UK and Taiwanese firms' opinion on recent and anticipated changes in accounting regulations, including an important financial reporting regime, IFRS. Building on earlier chapters which emphasise companies' current accounting choices, this chapter shows that stated preference theory is also useful to capture firms' expected costs and benefits of adoption.

Regarding the new financial reporting regulations in the UK (viz., New UK GAAP), Section 9.2 shows that FRS 101 with reduced disclosure requirement might be attractive for both private and public firms. However, it is not clear whether firms reporting under current UK GAAP will adopt FRS 102 which is closer to current UK GAAP.

In Taiwan, IFRS for SMEs might be introduced in the near future. The result in Section 9.3 suggests that local and small firms might not find adopting IFRS for SMEs beneficial. In contrast, companies, which plan to IPO or be purchased by other companies, will have the incentive to implement IFRS for SMEs because doing so will enhance the comparability of financial reports. For the same reason, companies, which are involved in the international markets, might have higher adoption benefits

of IFRS for SMEs than local firms (Di Pietra et al., 2008). Moreover, Taiwanese public firms are required to adopt IFRS, but their private subsidiaries can only use ROC GAAP now. These subsidiaries are also more likely to adopt IFRS for SMEs to achieve the consistency within the group (Boojihawon et al., 2007; Ministry of Economic Affairs, R.O.C., 2014a; Yazdifar et al., 2008).

Based on the findings of Chapter 5 to Section 9.3, Section 9.4 conducts a comparative analysis of accounting between UK and Taiwan. The economic growth rate in Taiwan is comparable to that in the UK. In the UK and Taiwan, the industry structures are similar, and the service sectors contribute the majority of total output. UK adopts IFRS much earlier than Taiwan. Generally, UK firms have more accounting choices than Taiwanese firms. Results obtained from UK and Taiwanese data suggest the usefulness of stated preference theory in studying financial reporting choices. In addition, UK and Taiwanese firms generally follow a rational net-benefit analysis when making free accounting decisions. The finding of nonparametric tests presents that both sampled UK and Taiwanese companies rarely regard the IFRS adoption as beneficial, from management's point of view (Fox et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). Moreover, the experience of compulsory IFRS adoption influences UK firms' accounting decisions when they can choose regimes and techniques freely. Specifically, sampled companies tend not to use IFRS for all of their accounts if they do not experience net benefits from adopting IFRS compulsorily (Cuijpers & Buijink, 2005). However, the impact of mandatory IFRS adoption is not clear in Taiwanese cases. This might be because Taiwanese firms rarely have free regime choices.

Additionally, UK and Taiwanese firms share similar views on IFRS. For example,

they mention that IFRS requires more disclosure which might be costly. They also indicate that adopting IFRS is beneficial for certain firms because it helps to attract investors. However, many Taiwanese companies addressed that the regulation of pensions under IFRS was very disadvantageous. This issue was not raised by the interviewed UK firms. Regarding the decision-making process in the two-stage choice model, three types of choice patterns was found in the cases of UK and Taiwanese firms. These choice forms are influenced by the relative significance of regime choices and technique choices (Birnbaum, 2010; Castano & Castano, 2012; Colman & Stirk, 1999).

The discussion in this chapter, based on the data of sampled firms, also provides several pieces of policy advice. Firstly, authorities should deliberate on how much choice and discretion in financial reporting is appropriate. The freedom of UK and Taiwanese companies in accounting is very different. Because of the constraint, members of a Taiwanese group might be forced to use different regimes. This will cause the inconsistency and is not good for the corporate group (Boojihawon et al., 2007; Yazdifar et al., 2008). In particular, Taiwanese authorities might consider allowing companies to adopt IFRS voluntarily. When introducing a new accounting policy, authorities might also need to consider the consistency across divisions of a group.

Secondly, authorities might take firm size into account when setting up the adoption framework. Presently, Taiwanese accounting regulation does not distinguish firms by its firm size. Smaller firms often have limited resources, and it is more costly for them to adopt a new regulation, compared to larger firms (Jones & Higgins, 2006; Schiebel, 2008).

Thirdly, sampled UK and Taiwanese firms point out that the current accounting rules are complicated (Peterson, 2012). Standard-setters should improve the consistency and simplicity of financial reporting regulations. They should not change the regulations too frequently. Fourthly, authorities should communicate well with companies when designing a new policy. They might also give enough preparation time for companies to be familiar with a new regulation. Many Taiwanese interviewees argued that they did not have enough time to execute after the regulation regarding IFRS was fixed.

Fifthly, UK and Taiwanese companies point out that a significant amount of information should be disclosed as required by IFRS. They think certain details would not be necessary and the IFRS disclosure is costly. Therefore, authorities should also try to find the balanced disclosure level, at which the information is useful for readers and not too costly for companies to prepare (Ajinkya et al., 2005). However, it is also important to note that a cost perceived by managers is not necessarily unbeneficial for other interest groups (Gwilliam et al., 2005; Schipper, 2010).

Chapter 10 Overview, Findings and Contributions

Financial reporting choice is one of the most significant current discussions in accounting research (Bowen et al., 2008; Fields et al., 2001; Holthausen, 1990). The thesis set out to establish a two-stage choice model of regimes and techniques, to investigate firms' financial reporting choices. It also assessed the potential for using a stated preference theory to calibrate companies' costs and benefits of implementing accounting modes. This study has explored multiple accounting choices, the relationship amongst various choices, and important accounting regulations and policies. Both Quantitative and Qualitative methods are used in this thesis (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). The aim of this chapter is to conclude this research. It is organised as follows: Firstly, Section 10.1 will summarise the findings of this thesis and explain their implications. Secondly, Section 10.2 will indicate the limitation and possible extensions of this work. Finally, Section 10.3 concludes this research.

10.1 Scope of Existing Research

A Two-Stage Choice Model of Financial Reporting Regimes and Techniques

This thesis first reviewed the literature related to accounting choices, and identified companies' two major decisions in financial reporting (see Chapter 2). They are regime choices and technique choices. A financial reporting regime is a whole system of accounting standards, such as the IFRS and the ROC GAAP. A financial reporting technique refers to a method which is available given a regime and is used to treat a specific aspect of financial reports. For example, capitalising and expensing

are two techniques to recognise development costs. Drawing on the literature of travel behaviour (Kelly et al., 2007), this research established a two-stage choice model of financial reporting modes (see Section 2.2.3 and Section 3.5). The first stage deals with companies' regime choices, and the second stage considers their technique choices.

As shown in Chapters 6 through 8, respondents in UK and Taiwanese companies think regime choices and technique choices are closely related. It is very common that firms evaluate available techniques when determining financial reporting regimes. The results support establishing a two-stage choice model to discuss regime choices and technique choices together because they will influence each other.

Applying this two-stage choice model, Chapter 3 summarised UK and Taiwanese firms' regime choices and technique choices using tables and decision trees. These methods presented companies' accounting choices in a more complete way and could be used in subsequent research. In the UK, IFRS, UK GAAP and FRSSE are major financial reporting regimes. In Taiwan, IFRS and ROC GAAP are two available regimes. The technique choices explored in this thesis are widely mentioned in accounting literature (Barth, 1994; Canibano et al., 2000; Cazavan-Jeny et al., 2011; Fields et al., 2001). They are techniques for valuing intangibles, treating development costs and valuing investments.

When companies face tied regime choices, this two-stage choice model is reduced to a one-stage choice problem. For instance, when UK and Taiwanese listed companies are required to adopt IFRS, they can only choose techniques allowed by IFRS. Therefore, their decision trees consist of only one regime alternative (viz., IFRS) and

technique options under this regime. This can be regarded as a one-stage choice model of financial reporting techniques.

This two-stage choice model integrated firms' different choices in financial reporting, and helped to analyse various accounting choices in a comprehensive way. It also showed the inherent connection between regime choices and technique choices. To the best of our knowledge, this is the first research which systematically considers companies' regime and technique choices together. Therefore, this thesis advances the research framework of accounting choices, and fills a knowledge gap in this field (Fields et al., 2001; Missonier-Piera, 2004). The two-stage choice model of regimes and techniques will also serve as a basis for future studies.

A Stated Preference Approach and Cost-Benefit Analysis

This thesis also introduced a new research method to the study of accounting choices and examined its usefulness in this area. This research emphasises management's view on accounting choices and their perceived accounting costs and benefits, although accounting standards have a wider impact, such as the impact on shareholders and regulators (Fields et al. 2001; Gwilliam et al., 2005). Chapter 2 elaborated that a stated preference approach might be useful to capture firms' preferences towards accounting choices (Adamowicz et al., 1994; Schipper, 2010). Following Reid and Smith's studies (2007a, 2007b), Chapter 4 demonstrated how companies' costs and benefits of adopting accounting modes could be calibrated using survey data. The costs and benefits were measured by a five point Likert Scale, and were used to calculate ratio and net utilities of implementing a regime or a technique. Since these costs and benefits are subjective, they will be different across

different people and may change over time (Mises, 1998). Chapter 5, 6, and 8 presented UK and Taiwanese firms' perceived costs and benefits of applying financial reporting modes. Chapter 9 showed UK and Taiwanese companies' expected costs and benefits of potential accounting modes. The study also conducted interviews to understand companies' rationale behind stated costs and benefits. In general, respondents' statements given during interviews support their perceived or anticipated costs and benefits. The findings suggest that this stated preference approach is useful to obtain companies' (current and future) adoption costs and benefits of accounting modes. This method may also be applied to study other accounting issues.

Moreover, the empirical results show that sampled companies' decisions are generally consistent with net utilities and ratio utilities, given free choices. When firms have free choices, they tend to adopt the accounting regime or technique, which generates the highest net-utilities. If all options bring negative net utilities, companies can only choose the one that is relatively better. The results of this study indicate that cost-benefit analysis is very helpful to study accounting choices. However, there are few special cases (see Chapter 5, 8, and 9). If all accounting alternatives lead to the same net and ratio utilities, companies might take into account the absolute levels of stated costs and benefits. If the levels of adoption costs and benefits are also the same, firms would make decisions by the fitness of regimes and techniques. Companies sometimes do not fully apply cost-benefit analysis to avoid incurring zero adoption benefit or to achieve a specific goal, such as the consistency within the group. When firms think a certain accounting form is much more suitable than others, they might also act contrary to cost-benefit analysis. As

there is a shortage of empirical work on accounting costs and benefits, this thesis makes an important contribution to the current literature by providing additional evidence and a new research instrument (Gwilliam et al., 2005; Meeks & Meeks, 2002; Schipper, 2010). The exceptions mentioned above also extend our knowledge of accounting decisions.

Decision-Making in Financial Reporting

This thesis has explored how companies make decisions in financial reporting, from various perspectives. For example, Chapter 7 and Chapter 8 investigated UK and Taiwanese firms' choice behaviours in the two-stage choice model of regimes and techniques using interview data. This study has found three types of decision-making processes in this two-stage choice model. Firstly, a company might choose its regime before considering technique choices. This is a sequential choice that starts from stage one and can be expressed by a lexicographic ordering (Birnbaum, 2010; Colman & Stirk, 1999). Secondly, a firm might select techniques and then determine its regime. This choice pattern is also sequential, but follows a colexicographic ordering (Castano & Castano, 2012). Thirdly, a company might decide regimes and techniques simultaneously. This is a nested choice (Bellemare & Barrett, 2006; Hensher, 1994). The results confirm our argument in Chapter 2 and Chapter 3 that there might be three choice patterns in this two-stage choice problem.

The findings also suggest that the choice behaviour depends on the relative significance of regime and technique choices (Castano & Castano, 2012; Colman & Stirk, 1999). When a firm puts more emphasis on regime choices, the first-type sequential choice (viz., a lexicographic ordering) is more likely to be observed. In

contrast, if technique choices concern a company more, the company tends to apply the colexicographic ordering. Additionally, a nested decision-making process often occurs when the relative importance is not obvious. When companies think various accounting regimes are similar, they might also make decisions as a whole, rather than in stages (refer to the examples of Company A and Company F in Chapter 7). The nested decision-making process should achieve an overall better result for the entire company. The results, from the sample used, suggests that companies' choice patterns in this two-stage choice model are related to firm-specific characteristics, such as companies' ownership (i.e., private or public) and future plans (e.g., the aim of being acquired by other firms).

As far as we know, this is the first study illustrating firms' decision-making processes of regime and technique choices. The empirical findings in this research provide a new understanding of companies' accounting decisions and contribute to the relevant literature (Cardinaels, 2008; Missonier-Piera, 2004; Trotman et al., 2011). The case of a UK private company (Company D) in Chapter 7 also indicated that companies could have different choice patterns at different times. This is because companies' goals or the relative importance of regime and technique choices change across time.

To the best of our knowledge, this is the first time that lexicographic and colexicographic orderings have been used to explain how companies determine regimes and techniques. This study strengthens the theoretical basis in this area and advances the literature (Fields et al., 2001). Furthermore, Chapter 2 and Chapter 3 have argued that the sequential logit model and the nested logit model could be used to estimate the lexicographic sequential choice and the nested choice, respectively

(Nagakura & Kobayashi, 2009; Van Ophem & Schram, 1997). Whilst this study did not apply these two logit models to test empirical data, it offers some insights into further estimation of accounting decisions.

In addition, Chapter 6 examined whether UK firms' regimes for consolidated accounts influence their regime choices for individual accounts. The investigation has shown that the consistency in financial reporting across the entire group is a major concern of UK companies (Boojihawon et al., 2007; Yazdifar et al., 2008). Therefore, firms' regimes for consolidated accounts play a crucial role in their regime choices for individual accounts. Chapter 6 also documented that public and private companies hold different opinions on consolidated and individual accounts. Public firms regard consolidated accounts as an important approach to communicate with investors, and put great emphasis on consolidated accounts. Nonetheless, a respondent in one UK private firm (Company D) claimed that the purpose of financial reports is to facilitate internal control. For this company, individual accounts and consolidated accounts are equally important. These findings also add additional information to accounting studies.

Moreover, case studies in Chapter 7 and 8 also have shown that companies use different methods to evaluate accounting choices. For instance, a UK private company (Company D) makes decisions subjectively and in stages because it emphasises the ease of execution. However, another UK company (Company A) decides regimes and techniques simultaneously, and the decisions are supported by relevant evidence to obtain precious accounting results. The findings imply that companies' accounting decisions are closely related to their objectives. Time pressure also affects firms' decision-making processes. For instance, respondents

have argued that when the time is limited, they might make decisions based on previous experiences or intuitions (Burmeister & Schade, 2007; Einhorn & Hogarth, 1981).

The investigation of IFRS adoption in Chapter 6 and Chapter 8 also revealed that in general sampled UK and Taiwanese companies prefer to report under the regimes (viz., UK GAAP and ROC GAAP) which they used before, if they do not see substantial benefits of using the new regime (viz., IFRS). The results are consistent with prior studies that firms might avoid changes in financial reporting and take advantage of free choices (Messier et al., 2014; W. Samuelson & Zeckhauser, 1988).

Important Accounting Issues and Recent Policy Changes

This thesis has considered several important accounting issues, such as the IFRS adoption. Both quantitative and qualitative approaches are used to analyse firm data (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). Chapter 3 reviewed the advantages and disadvantages of implementing IFRS, particularly in the settings of the UK and Taiwan. Since existing empirical studies have produced mixed results, researchers have asked for more evidence on costs and benefits of using IFRS (Bruggemann et al., 2013; Daske, 2006; Singleton-Green, 2015). This study was designed to calibrate firms' overall adoption costs and benefits to extend our knowledge of IFRS. The results of nonparametric tests suggest that, from management's point of view, sampled UK and Taiwanese companies often do not receive additional benefits from reporting under IFRS (see Section 5.2 and Section 8.2). The findings imply that a tied accounting choice might not be an optimal choice for all companies. Case studies also support this argument (see Chapter 6 and Section

8.3). It is well recognised by UK and Taiwanese companies that adopting IFRS is more costly compared to using local GAAP. Respondents explained that firms have to disclose detailed information and undertake more estimation under IFRS. Taken together, these results imply that some companies would not implement IFRS if it were not mandatory. These results are in agreement with Jermakowicz and Gornik-Tomaszewski's (2006) findings. Since Taiwan introduced IFRS eight years later than the UK, this study shows that the results are robust across different times and countries.

Additionally, this research has shown that firms that aim to IPO, issue DRs or expand their global market might find IFRS attractive (DeFond et al., 2011). The findings of this thesis also indicate that smaller firms or subsidiaries generally perceive a higher level of adoption costs of IFRS, compared to larger firms. The reason might be that larger companies have more resources, and IFRS is designed for public companies (IASB, 2012; Jones & Higgins, 2006). These results suggest that standard-setters should take into account firm size and other characteristics when establishing accounting regulations.

UK publicly listed companies have been required to adopt IFRS for their consolidated accounts since 2005. They can decide whether or not to use IFRS for their individual accounts. Chapter 6 investigated whether compulsory IFRS adoption influenced companies' other accounting choices. The results indicate that UK listed firms' compulsory adoption of IFRS heavily influenced their regime choices for individual accounts. If a company does not perceive a positive net utility from implementing IFRS for consolidated accounts, it is very likely to take advantage of free choices (Cuijpers & Buijink, 2005). In this situation, firms tend to use other

regimes, such as UK GAAP, for their individual accounts. Chapter 6 also elaborated on an interesting case wherein a UK public company (Company B) perceived a zero net utility from applying IFRS but chose to use IFRS for its individual accounts to maintain the consistency in the organisation. The discussion in Chapter 6 has shown that UK public companies often evaluate the consistency benefits and the transition costs when they determine regimes for individual accounts. Additionally, although UK private firms have free regime choices, the enforcement of IFRS still has an impact on them. When their competitors are listed companies, they have incentives to adopt IFRS to enhance the comparability of financial reports across firms. These results suggest that authorities should be more careful when designing an accounting policy, because it might have a wider impact on companies.

Furthermore, Chapter 8 explored whether Taiwanese firms' adoption costs and benefits of IFRS affect their decisions on early adoption since 2012. It was shown that companies' stated costs and benefits reflect their incentives of using IFRS. Although some sampled Taiwanese companies perceived more benefits of applying IFRS than others, none of them chose to adopt IFRS early. The interviewees stated that they also considered whether the majority of their competitors choose to adopt IFRS early and whether they have enough preparation time. They also questioned whether early adoption matters in terms of time. Since early adoption (from 2012) is only one year earlier than normal adoption (from 2013), respondents argued that there is not much difference between early and normal adoption. One implication of this is that adoption benefits should reach a certain level for companies to choose to implement IFRS early. As indicated earlier in this section, Taiwanese firms, which in general did not perceive positive net benefits from using IFRS, might not adopt IFRS

voluntarily. IFRS is widely applied all over the world and various countries are evaluating whether or to adopt it (Ball, 2006; Barth et al., 2012). The findings of this study aid in our understanding of the impact of IFRS, and contribute to a growing body of literature on IFRS.

In addition to regime choices, this thesis explored how companies choose techniques for valuing intangibles and investments, and treating development. As indicated earlier in this chapter, UK and Taiwanese firms' technique choices generally match their perceived costs and benefits of adoption. It can be observed from case studies (Section 5.3 and Section 8.4) that the cost approach for valuing intangibles and investments is less costly to adopt, compared to the other approaches. Therefore, the cost approach is often implemented. When deciding techniques, companies also consider the suitability of techniques. The evidence from this research implies that firms' technique decisions depend on both the fitness of accounting forms and the adoption utilities.

This research also discussed recent policy changes in the UK and Taiwan. The New UK GAAP, including FRS 101 and FRS 102, was introduced in the UK in 2015, with the choice of early adoption (see Chapter 3 and Chapter 9). Section 9.2 showed that UK companies have incentives to adopt FRS 101 for their individual accounts. This is because FRS 101, the reduced IFRS framework, permits companies to retain consistency across the whole group with lower costs. For firms who applied UK GAAP before 2015, some of them will continue to report under the FRS 102, which is closer to the current UK GAAP. However, some of them claimed that they will use other regimes because they found a specific treatment of FRS 102 disadvantageous.

In Taiwan, the accounting authority is considering the introduction of IFRS for SMEs to private companies (refer to Chapter 3 and Chapter 9). The investigation in Section 9.3 shows that local or smaller firms generally do not expect to receive any net benefits from using IFRS for SMEs. Nevertheless, companies that wish to IPO, be acquired by other firms or expand its markets internationally think that adopting IFRS for SMEs is beneficial and will improve the comparability of financial reports. It was also observed that subsidiaries of Taiwanese public firms might be willing to adopt IFRS for SMEs to be consistent with their parent companies. The Taiwanese accounting authority amended accounting regulations for private firms in the middle of 2014. The new law is designed to be consistent with IFRS. The results of this research imply that firms, which aim to enhance the comparability and the consistency of financial reports and to attract international investors, might find this new regulation favourable. However, adopting this new law might be too costly for small or local firms.

The results, obtained from the sampled used, suggests that firm-specific characteristics will influence companies' perceived costs and benefits of accounting modes, and therefore affect the choice outcome. These characteristics include firm size, the types of ownership, and the focus of capital markets.

Furthermore, the comparative analysis of the UK and Taiwanese accounting practices provide several policy implications (see Chapter 3 and Chapter 9). Firstly, it was shown that UK firms have more accounting choices than Taiwanese firms. For example, UK private companies can voluntarily adopt IFRS, and UK listed companies can decide freely whether to use IFRS for their individual accounts. This option is not given to Taiwanese firms. Most of the time, there is only one regime

available to them. Therefore, Taiwanese companies in the same corporate group might be required to use different regimes. These findings indicate that standard-setters should take into account the consistency of a group and carefully consider any restrictions on the freedom of financial reporting choices. Furthermore, it was revealed that UK accounting authorities pay more attention to firm size than Taiwanese regulators. Small firms are very different from large firms in terms of resources and markets. The results of this study suggest that firm size should be considered in the establishment of accounting regulations, to avoid overburdening small companies. Additionally, UK and Taiwanese companies pointed out that regulatory bodies should enhance the consistency and simplicity of accounting standards, and allow enough time for firms to comply with new laws. Moreover, both UK and Taiwanese companies mentioned that IFRS requires very detailed disclosures, some of which might not be necessary. Hence, it is important for standard-setters to select a disclosure level at which financial reports are transparent and useful, but not too burdensome to prepare (Ajinkya et al., 2005).

10.2 Scope for Development and Future Research

Our sample consists of a variety of firms. It covers firms in different industries, public and private firms, and micro, small, medium, and large companies. This thesis has generated interesting and practical insights. However, because of the small sample size, the results of this work might not reflect the population of UK and Taiwanese firms. As with other surveys, the findings of this work are also subject to the accuracy and the completeness of the responses (Jermakowicz & Gornik-Tomaszewski, 2006).

Accounting information is confidential and respondents must be very knowledgeable in order to participate in this research. Although the response rate of this study is low, the data has already been highly structured. Therefore, the results are significant even with the small sample. Following this current study, further research might conduct a larger scale of survey to investigate accounting issues discussed in this thesis. It would be interesting to compare our results with the new evidence obtained from a larger sample (Bruggemann et al., 2013; Jermakowicz & Gornik-Tomaszewski, 2006). Therefore, a larger sampling frame is suggested. This can be done through potential collaborations with academic institutes, such as the National Taiwan University and the National Tsing Hua University, which were very helpful in the data collection of this thesis. For example, a joint project might help to enhance the scale of the current study. The existing research, emphasising UK and Taiwanese practices, can also be expanded to investigate accounting decisions of companies in other countries. A cross-national study, involving more countries, would further enhance our understanding of choice behaviour in financial reporting (Kvaal & Nobes, 2010).

This current research argued that the sequential logit model and nested logit model could be used to estimate companies' decision-making processes. The current study was limited by data and did not apply these two logit models to analyse empirical data. When data in a larger sample is available, further research could assess the potential for using the sequential and nested logit models to document firms' choice patterns. This should advance the econometric techniques in this field (Fields et al., 2001; Simnett et al., 2009).

Furthermore, since there are a considerable number of accounting choices, this research can only examine several of many important issues. It was unable to take into account all choices in financial reporting. The two-stage choice model of regimes and techniques established in this thesis is a good foundation to explore companies' accounting choices. It is recommended that further research be undertaken to investigate other regime and technique choices based on this model. For instance, as mentioned in Section 9.4, the key considerations of UK and Taiwanese companies in financial reporting include the treatments of financial instruments, taxes, liability, revenue, cash flows, business combinations and pensions. Hence, a further study might investigate how companies choose these financial reporting techniques.

Additionally, this thesis discovered how firms make decisions when facing multiple choices. This research shows that companies, which aim to IPO or to be purchased by other firms, tend to prioritise regime choices because they have strong incentives to adopt the regime that the majority of firms use. Further investigation into whether other firm-specific characteristics influence companies' choice behaviour would be of great help in extending our knowledge of accounting decisions. In particular, with a larger sample, it would be interesting to assess whether companies with various sizes (e.g., large companies and SMEs) behave differently in the two-stage choice model of financial reporting regimes and techniques (Graham et al., 2005; Reid & Smith 2007a; Schiebel, 2008).

Moreover, this current study introduces lexicographic and colexicographic preference orderings to illustrate companies decision-making processes. It also demonstrates that the objectives of firms have a crucial impact on their choice

behaviour. It is needed to examine more closely the link between companies' choice patterns and their goals. For instance, further work exploring how firm-specific attributes, such as organisational structures and forms of ownership, affect their objectives and choice patterns would be worthwhile (Doyle et al., 2007). It would also be interesting to examine how the nested choices are made in detail.

Accounting regulations have an impact on businesses, investors, and regulators (Gwilliam et al., 2005). This thesis emphasises companies' costs and benefits of adopting accounting modes, specifically from the managers' point of view. It does not consider other stakeholders' accounting costs and benefits. Further investigations are needed to measure associated financial reporting costs and benefits, to provide a complete picture of accounting regulations. The stated preference approach shown in this thesis should be a useful method for subsequent research (Schipper, 2010). In addition, the US and other countries are now debating whether or not they should introduce IFRS (Barth et al., 2012). More research is needed to investigate the IFRS adoption utilities of companies in these countries. It is particularly important to measure and compare the adoption utilities of IFRS and those of local GAAPs (e.g., US GAAP). The results should provide crucial policy insights and contribute to the relevant literature (Bruggemann et al., 2013; Daske, 2006). The current work has discussed recent policy changes in the UK and Taiwan and shown companies' expected costs and benefits of adopting accounting modes. It would also be interesting to examine whether their actual choices are consistent with their anticipated actions.

Furthermore, this study discusses both free and tied accounting choices. It has shown that Taiwanese and UK companies generally apply a rational net-benefit analysis

when they have free regime and technique choices. However, it is also found that these firms seldom experience net benefits of mandatory IFRS adoption. Hence, a tied choice might not be ideal for companies in terms of adoption utilities. Companies sometimes have to comply with the regulations, which are not beneficial for them. This creates an appetite for companies to engage in and lobby for policy changes. It is recommended that further research be undertaken in companies' adoption utilities of other new accounting regulations, which would have important implications for future practice.

10.3 Conclusion

In conclusion, this thesis applied quantitative and qualitative methods to study companies' accounting choices and established a two-stage choice model (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). The first stage models regime choices and the second stage explores technique choices. This model considers multiple choices at the same time and provides a more complete picture of accounting choices. It makes an important contribution to the relevant academic literature and can be adopted in future studies (Fields et al., 2001; Missonier-Piera, 2004). Furthermore, this research documents two sequential and one nested decision-making processes in this two-stage choice model. It also introduces lexicographic and colexicographic to explain sequential choices. The results enhance our understanding of financial reporting choices. These concepts can also be used to further investigate firms' other regime and technique choices.

In addition, a stated preference approach was introduced in this thesis to measure companies' costs and benefits from implementing an accounting mode. From these

stated costs and benefits, which are based on managers' preferences, firms' adoption utilities were calibrated. The results show the usefulness of this approach. It is found that companies in general choose the regime or technique with the highest net benefit, given free choices. This approach contributes to the knowledge in this area and will be very helpful for future work on accounting costs and benefits (Gwilliam et al., 2005; Schipper, 2010).

The data of this thesis was collected from UK and Taiwanese companies through face-to-face interviews and questionnaires. The results of this study show that UK and Taiwanese firms rarely perceive net benefits from adopting IFRS. Our research methods can be applied to a large sample of firms, including firms in other countries. In particular, a further investigation of the adoption utilities of IFRS will contribute to the ongoing debate on IFRS (Barth et al., 2012; Bruggemann et al., 2013; Singleton-Green, 2015).

References

The Accounting Research and Development Foundation in Taiwan. (2014) *Statements of Financial Accounting Standards.* 2014. Retrieved March 20, 2014, from http://www.ardf.org.tw/ardf.html

The Accounting Standards Board (ASB). (2008). *Financial Reporting Standard: Financial Reporting Standard for Smaller Entities (Effective April 2008)*. Retrieved from https://www.frc.org.uk/Our-Work/Publications/ASB/FRSSE-(effective-April-2008)-(issued-June-2008).pdf

The Accounting Standards Board (ASB). (2012). *Financial Reporting Exposure Draft: The Future of Financial Reporting in the UK and Republic of Ireland*. Retrieved from https://frc.org.uk/Our-Work/Publications/ASB/Revised-FRED-The-Future-of-Financial-Reporting-%281%29-File.pdf

The Accounting Standards Board (ASB). (2013). *Financial Reporting Standard for Smaller Entities (Effective January 2015)*. Retrieved from https://www.frc.org.uk/Our-Work/Publications/Accounting-and-Reporting-Policy/FRSSE-%28effective-January-2015%29.aspx

Adamowicz, W., Louviere, J., & Williams, M. (1994). Combining revealed and stated preference methods for valuing environmental amenities. *Journal of Environmental Economics and Management*, *26*(3), 271-292.

Adamowicz, W., Swait, J., Boxall, P., Louviere, J., & Williams, M. (1997). Perceptions versus objective measures of environmental quality in combined revealed and stated preference models of environmental valuation. *Journal of Environmental Economics and Management*, *32*(1), 65-84.

Agoglia, C. P., Doupnik, T. S., & Tsakumis, G. T. (2011). Principles-based versus rules-based accounting standards: The influence of standard precision and audit committee strength on financial reporting decisions. *The Accounting Review*, *86*(3), 747-767.

Agrawal, O. P., & Salinas, N. (1988). Sharp kernels and canonical subspaces

(revised). *American Journal of Mathematics*, *110*(1), 23-47.

Ahmed, K., & Courtis, J. K. (1999). Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis. *The British Accounting Review*, *31*(1), 35-61.

Ahmed, K., & Falk, H. (2006). The value relevance of management's research and development reporting choice: Evidence from Australia. *Journal of Accounting and Public Policy*, *25*(3), 231-264.

Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research*, *43*(3), 343-376.

Alam, I. M. S. (2001). A nonparametric approach for assessing productivity dynamics of large US banks. J*ournal of Money, Credit and Banking*, 121-139.

Amel-Zadeh, A., Lev, B., & Meeks, G. (2013). *The benefits and costs of managerial earnings forecasts in mergers and acquisitions.* Retrieved January 5, 2015 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2198958

Amershi, A. H., Demski, J. S., & Wolfson, M. A. (1982). Strategic behavior and regulation research in accounting. *Journal of Accounting and Public Policy*, *1*(1), 19-32.

Anderson, M. J. (1988). A comparative analysis of information search and evaluation behavior of professional and non-professional financial analysts. *Accounting, Organizations and Society*, *13*(5), 431-446.

Archambault, J. J., & Archambault, M. E. (2009). An analysis of social factors influencing the adoption of International Financial Reporting Standards. *Journal for Global Business Advancement*, *2*(1), 38-53.

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. *The Accounting Review, 85*(1), 31-61.

The Association of Chartered Certified Accountants (ACCA). (2013). *Technical Factsheet 181: FRS 102-making the transition to new UK GAAP*. Retrieved from http://www.accaglobal.com/content/dam/ACCA_Global/Technical/fact/technical-fact

sheet-181.pdf

Atwood, T. J., Drake, M. S., Myers, J. N., & Myers, L. A. (2011). Do earnings reported under IFRS tell us more about future earnings and cash flows? *Journal of Accounting and Public Policy*, *30*(2), 103-121.

Azevedo, C. D., Herriges, J. A., & Kling, C. L. (2003). Combining revealed and stated preferences: consistency tests and their interpretations. *American Journal of Agricultural Economics*, *85*(3), 525-537.

Badertscher, B. A. (2011). Overvaluation and the choice of alternative earnings management mechanisms. *The Accounting Review*, *86*(5), 1491-1518.

Ball, R. (2006). International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and Business Research*, *36*(sup1), 5-27.

Bamber, L. S., Jiang, J., Petroni, K. R., & Wang, I. Y. (2010). Comprehensive income: Who's afraid of performance reporting? *The Accounting Review*, *85*(1), 97-126.

Barth, M. E. (1994). Fair value accounting: evidence from investment securities and the market valuation of banks. *The Accounting Review, 69*(1), 1-25.

Barth, M. E., & Clinch, G. (1998). Revalued financial, tangible, and intangible assets: Associations with share prices and non-market-based value estimates. *Journal of Accounting Research*, 199-233.

Barth, M. E., Landsman, W. R., Lang, M., & Williams, C. (2012). Are IFRS-based and US GAAP-based accounting amounts comparable? *Journal of Accounting and Economics*, *54*(1), 68-93.

Barth, M. E., Landsman, W. R., Young, D., & Zhuang, Z. (2014). Relevance of differences between net income based on IFRS and domestic standards for European firms. *Journal of Business Finance & Accounting*, *41*(3-4), 297-327.

Bauer, J. M. (1997). Market power, innovation, and efficiency in telecommunications: Schumpeter reconsidered. *Journal of Economic Issues*, *31*(2), 557-565.

Beatty, A., & Weber, J. (2006). Accounting discretion in fair value estimates: An examination of SFAS 142 goodwill impairments. *Journal of Accounting*

Research, *44*(2), 257-288.

Beatty, T. K., & Crawford, I. A. (2011). How demanding is the revealed preference approach to demand? *The American Economic Review*, *101*(6), 2782-2795.

Beirao, G., & Cabral, J. S. (2007). Understanding attitudes towards public transport and private car: A qualitative study. *Transport policy*, *14*(6), 478-489.

Bekmetjev, A., Brightwell, G., Czygrinow, A., & Hurlbert, G. (2003). Thresholds for families of multisets, with an application to graph pebbling. *Discrete Mathematics*, *269*(1), 21-34.

Bellemare, M. F., & Barrett, C. B. (2006). An ordered Tobit model of market participation: Evidence from Kenya and Ethiopia. *American Journal of Agricultural Economics*, *88*(2), 324-337.

Benartzi, S., & Thaler, R. (2007). Heuristics and biases in retirement savings behavior. *Journal of Economic Perspectives*, *21*(3), 81-104.

Benjamin, D. J., Heffetz, O., Kimball, M. S., & Szembrot, N. (2014). Beyond happiness and satisfaction: toward well-being indices based on stated preference. *The American Economic Review*, *104*(9), 2698-2735.

Benston, G. J., Bromwich, M., & Wagenhofer, A. (2006). Principles-versus rules-based accounting standards: the FASB's standard setting strategy. *Abacus*, *42*(2), 165-188.

Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, *50*(2), 296-343.

Bianchi, P., & Labory, S. (2004). *The economic importance of intangible assets*. England: Ashgate Publishing Limited.

Bierlaire, M., Bolduc, D., & McFadden, D. (2008). The estimation of generalized extreme value models from choice-based samples. *Transportation Research Part B: Methodological*, *42*(4), 381-394.

Birnbaum, M. H. (2010). Testing lexicographic semiorders as models of decision

making: Priority dominance, integration, interaction, and transitivity. *Journal of Mathematical Psychology*, *54*(4), 363-386.

Boojihawon, D. K., Dimitratos, P., & Young, S. (2007). Characteristics and influences of multinational subsidiary entrepreneurial culture: The case of the advertising sector. *International Business Review*, *16*(5), 549-572.

Bouwman, M. J., Frishkoff, P. A., & Frishkoff, P. (1987). How do financial analysts make decisions? A process model of the investment screening decision. *Accounting, Organizations and Society*, *12*(1), 1-29.

Bova, F., & Pereira, R. (2012). The determinants and consequences of heterogeneous IFRS compliance levels following mandatory IFRS adoption: Evidence from a developing country. *Journal of International Accounting Research*, *11*(1), 83-111.

Bowen, R. M., DuCharme, L., & Shores, D. (1995). Stakeholders' implicit claims and accounting method choice. *Journal of Accounting and Economics*, *20*(3), 255-295.

Bowen, R. M., Rajgopal, S., & Venkatachalam, M. (2008). Accounting discretion, corporate governance, and firm performance. *Contemporary Accounting Research*, *25*(2), 351-405.

Bresnahan, T. F., Brynjolfsson, E., & Hitt, L. M. (2002). Information technology, workplace organization and the demand for skilled labor: firm-level evidence. *The Quarterly Journal of Economics, MIT Press*, *117*(1), 339-376. Retrieved from http://www.nber.org/papers/w7136

Bridges, J. F. (2003). Stated preference methods in health care evaluation: an emerging methodological paradigm in health economics. *Applied Health Economics and Health Policy*, *2*(4), 213-224.

Brochet, F., Jagolinzer, A. D., & Riedl, E. J. (2013). Mandatory IFRS adoption and financial statement comparability. *Contemporary Accounting Research*, *30*(4), 1373-1400.

Brown, J. R., Fazzari, S. M., & Petersen, B. C. (2009). Financing innovation and growth: Cash flow, external equity, and the 1990s R&D boom. *The Journal of Finance*, *64*(1), 151-185.

Bruggemann, U., Hitz, J. M., & Sellhorn, T. (2013). Intended and unintended consequences of mandatory IFRS adoption: A review of extant evidence and suggestions for future research. *European Accounting Review, 22*(1), 1-37.

Burmeister, K., & Schade, C. (2007). Are entrepreneurs' decisions more biased? An experimental investigation of the susceptibility to status quo bias. *Journal of Business Venturing, 22*(3), 340-362.

Bushman, R. M., & Williams, C. D. (2012). Accounting discretion, loan loss provisioning, and discipline of banks' risk-taking. *Journal of Accounting and Economics, 54*(1), 1-18.

Cairns, D. (2006). The Use of Fair Value in IFRS. *Accounting in Europe, 3*(1), 5-22.

Cairns, D., Massoudi, D., Taplin, R., & Tarca, A. (2011). IFRS fair value measurement and accounting policy choice in the United Kingdom and Australia. *The British Accounting Review, 43*(1), 1-21.

Callao, S., Jarne, J. I., & 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), 148-178.

Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: methods and applications*. New York: Cambridge University Press.

Canibano, L., Garcia-Ayuso, M., & Sanchez, P. (2000). Accounting for intangibles: A literature review. *Journal of Accounting Literature, 19*, 102-130.

Cardinaels, E. (2008). The interplay between cost accounting knowledge and presentation formats in cost-based decision-making. *Accounting, Organizations and Society, 33*(6), 582-602.

Carroll, T. J., Linsmeier, T. J., & Petroni, K. R. (2003). The reliability of fair value versus historical cost information: Evidence from closed-end mutual funds. *Journal of Accounting, Auditing & Finance, 18*(1), 1-24.

Castano, J. M., & Castano, R. (2012). A finite state intersection approach to propositional satisfiability. *Theoretical Computer Science, 450*, 92-108.

Cazavan-Jeny, A., Jeanjean, T., & Joos, P. (2011). Accounting choice and future performance: The case of R&D accounting in France. *Journal of Accounting and Public Policy*, *30*(2), 145-165.

Chauvin, K. W., & Hirschey, M. (1993). Advertising, R&D expenditures and the market value of the firm. *Financial Management*, *22*(4), 128-140.

Chirinko, R. S., & Schaller, H. (2004). A revealed preference approach to understanding corporate governance problems: Evidence from Canada. *Journal of Financial Economics*, *74*(1), 181-206.

Chou, L. T., & Lin, L. F. (2012). *Accounting Education Trends in the IFRS Era: Taiwan Experience* [PDF document]. Retrieved from http://210.101.116.28/W_files/kiss5/2w502198_pv.pdf

Christensen, H. B., Hail, L., & Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting and Economics*, *56*(2), 147-177.

Christensen, H. B., Lee, E., & Walker, M. (2009). Do IFRS reconciliations convey information? The effect of debt contracting. *Journal of Accounting Research*, *47*(5), 1167-1199.

Cohen, J., Krishnamoorthy, G., & Wright, A. M. (2002). Corporate governance and the audit process. *Contemporary Accounting Research*, *19*(4), 573-594.

Cole, V., Breesch, D., & Branson, J. (2009) Are users of financial statements of publicly and non-publicly traded companies different or not? An empirical study. Retrieved October 11, 2014, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1407566

Collins, D. L., Pasewark, W. R., & Riley, M. E. (2012). Financial reporting outcomes under rules-based and principles-based accounting standards. *Accounting Horizons*, *26*(4), 681-705.

Colman, A. M., & Stirk, J. A. (1999). Singleton bias and lexicographic preferences among equally valued alternatives. *Journal of Economic Behavior & Organization*, *40*(4), 337-351.

Cooper, D. J., & Morgan, W. (2008). Case study research in accounting. *Accounting*

Horizons, 22(2), 159-178.

Covrig, V. M., Defond, M. L., & Hung, M. (2007). Home bias, foreign mutual fund holdings, and the voluntary adoption of international accounting standards. *Journal of Accounting Research, 45*(1), 41-70.

Cox, D. R., & Stuart, A. (1955). Some quick sign tests for trend in location and dispersion. *Biometrika, 42*(1/2), 80-95.

Cuijpers, R., & Buijink, W. (2005). Voluntary adoption of non-local GAAP in the European Union: A study of determinants and consequences. *European Accounting Review, 14*(3), 487-524.

Daske, H. (2006). Economic benefits of adopting IFRS or US-GAAP–have the expected cost of equity capital really decreased? *Journal of Business Finance & Accounting*, *33*(3-4), 329-373.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research*, *46*(5), 1085-1142.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. *Journal of Accounting Research*, *51*(3), 495-547.

De Franco, G., Kothari, S. P., & Verdi, R. S. (2011). The benefits of financial statement comparability. *Journal of Accounting Research*, *49*(4), 895-931.

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.

DeFusco, R. A., Johnson, R. R., & Zorn, T. S. (1990). The effect of executive stock option plans on stockholders and bondholders. *The Journal of Finance, 45*(2), 617-627.

Delavande, A. (2008). Pill, patch, or shot? subjective expectations and birth control choice. *International Economic Review, 49*(3), 999-1042.

Deloitte. (2015). *IAS 39-Financial Instruments: recognition and measurement*. Retrieved February 18, 2015, from http://www.iasplus.com/en/standards/ias/ias39

Deloitte Taiwan. (2009). *Deloitte Newsletter*. Retrieved December 4, 2014, from http://www.deloitte.com/view/tc_tw/tw/3086562438b2d210VgnVCM1000001a56f00aRCRD.htm

Deloitte Taiwan. (2010a). *IFRS 對企業之影響* [The impact of IFRS on businesses]. Retrieved October 5, 2013, from http://www.twse.com.tw/ch/listed/download/IFRS000C19.pdf

Deloitte Taiwan. (2010b). *IFRS 下之公允價值衡量* [Measurement of fair value under IFRS]. Retrieved March 8, 2015, from http://www.twse.com.tw/ch/listed/download/IFRS000B48.3).pdf

Deloitte Taiwan. (2011a). *接軌 IFRSs* [Connecting to IFRS]. Retrieved October 3, 2013 from http://www.twse.com.tw/ch/listed/download/IFRS000A20.pdf

Deloitte Taiwan. (2011b). *適用 IFRS 對退休金精算之影響* [The impact of IFRS adoption on actuarial pension valuations]. Retrieved November 9, 2014, from http://www.deloitte.com/view/tc_tw/tw/dda8b3f7659d0310VgnVCM2000001b56f00aRCRD.htm

Deloitte Taiwan. (2012). *如何看懂國際財務報導準則(IFRSs)財務報表 做出正確之投資策略* [How to read IFRS financial reports to create good investment strategies] [PDF document]. Retrieved from http://www.twse.com.tw/ch/listed/IFRS/doc/learning/%7B4ACB470B-2110-DC2E-72E9-CEE61F675644%7D.pdf

Deloitte Taiwan. (2014). *Newsletter August 2014*. Retrieved from http://www2.deloitte.com/content/dam/Deloitte/tw/Documents/process-and-operations/tw_2014.08newsletter.pdf

Department of Statistics, Ministry of the Interior, R.O.C.. (2014). *Statistical Yearbook of Interior.* Retrieved November 22, 2014, from http://www.moi.gov.tw/stat/index.aspx

Depoers, F. (2000). A cost benefit study of voluntary disclosure: Some empirical evidence from French listed companies. *European Accounting Review, 9*(2),

245-263.

Di Pietra, R., Evans, L., Chevy, J., Cisi, M., Eierle, B., Jarvis, R., & 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), 27-47.

Dickhaut, J. W., & Lere, J. C. (1983). Comparison of accounting systems and heuristics in selecting economic optima. *Journal of Accounting Research*, 495-513.

Dietrich, J. R., Kachelmeier, S. J., Kleinmuntz, D. N., & Linsmeier, T. J. (2001). Market efficiency, bounded rationality, and supplemental business reporting disclosures. *Journal of Accounting Research*, *39*(2), 243-268.

Dhaliwal, D. S., Salamon, G. L., & Dan Smith, E. (1982). The effect of owner versus management control on the choice of accounting methods. *Journal of Accounting and Economics*, *4*(1), 41-53.

Doyle, J., Ge, W., & McVay, S. (2007). Determinants of weaknesses in internal control over financial reporting. *Journal of Accounting and Economics*, *44*(1), 193-223.

Dye, R. A. (1985). Strategic accounting choice and the effects of alternative financial reporting requirements. *Journal of Accounting Research*, *23*(2), 544-574.

Einhorn, H. J., & Hogarth, R. M. (1981). Behavioral decision theory: Processes of judgment and choice. *Journal of Accounting Research*, *19*(1), 1-31.

Ernst & Young. (2011a) *UK GAAP vs. IFRS, the basics.* Retrieved from http://www.ey.com/Publication/vwLUAssets/UK_GAAP_v_IFRS_-_The_basics_-_Spring_2011/$FILE/EY_UK_GAAP_vs_IFRS_-_The%20basics_-_Spring_2011%20.pdf

Ernst & Young. (2011b). *Valuation of intangibles under IFRS 3R, IAS 36, and IAS 38* [PDF document]. Retrieved from http://www.oecd.org/tax/transfer-pricing/47421362.pdf

Ernst & Young Taiwan. (2009) *我國財務會計準則與 IFRS 主要差異解析* [The major differences between ROC GAAP and IFRS] [PDF document]. Retrieved from

http://www.twse.com.tw/ch/listed/IFRS/doc/activity/%7BA93FA6BC-1475-4A58-7A39-ABC9EA092A06%7D.pdf

E.Sun Bank. (2009). I*FRS對國內企業之衝擊與因應* [The impact of IFRS on Taiwanese companies and the preparation for IFRS adoption]. Retrieved October 3, 2013, from http://www.esunbank.com.tw/about/1198.essay

Ewert, R., & Wagenhofer, A. (2005). Economic effects of tightening accounting standards to restrict earnings management. *The Accounting Review*, *80*(4), 1101-1124.

Farneti, F., & Guthrie, J. (2009). Sustainability reporting by Australian public sector organisations: Why they report. *Accounting Forum*, *33*(2), 89-98.

Fearnley, S., & Hines, T. (2007). How IFRS has destabilised financial reporting for UK non-listed entities. *Journal of Financial Regulation and Compliance*, *15*(4), 394-408.

Fekete, S., Matis, D., & Lukacs, J. (2008) *Factors influencing the extent of corporate compliance with IFRS - The case of Hungarian listed companies*. Retrieved October 5, 2014 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1295722

Ferrell, O. C., & Skinner, S. J. (1988). Ethical behavior and bureaucratic structure in marketing research organizations. *Journal of Marketing Research*, *25*(1), 103-109.

Fields, T. D., Lys, T. Z., & Vincent, L. (2001). Empirical research on accounting choice. *Journal of Accounting and Economics*, *31*(1), 255-307.

The Financial Reporting Council (FRC). (2014). *FRSSE*. Retrieved February 4, 2015, from https://www.frc.org.uk/Our-Work/Codes-Standards/Accounting-and-Reporting-Policy/FRSSE.aspx

Fishburn, P. C. (1974). Lexicographic orders, utilities and decision rules: A survey. *Management Science*, *20*(11), 1442-1471.

Florian, M. (1977). A traffic equilibrium model of travel by car and public transit modes. *Transportation Science*, *11*(2), 166-179.

Fox, A., Hannah, G., Helliar, C., & Veneziani, M. (2013). The costs and benefits of IFRS implementation in the UK and Italy. *Journal of Applied Accounting Research*, *14*(1), 86-101.

Francis, J. R. (1987). Lobbying against proposed accounting standards: the case of employers' pension accounting. *Journal of Accounting and Public Policy*, *6*(1), 35-57.

Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review*, *84*(2), 467-496.

Franks, J. R., Schaefer, S. M., & Staunton, M. D. (1997). The direct and compliance costs of financial regulation. *Journal of Banking & Finance*, *21*(11), 1547-1572.

Fridstrom, L., & Elvik, R. (1997). The barely revealed preference behind road investment priorities. *Public Choice*, *92*(1-2), 145-168.

Fujii, S., & Garling, T. (2003). Application of attitude theory for improved predictive accuracy of stated preference methods in travel demand analysis. *Transportation Research Part A: Policy and Practice*, *37*(4), 389-402.

Garling, T., & Schuitema, G. (2007). Travel demand management targeting reduced private car use: effectiveness, public acceptability and political feasibility. *Journal of Social Issues*, *63*(1), 139-153.

Ghosh, D., & Olsen, L. (2009). Environmental uncertainty and managers' use of discretionary accruals. *Accounting, Organizations and Society*, *34*(2), 188-205.

Gillham, B. (2000). *Developing a questionnaire*. London: Continuum.

Gordon, M. J. (1964). Postulates, principles and research in accounting. *The Accounting Review*, *39*(2), 251-263.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, *40*(1), 3-73.

Griffin, S. C., Claxton, K. P., Palmer, S. J., & Sculpher, M. J. (2011). Dangerous omissions: the consequences of ignoring decision uncertainty. *Health Economics*, *20*(2), 212-224.

Griffiths, W., & Webster, E. (2010). What governs firm-level R&D: Internal or external factors?. *Technovation*, *30*(7), 471-481.

Guerreiro, M. S., Rodrigues, L. L., & Craig, R. (2012). Factors influencing the preparedness of large unlisted companies to implement adapted International Financial Reporting Standards in Portugal. *Journal of International Accounting, Auditing and Taxation*, *21*(2), 169-184.

Gul, F. A. (2001). Free cash flow, debt-monitoring and managers' LIFO/FIFO policy choice. *Journal of Corporate Finance*, *7*(4), 475-492.

Guthrie, J., Petty, R., & Johanson, U. (2001). Sunrise in the knowledge economy: managing, measuring and reporting intellectual capital. *Accounting, Auditing & Accountability Journal*, *14*(4), 365-384.

Gwilliam, D., Macve, R., & Meeks, G. (2005). The costs and benefits of increased accounting regulation: a case study of Lloyd's of London. *Accounting and Business Research*, *35*(2), 129-146.

Hail, L., Leuz, C., & Wysocki, P. (2010). Global accounting convergence and the potential adoption of IFRS by the US (Part I): Conceptual underpinnings and economic analysis. *Accounting Horizons*, *24*(3), 355-394.

Hausman, A., & Johnston, W. J. (2014). The role of innovation in driving the economy: Lessons from the global financial crisis. *Journal of Business Research*, *67*(1), 2720-2726.

Hausman, J., & McFadden, D. (1984). Specification tests for the multinomial logit model. *Econometrica*, *52*(5), 1219-40.

Henning, S. L., & Shaw, W. H. (2003). Is the selection of the amortization period for goodwill a strategic choice? *Review of Quantitative Finance and Accounting*, *20*(4), 315-333.

Hensher, D. A. (1986). Sequential and full information maximum likelihood estimation of a nested logit model. *The Review of Economics and Statistics*, *68*(4), 657-667.

Hensher, D. A. (1994). Stated preference analysis of travel choices: the state of

practice. *Transportation*, *21*(2), 107-133.

Heuberger, C., & Muir, J. A. (2007). Minimal weight and colexicographically minimal integer representations. *Journal of Mathematical Cryptology*, *1*(4), 297-328.

Hodder, L. D., & Hopkins, P. E. (2014). Agency problems, accounting slack, and banks' response to proposed reporting of loan fair values. *Accounting, Organizations and Society*, *39*(2), 117-133.

Hodge, F., Hopkins, P. E., & Pratt, J. (2006). Management reporting incentives and classification credibility: The effects of reporting discretion and reputation. *Accounting, Organizations and Society*, *31*(7), 623-634.

Hogarth, R. M. (1993). Accounting for decisions and decisions for accounting. *Accounting, Organizations and Society*, *18*(5), 407-424.

Hollander, M., Wolfe, D. A., & Chicken, E. (2014). *Nonparametric statistical methods* (3rd ed.). Hoboken, New Jersey: John Wiley & Sons.

Holthausen, R. W. (1990). Accounting method choice: Opportunistic behavior, efficient contracting, and information perspectives. *Journal of Accounting and Economics*, *12*(1), 207-218.

Hope, O. K., Jin, J., & Kang, T. (2006). Empirical evidence on jurisdictions that adopt IFRS. *Journal of International Accounting Research*, *5*(2), 1-20.

Horton, J., & Serafeim, G. (2010). Market reaction to and valuation of IFRS reconciliation adjustments: first evidence from the UK. *Review of Accounting Studies*, *15*(4), 725-751.

Horton, J., Serafeim, G., & Serafeim, I. (2013). Does Mandatory IFRS Adoption Improve the Information Environment? *Contemporary Accounting Research*, *30*(1), 388-423.

Houy, N., & Tadenuma, K. (2009). Lexicographic compositions of multiple criteria for decision making. *Journal of Economic Theory*, *144*(4), 1770-1782.

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.

Hung, R. Y. Y., Lien, B. Y. H., Yang, B., Wu, C. M., & Kuo, Y. M. (2011). Impact of TQM and organizational learning on innovation performance in the high-tech industry. *International Business Review*, *20*(2), 213-225.

Ida, T., & Goto, R. (2009). Simultaneous measurement of time and risk preferences: stated preference discrete choice modeling analysis depending on smoking behavior. *International Economic Review*, *50*(4), 1169-1182.

The IFRS Foundation and the IASB. (2012). *Technical Summary, IAS 38 Intangible Assets*. Retrieved from http://www.ifrs.org/IFRSs/IFRS-technical-summaries/Documents/IAS38-English.pdf

The IFRS Foundation and the IASB. (2013). *IFRS application around the world. Jurisdictional profile: United Kingdom*. Retrieved August 15, 2014, from http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/United-Kingdom-IFRS-Profile.pdf

The IFRS Foundation and the IASB. (2014). *IFRS application around the world*. Retrieved January 5, 2015, from http://www.ifrs.org/Use-around-the-world/Pages/Jurisdiction-profiles.aspx

The Institute of Chartered Accountants in England and Wales (ICAEW). (1981). *Statement of Standard Accounting Practice No. 19: Accounting for investment properties*. Retrieved from https://www.frc.org.uk/getattachment/b99718e9-fc66-405b-8f28-81e83bb34882/SSAP-19-Accounting-for-investment-properties.aspx

The Institute of Chartered Accountants in England and Wales (ICAEW). (2012). *Library*. Retrieved November 8, 2012, from http://www.icaew.com/en

The Institute of Chartered Accountants in England and Wales (ICAEW). (2015). *The new UK GAAP*. Retrieved February 3, 2015, from http://www.icaew.com/en/technical/financial-reporting/new-uk-gaap

The International Accounting Standards Board (IASB). (2012). *A guide to the IFRS for SMEs*. Retrieved from http://www.ifrs.org/IFRS-for-SMEs/Documents/AGuidetotheIFRStoSMEs_March20

12.pdf

Ittner, C., & Larcker, D. (2002). Empirical managerial accounting research: are we just describing management consulting practice? *European Accounting Review, 11*(4), 787-794.

Jackson, S. B., Rodgers, T. C., & Tuttle, B. (2010). The effect of depreciation method choice on asset selling prices. *Accounting, Organizations and Society, 35*(8), 757-774.

Jamal, K., Bloomfield, R., Christensen, T. E., Colson, R. H., Moehrle, S., Ohlson, J., Penman, S., Stober, T., Sunder, S., & Watts, R. L. (2010). A perspective on the Canadian Accounting Standards Board exposure draft on generally accepted accounting principles for private enterprises. *Accounting Horizons, 24*(1), 129-137.

Jeanjean, T., & Stolowy, H. (2008). Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption. *Journal of Accounting and Public Policy, 27*(6), 480-494.

Jermakowicz, E. K., & Gornik-Tomaszewski, S. (2006). Implementing IFRS from the perspective of EU publicly traded companies. *Journal of International Accounting, Auditing and Taxation, 15*(2), 170-196.

Jones, S., & Hensher, D. A. (2007). Modelling corporate failure: A multinomial nested logit analysis for unordered outcomes. *The British Accounting Review, 39*(1), 89-107.

Jones, S., & Higgins, A. D. (2006). Australia's switch to International Financial Reporting Standards: A perspective from account preparers. *Accounting & Finance, 46*(4), 629-652.

Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American psychologist, 39*(4), 341.

Kane, E. J. (2004). Continuing dangers of disinformation in corporate accounting reports. *Review of Financial Economics, 13*(1), 149-164.

Kelly, J., Haider, W., & Williams, P. W. (2007). A behavioral assessment of tourism transportation options for reducing energy consumption and greenhouse

gases. *Journal of Travel Research*, *45*(3), 297-309.

Khurana, I. K., & Kim, M. S. (2003). Relative value relevance of historical cost vs. fair value: Evidence from bank holding companies. *Journal of Accounting and Public Policy*, *22*(1), 19-42.

Knoblauch, V. (2005). Continuous lexicographic preferences. *Journal of Mathematical Economics*, *41*(7), 812-825.

Kohli, R., & Jedidi, K. (2007). Representation and inference of lexicographic preference models and their variants. *Marketing Science*, *26*(3), 380-399.

KPMG. (2013). *Cutting through UK GAAP*. Retrieved from http://www.kpmg.com/UK/en/IssuesAndInsights/ArticlesPublications/Documents/PDF/Audit/cutting-through-uk-gaap.pdf

KPMG Taiwan. (2009). *國際會計準則公報第37號「準備、或有負債以及或有資產」概述兼論與我國財務會計準則公報第9號之差異(上)* [The introduction of IAS 37 and the difference between IAS 37 and ROC GAAP No. 9]. Retrieved from http://www.kpmg.com.tw/ATTACH/News/352_200906%E5%B0%88%E8%AB%962.pdf

KPMG Taiwan. (2011). *KPMG Monthly August 2011*. Retrieved March 3, 2015, from https://www.kpmg.com/TW/zh/IssuesAndInsights/Documents/Monthly/201108new.pdf

KPMG Taiwan. (2012). *實務探討：IFRS 7 金融工具揭露、IFRS 9 金融工具* [Analysis of IFRS 7 and IFRS 9] [PDF document]. Retrieved from http://www.futures.org.tw/opensoft.asp?soft_id=778&url=1

Kroes, E. P., & Sheldon, R. J. (1988). Stated preference methods: an introduction. *Journal of Transport Economics and Policy*, *22(1)*, 11-25.

Kruis, A. M., & Widener, S. K. (2014). Managerial influence in performance measurement system design: A recipe for failure? *Behavioral Research in Accounting*, *26*(2), 1-34.

Kvaal, E., & Nobes, C. (2010). International differences in IFRS policy choice: A research note. *Accounting and Business Research*, *40*(2), 173-187.

Kvaal, E., & Nobes, C. (2012). IFRS policy changes and the continuation of national patterns of IFRS practice. *European Accounting Review, 21*(2), 343-371.

Lagrost, C., Martin, D., Dubois, C., & Quazzotti, S. (2010). Intellectual property valuation: how to approach the selection of an appropriate valuation method. *Journal of Intellectual Capital, 11*(4), 481-503.

Lancsar, E., & Louviere, J. (2006). Deleting 'irrational'responses from discrete choice experiments: a case of investigating or imposing preferences? *Health Economics, 15*(8), 797-811.

Landsman, W. R. (2006). *Fair value accounting for financial instruments: some implications for bank regulation.* BIS Working Paper No. 209. Retrieved January 10, 2015, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=947569

Layton, D. F. (2000). Random coefficient models for stated preference surveys. *Journal of Environmental Economics and Management, 40*(1), 21-36.

Lehmann, C. M., & Norman, C. S. (2006). The effects of experience on complex problem representation and judgment in auditing: An experimental investigation. *Behavioral Research in Accounting, 18*(1), 65-83.

Liao, J. S. (2014). 投資性不動產採公允價值入帳觀察：一般產業 [Observation on the usage of the fair value approach for investment property: general industry]. *TEJ 信用風險評估專刊*, 17-24. Retrieved from http://www.tej.com.tw/twsite/Default.aspx

Libby, R., Bloomfield, R., & Nelson, M. W. (2002). Experimental research in financial accounting. *Accounting, Organizations and Society, 27*(8), 775-810.

Lillis, A. M. (1999). A framework for the analysis of interview data from multiple field research sites. *Accounting & Finance, 39*(1), 79-105.

Liu, C. Y. (1993). Government's role in developing a high-tech industry: the case of Taiwan's semiconductor industry. *Technovation, 13*(5), 299-309.

London Stock Exchange. (2015). Companies and Securities. Retrieved February 11, 2015, from http://www.londonstockexchange.com/statistics/companies-and-issuers/companies-a

nd-issuers.htm

Luft, J. L., & Shields, M. D. (2001). Why does fixation persist? Experimental evidence on the judgment performance effects of expensing intangibles. *The Accounting Review, 76*(4), 561-587.

Manzini, P., & Mariotti, M. (2012). Choice by lexicographic semiorders. *Theoretical Economics, 7*(1), 1-23.

March, J. G. (1987). Ambiguity and accounting: The elusive link between information and decision making. *Accounting, Organizations and Society, 12*(2), 153-168.

Matsuura, J. H. (2004). An overview of intellectual property and intangible asset valuation models. *Research Management Review, 14*(1), 114-120.

McFadden, D. L. (2005). Revealed stochastic preference: a synthesis. *Economic Theory, 26*(2), 245-264.

Meeks, G. & Meeks, J. G. (2002). *Towards a Cost-Benefit Analysis of Accounting Regulation*. London: ICAEW.

Meeks, G., & Swann, G. P. (2009). Accounting standards and the economics of standards. *Accounting and Business Research, 39*(3), 191-210.

Messier, W. F., Quick, L. A., & Vandervelde, S. D. (2014). The influence of process accountability and accounting standard type on auditor usage of a status quo heuristic. *Accounting, Organizations and Society, 39*(1), 59-74.

Miller, D. P. (1999). The market reaction to international cross-listings: evidence from Depositary Receipts. *Journal of Financial Economics, 51*(1), 103-123.

The Ministry of Economic Affairs, R.O.C.. (2014a). *立法院三讀通過商業會計法* [The Business Entity Accounting Act is passed the third reading]. Retrieved November 2, 2014, from http://www.moea.gov.tw/Mns/populace/news/News.aspx?kind=1&menu_id=40&news_id=37170

The Ministry of Economic Affairs, R.O.C.. (2014b). *預告修正「商業會計處理準則」*

修正草案 [Policy Announcement: The draft amendment of the Regulation on Business Entity Accounting Handling]. Retrieved November 3, 2014, from http://gcis.nat.gov.tw/main/publicContentAction.do?method=showPublic&pkGcisPublicContent=3810

The Ministry of Economic Affairs, R.O.C.. (2014c). *修正「商業會計處理準則」* [Policy Announcement: The latest amendment of the Regulation on Business Entity Accounting Handling]. Retrieved November 3, 2014, from http://gcis.nat.gov.tw/main/publicContentAction.do?method=showPublic&pkGcisPublicContent=3822

Mises, L. V. (1998). *Human action*. Auburn, Alabama: Ludwig von Mises Institute. Retrieved from https://mises.org/sites/default/files/Human%20Action_3.pdf

Mishan, E. J., & Quah, E. (2007). *Cost-benefit analysis* (5th ed.). New York: Routledge.

Missonier-Piera, F. (2004). Economic determinants of multiple accounting method choices in a Swiss context. *Journal of International Financial Management & Accounting*, *15*(2), 118-144.

Moe, W. W. (2006). An empirical two-stage choice model with varying decision rules applied to internet clickstream data. *Journal of Marketing Research, 43*(4), 680-692.

Moore Stephens. (2014). *UK GAAP for Jersey entities*. Retrieved from http://jersey.moorestephens.com/SE/Document.aspx?ID=8F97CCAE9498BB8AFAE680C3032F235F

Mouritsen, J. (1994). Rationality, institutions and decision making: reflections on March and Olsen's rediscovering institutions. *Accounting, Organizations and Society*, *19*(2), 193-211.

Nagakura, D., & Kobayashi, M. (2009). Testing the sequential logit model against the nested logit model. *Japanese Economic Review*, *60*(3), 345-361.

National Statistics, R.O.C.. (2012). *工商及服務業普查* [Industry, Commerce and Service Census]. Retrieved March 14, 2014, from http://www.stat.gov.tw/ct.asp?xItem=532&ctNode=542&mp=4

National Statistics, R.O.C.. (2014a). *國民所得及經濟成長統計表* [Data of National Income and Economic Growth]. Retrieved March 14, 2014, from http://www.stat.gov.tw/ct.asp?xItem=14616&CtNode=3564&mp=4

National Statistics, R.O.C.. (2014b). *國民所得及經濟成長新聞稿 2014/10/31* [News released on October 31, 2014 regarding National Income and Economic Growth]. Retrieved November 22, 2014, from http://www.stat.gov.tw/ct.asp?xItem=36633&ctNode=497&mp=4

Nelson, M. W. (2003). Behavioral evidence on the effects of principles-and rules-based standards. *Accounting Horizons, 17*(1), 91-104.

Nobes, C. (2006). The survival of international differences under IFRS: towards a research agenda. *Accounting and Business Research, 36*(3), 233-245.

Office for National Statistics. (2014a). *Release: Population estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2013*. Retrieved November 22, 2014, from http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/2013/index.html

Office for National Statistics. (2014b). *Statistical bulletin: Gross Domestic Product preliminary estimate, Q3 2014*. Retrieved November 22, 2014, from http://www.ons.gov.uk/ons/rel/gva/gross-domestic-product--preliminary-estimate/q3-2014/stb-gdp-preliminary-estimate--q3-2014.html

Office for National Statistics. (2014c). *Subtopic: GVA by Category of Output*. Retrieved November 22, 2014, from http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=GVA+by+Category+of+Output

Office for National Statistics. (2014d). *Topic: Structure of Business*. Retrieved November 22, 2014, from http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Structure+of+Businesses

Olsen, R. A. (2002). Professional investors as naturalistic decision makers: Evidence and market implications. *The Journal of Psychology and Financial Markets, 3*(3), 161-167.

Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement.* London: Pinter Publishers Ltd.

Otley, D. T., & Berry, A. J. (1994). Case study research in management accounting and control. *Management Accounting Research*, *5*(1), 45-65.

Park, G., & Park, Y. (2006). On the measurement of patent stock as knowledge indicators. *Technological Forecasting and Social Change*, *73*(7), 793-812.

Paulley, N., Balcombe, R., Mackett, R., Titheridge, H., Preston, J., Wardman, M., Shires, J., & White, P. (2006). The demand for public transport: The effects of fares, quality of service, income and car ownership. *Transport Policy*, *13*(4), 295-306.

Penman, S. H. (2007). Financial reporting quality: is fair value a plus or a minus? *Accounting and Business Research*, *37*(sup1), 33-44.

Peterson, K. (2012). Accounting complexity, misreporting, and the consequences of misreporting. *Review of Accounting Studies*, *17*(1), 72-95.

Piotroski, J. D., & Srinivasan, S. (2008). Regulation and bonding: The Sarbanes-Oxley act and the flow of international listings. *Journal of Accounting Research*, *46*(2), 383-425.

PwC. (2013a) *A Comparison of Current UK GAAP, New UK GAAP (FRS102) and IFRS.* Retrieved February 12, 2015, from https://inform.pwc.com/inform2/show?action=informContent&id=1308101204155361

PwC. (2013b). *A Global Guide to Fair Value Measurements*. Retrieved from http://www.pwc.com/en_US/us/cfodirect/assets/pdf/accounting-guides/pwc_fair_value_2013.pdf

PwC. (2013c). *UK GAAP*. Retrieved October 2, 2013, from http://www.pwc.co.uk/audit-assurance/uk-gaap/index.jhtml

PwC. (2014a). *IFRS Adoption by Country*. Retrieved November 16, 2014, from http://www.pwc.com/us/en/issues/ifrs-reporting/publications/ifrs-status-country.jhtml

PwC. (2014b). *Reduced Disclosure Framework under IFRS (FRS101)*. Retrieved

December 3, 2014, from https://inform.pwc.com/inform2/show?action=informContent&id=1248252609118589

PwC. (2015). *Investment Property (IAS 40)*. Retrieved February 17, 2015, from https://inform.pwc.com/inform2/show?action=informContent&id=0949085303162321#summary_ias40

PwC Taiwan. (2008a). *未來的會計語言* [The future accounting language: IFRS]. Retrieved from http://www.twse.com.tw/ch/listed/download/IFRS000A01.pdf

PwC Taiwan. (2008b). *全面採用 IFRS 對企業的衝擊與影響* [The impact of full IFRS adoption on businesses]. Retrieved from http://www.twse.com.tw/ch/listed/download/IFRS000C05.pdf

PwC Taiwan. (2008c). *轉換 IFRS 的常見問答* [Transition to IFRS: FAQs]. Retrieved from http://www.twse.com.tw/ch/listed/download/IFRS000A02.pdf

PwC Taiwan. (2012). *如何看懂國際會計準則(IFRSs)財務報表做出正確之投資決策* [How to read IFRS financial reports to make correct investment decisions] [PDF document]. Retrieved from http://www.twse.com.tw/ch/listed/IFRS/doc/learning/%7B88B44DD4-0040-5F82-D7D1-24EA07B70B65%7D.pdf

Raghubir, P. (2006). An information processing review of the subjective value of money and prices. *Journal of Business Research*, *59*(10), 1053-1062.

Reid, G. C. (1993). *Small business enterprise: an economic analysis*. London: Routledge.

Reid, G. C., & Smith, J. A. (2007a). *Practitioner views on financial reporting for smaller entities.* Centre for Research into Industry, Enterprise, Finance and the Firm, University of St Andrews, Discussion Paper. Retrieved January 12, 2015, from http://strathprints.strath.ac.uk/2846/1/strathprints002846.pdf

Reid, G. C., & Smith, J. A. (2007b). Reporting in small firms. *Financial Management*, *April*, 31-33.

Richter, M. K. (1966). Revealed preference theory. *Econometrica*, *34*(3), 635-645.

Riley, T. J., Semin, G. R., & Yen, A. C. (2013). Patterns of language use in accounting narratives and their impact on investment-related judgments and decisions. *Behavioral Research in Accounting*, *26*(1), 59-84.

Sahut, J. M., Boulerne, S., & Teulon, F. (2011). Do IFRS provide better information about intangibles in Europe? *Review of Accounting and Finance*, *10*(3), 267-290.

Samuelson, P. A. (1948). Consumption theory in terms of revealed preference. *Economica*, *15*(60), 243-253.

Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, *1*(1), 7-59.

Saudagaran, S. M., & Biddle, G. C. (1995). Foreign listing location: A study of MNCs and stock exchanges in eight countries. *Journal of International Business Studies*, *26*(2), 319-341.

Scapens, R. W. (1990). Researching management accounting practice: the role of case study methods. *The British Accounting Review*, *22*(3), 259-281.

Scapens, R. W. (1994). Never mind the gap: towards an institutional perspective on management accounting practice. *Management Accounting Research*, *5*(3), 301-321.

Schiebel, A. (2008). *Is there a solid empirical foundation for the IASB's Draft IFRS for SMEs?* Retrieved August 27, 2014, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=994684

Schipper, K. (2005). The introduction of International Accounting Standards in Europe: Implications for international convergence. *European Accounting Review*, *14*(1), 101-126.

Schipper, K. (2010). How can we measure the costs and benefits of changes in financial reporting standards? *Accounting and Business Research*, *40*(3), 309-327.

Schlapfer, F., Schmitt, M., & Roschewitz, A. (2008). Competitive politics, simplified heuristics, and preferences for public goods. *Ecological Economics*, *65*(3), 574-589.

Schleicher, T., Tahoun, A., & Walker, M. (2010). IFRS adoption in Europe and investment-cash flow sensitivity: Outsider versus insider economies. *The*

International Journal of Accounting, *45*(2), 143-168.

Schwab, B., & Lusztig, P. (1969). A comparative analysis of the net present value and the benefit-cost ratio as measures of the economic desirability of investments. *Journal of Finance*, 24(3), 507-516.

Securities and Futures Bureau, Financial Supervisory Commission, R.O.C.. (2013). *修正「證券發行人財務報告編製準則」部分條文* [Amendment of the Regulations Governing the Preparation of Financial Reports by Securities Issuers]. Retrieved March 8, 2015, from http://www.sfb.gov.tw/ch/home.jsp?id=88&parentpath=0,3&mcustomize=lawnews_view.jsp&dataserno=201312300002&toolsflag=Y

Securities and Futures Bureau, Financial Supervisory Commission, R.O.C.. (2014a). *國際財務報導準則(IFRSs)下載* [IFRS download]. Retrieved December 29, 2014, from http://www.sfb.gov.tw/ch/home.jsp?id=552&parentpath=0,2,528

Securities and Futures Bureau, Financial Supervisory Commission, R.O.C., (2014b). *證券發行人財務報告編製準則* [Regulations Governing the Preparation of Financial Reports by Securities Issuers]. Retrieved March 8, 2015, from http://www.selaw.com.tw/Scripts/Query4B.asp?FullDoc=%A9%D2%A6%B3%B1%F8%A4%E5&Lcode=G0100205

Sethi-Iyengar, S., Huberman, G., & Jiang, G. (2004). *How Much Choice is Too Much? Contributions to 401(k) Retirement Plans. In Pension Design and Structure: New Lessons from Behavioral Finance.* Oxford University Press. Retrieved from http://www.oxfordscholarship.com/view/10.1093/0199273391.001.0001/acprof-9780199273393-chapter-5

Shen, J. (2005). *A review of stated choice method* (No. 05-27). Osaka University, Discussion Paper. Retrieved January 19, 2015, from http://econpapers.repec.org/paper/oskwpaper/0527.htm

Shu, P. G., Chiang, S. J., & Lin, H. Y. (2012). Earnings management, managerial optimism, and IPO valuation. *Journal of Behavioral Finance*, *13*(2), 147-161.

Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports: An international comparison. *The Accounting Review*, *84*(3), 937-967.

Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *The American Economic Review, 49*(3), 253-283.

Simon, H. A. (1979). Rational decision making in business organizations. *The American Economic Review, 69*(4), 493-513.

Singleton-Green, B. (2015). *The effects of mandatory IFRS adoption in the EU: A review of empirical research.* Information for Better Markets, Forthcoming. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2515391

Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C.. (2010). *我國為何要採用 IFRS* [Why does Taiwan adopt IFRS]? Retrieved September 20, 2013, from https://friap.moeasmea.gov.tw/knowledge_detail.php?gid=6&nid=128

Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C.. (2012). *未來我國企業是否不管有無公開發行均須採用 IFRS* [Will all companies have to adopt IFRS in the future, regardless of whether they are public or private]? Retrieved September 20, 2013, from https://friap.moeasmea.gov.tw/knowledge_detail.php?gid=6&nid=166

Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C.. (2013). *我國採用國際財務報導準則(IFRSs)是全面原封不動直接採用還是有配合國內狀況做調整* [Is there any adjustment made on the IFRS adopted in Taiwan]? Retrieved February 20, 2015, from https://friap.moeasmea.gov.tw/knowledge_detail.php?gid=6&nid=440

Small and Medium Enterprise Administration, Ministry of Economic Affairs, R.O.C.. (2015). *IFRSs 下無形資產之會計處理解析* [Analysis of the treatment of intangibles under IFRSs]. Retrieved March 8, 2015, from https://friap.moeasmea.gov.tw/knowledge_detail.php?gid=9&nid=748

Smith, J.A. & Reid, G.C. (2008). *Financial Reporting in the Small Firm: Is the FRSSE a Help or a Hindrance* (RES-000-22-1080-A)? Full Research Report ESRC End of Award Report. Swindon: ESRC.

Soderstrom, N. S., & Sun, K. J. (2007). IFRS adoption and accounting quality: a review. *European Accounting Review, 16*(4), 675-702.

Stein, J. C. (2002). Information production and capital allocation: Decentralized versus hierarchical firms. *The Journal of Finance*, *57*(5), 1891-1921.

Sunder, S. (2010). Adverse effects of uniform written reporting standards on accounting practice, education, and research. *Journal of Accounting and Public Policy*, *29*(2), 99-114.

Tabuchi, T. (1994). Two-stage two-dimensional spatial competition between two firms. *Regional Science and Urban Economics*, *24*(2), 207-227.

The Taiwan Stock Exchange Corporation (TWSE). (2011a). 2011 Q&A. Retrieved September 28, 2013, from http://www.twse.com.tw/ch/listed/IFRS/newsQa.php

The Taiwan Stock Exchange Corporation (TWSE). (2011b). *ROC GAAP 與 IFRSs 差異* [The differences between ROC GAAP and IFRSs]. Retrieved October 2, 2013, from http://www.twse.com.tw/ch/listed/IFRS/aboutGAAP.php

The Taiwan Stock Exchange Corporation (TWSE). (2012a). *IFRS 我國推動架構* [IFRS adoption framework in Taiwan]. Retrieved October 5, 2012, from http://www.twse.com.tw/ch/listed/IFRS/aboutIFRS.php

The Taiwan Stock Exchange Corporation (TWSE). (2012b). 2012 Q&A. Retrieved September 28, 2013, from http://www.twse.com.tw/ch/listed/IFRS/newsQa.php

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches* (Applied Social Research Methods Series, Vol. 46). Thousand Oaks, CA: Sage.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative techniques in the social and behavioral sciences*. Thousand Oaks, CA: Sage.

Tellis, G. J. (1988). Advertising exposure, loyalty, and brand purchase: A two-stage model of choice. *Journal of Marketing Research*, *25*(2), 134-144.

Thrane, S. (2007). The complexity of management accounting change: Bifurcation and oscillation in schizophrenic inter-organisational systems. *Management Accounting Research*, *18*(2), 248-272.

Trotman, K. T., Tan, H. C., & Ang, N. (2011). Fifty-year overview of judgment and decision-making research in accounting. *Accounting & Finance*, *51*(1), 278-360.

Tsoligkas, F., & Tsalavoutas, I. (2011). Value relevance of R&D in the UK after IFRS mandatory implementation. *Applied Financial Economics*, *21*(13), 957-967.

Tu, Y., & Goldfinch, J. (1996). A two-stage housing choice forecasting model. *Urban Studies*, *33*(3), 517-537.

Tyrrall, D., Woodward, D., & Rakhimbekova, A. (2007). The relevance of International Financial Reporting Standards to a developing country: Evidence from Kazakhstan. *The International Journal of Accounting*, *42*(1), 82-110.

Uecker, W. C., & Kinney, W. R. (1977). Judgmental evaluation of sample results: A study of the type and severity of errors made by practicing CPAs. *Accounting, Organizations and Society*, *2*(3), 269-275.

Um, S., & Crompton, J. L. (1990). Attitude determinants in tourism destination choice. *Annals of Tourism Research*, *17*(3), 432-448.

Van Cuilenburg, J., & Slaa, P. (1995). Competition and innovation in telecommunications: An empirical analysis of innovative telecommunications in the public interest. *Telecommunications Policy*, *19*(8), 647-663.

Van der Meulen, S., Gaeremynck, A., & Willekens, M. (2007). Attribute differences between US GAAP and IFRS earnings: An exploratory study. *The International Journal of Accounting*, *42*(2), 123-142.

Van Ophem, H., & Schram, A. (1997). Sequential and multinomial logit: A nested model. *Empirical Economics*, *22*(1), 131-152.

Varian, H.R. (1984). *Microeconomic analysis* (2nd ed.). New York: W. W. Norton & Company.

Varian, H. R., & Repcheck, J. (2010). *Intermediate microeconomics: a modern approach* (8th ed.). New York, NY: WW Norton & Company.

Wang, W. Y., & Chang, C. (2005). Intellectual capital and performance in causal models: Evidence from the information technology industry in Taiwan. *Journal of*

Intellectual Capital, *6*(2), 222-236.

Watts, R. L. (1992). Accounting choice theory and market-based research in accounting. *The British Accounting Review, 24*(3), 235-267.

Watts, R. L., & Zimmerman, J. L. (1978). Towards a positive theory of the determination of accounting standards. *The Accounting Review, 53*(1), 112-134.

Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: a ten year perspective. *The Accounting Review*, *65*(1), 131-156.

Welsh, J. A., & White, J. F. (1981). A small business is not a little big business. *Harvard Business review, 59*(4), 18-27.

Wengraf, T. (2001). *Qualitative research interviewing: Biographic narrative and semi-structured methods*. London: SAGE Publications.

Whitley, E., & Ball, J. (2002). Statistics review 6: Nonparametric methods. *Critical Care*, *6*(6), 509-513.

Wilcoxon, F. (1945). Individual comparisons by ranking methods. *Biometrics Bulletin*, *1*(6), 80-83.

Yazdifar, H., Zaman, M., Tsamenyi, M., & Askarany, D. (2008). Management accounting change in a subsidiary organisation. *Critical Perspectives on Accounting*, *19*(3), 404-430.

Zenger, T. R., & Hesterly, W. S. (1997). The disaggregation of corporations: Selective intervention, high-powered incentives, and molecular units. *Organization Science*, *8*(3), 209-222.

Appendix A: Questionnaire with Pre-Letter (for UK Companies)

Participant Information

Dear Madam/Sir,

We are sponsored by the Carnegie Trust for the Universities of Scotland to conduct research on "Applying the Stated Preference Approach to the Study of Financial Reports." This project explores companies' choices of financial reporting modes and the perceived adoption costs and benefits. In its analysis and interpretation of empirical evidence on companies' choice behaviour, it aims to enhance our understanding of financial reporting choices. Our project takes into account recent policy changes in the UK, and we expect it to provide crucial policy insights which will benefit companies, investors, and standard-setters alike.

It would be much appreciated if you, or a suitable person to whom you could delegate the task, could complete the attached questionnaire and return it to Ms. Yu-Lin Hsu (see below), through email or post, within a week of this email. Please do not hesitate to contact us, if you have any queries about this questionnaire or this study.

Thanking you in advance.

Yours faithfully,

Dr. Julia A. Smith
Department of Accounting and Finance, University of Strathclyde
Email: julia.smith@strath.ac.uk

Professor Gavin C. Reid
University of St Andrews, University of Strathclyde, University of the West of Scotland
Email: gcr@st-andrews.ac.uk

Ms. Yu-Lin Hsu
Department of Accounting and Finance, University of Strathclyde
Email: yulin.hsu@strath.ac.uk
Address: Department of Accounting and Finance, Strathclyde Business School, Curran Building, 100 Cathedral Street, Glasgow G4 0LN, UK

Consent Form

Further Information for Participants:

1. All responses will be treated anonymously.
2. The data will be held confidentially, and used only for academic research. The outcome of this study will be presented in reports submitted to the funding body, and the subsequent research output will be embodied anonymously in academic journal papers and a doctoral dissertation.
3. It takes about 10 minutes to complete this survey.
4. This survey is voluntary. If you consent to complete it, please do so as fully as possible, and return it to us. We appreciate your kind response.

Please sign/type your consent below:

I agree to complete this survey, subject to the above conditions.

NAME _____ DATE _____

INSTITUTION

_____

Guidance for Questionnaire

General Guidance for Questionnaire:

1. Please provide the most recent data available.
2. For values use GBP(£) or specify the currency you use.
3. Please complete the questionnaire based on your best judgement. Please provide your best estimate.

Please return completed questionnaire to: yulin.hsu@strath.ac.uk

BEGINNING OF QUESTIONNAIRE

Section 1. Basic Company Information

Numbers recorded do not have to be exact. If you do not know the exact number, provide your best estimate.

1.1 What is your firm size?

Employees _____ Annual Turnover (£) _____

Balance sheet total (£) _____ Total assets (£) _____

1.2 When was your firm founded? _____

1.3 What is the geographical distribution of sales you make, and costs you incur?

	Local	UK	Europe	World
Sales (%)	_____	_____	_____	_____
Costs (%)	_____	_____	_____	_____

1.4 What is your annual growth rate of sales? _____

1.5 What is your annual R&D expenditure? (£) _____

1.6 What is your P/E ratio? _____

1.7 What is your industrial or service sector? (please choose from the list of SIC Codes on next page) _____

1.8 What is ownership of your company? (%)

Insider _____ (e.g. management) Institutional _____ (e.g. mutual funds) Other _____

1.9 What is your leverage?

Total Asset/Equity _____ Liability/Equity _____

1.10 How well do these describe features of your organization structure? (please circle)

Your use of teams to make decisions is:	Zero	Low	Medium	High	Extreme
The authority you give to individuals to make decisions is:	Zero	Low	Medium	High	Extreme
Your use of hierarchy for salaries is:	Negligible	Low	Medium	High	Extreme
Your use of hierarchy in organizational structure is:	Negligible	Low	Medium	High	Extreme

SIC Codes

SIC code	Sectors
01-09	Forestry, Fishing and Mining
10-30	Heavy Manufacturing
31-44	Light Manufacturing and Construction
45-58	Wholesale and Retail Trades
59-83	Professional and Financial Services
84-99	Public, Private and Social Services

Section 2. Financial Reporting Regimes

2.1. Current Adoption

2.1.1 Current choice of financial reporting regime

2.1.1.1 What types of financial reports do you prepare? (please circle *all* items applicable to you)

A member of a group: consolidated accounts | parent accounts | subsidiary account

Not a member of a group: individual accounts

2.1.1.2 What are the financial reporting regimes you could choose? (please circle *all* regimes available to you)

IFRS | UK GAAP | FRSSE | Other _____

Please further explain available regimes for different accounts, if your available regimes are different for different accounts (consolidated accounts, parent accounts, subsidiary accounts) _____

_____

2.1.1.3 What is your current financial reporting regime? (please circle)

IFRS | UK GAAP | FRSSE | Other _____

When did you adopt it? _____

Please further explain adopted regimes for different accounts, if you adopt different regimes for different accounts (consolidated accounts, parent accounts, subsidiary accounts) _____

_____

2.1.2 At the point of adoption, what were your perceived adoption **costs**? For regimes which you could have chosen but you did not, what were your perceived adoption costs at that time? (please circle)

IFRS	N/A	Zero	Low	Medium	High	Extreme
Current UK GAAP	N/A	Zero	Low	Medium	High	Extreme
FRSSE	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the regime is not available to you]

2.1.3 At the point of adoption, what were your perceived **benefits**? For regimes which you could have chosen but you did not, what were your perceived adoption benefits at that time? (please circle)

IFRS	N/A	Zero	Low	Medium	High	Extreme
Current UK GAAP	N/A	Zero	Low	Medium	High	Extreme
FRSSE	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the regime is not available to you]

2.2. Expected Adoption

2.2.1 Expected choice of financial reporting regime

2.2.1.1 Is your firm entitled to adopt new UK GAAP from 2015? (please circle)

No (Go to Section 3) | Yes

2.2.1.2 What are the chances that you will adopt the following from 2015? (please circle)

IFRS	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP -FRS 101	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP -FRS 102	N/A	Zero	Low	Medium	High	Extreme
FRSSE	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the regime is not available to you from 2015]

Please further explain expectedly adopted regimes for different accounts, if you may adopt different regimes for different accounts (consolidated accounts, parent accounts, subsidiary accounts) _____

_____

_____

2.2.2 What is your expected **cost** of adopting the following financial reporting regime from 2015? (please circle)

IFRS	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP -FRS 101	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP -FRS 102	N/A	Zero	Low	Medium	High	Extreme
FRSSE	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the regime is not available to you from 2015]

2.2.3 What is your expected **benefit** of adopting the following financial reporting regimes from 2015? (please circle)

IFRS	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP -FRS 101	N/A	Zero	Low	Medium	High	Extreme
New UK GAAP -FRS 102	N/A	Zero	Low	Medium	High	Extreme
FRSSE	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the regime is not available to you from 2015]

Section 3. Financial Reporting Techniques

3.1. Choices of financial reporting techniques

3.1.1 Intangibles

3.1.1.1 Which method(s) could you choose for valuing **intangibles**? (please circle)

Cost Approach	Market Approach
Income Approach	Other _____

3.1.1.2 Of method(s) circled in 3.1.1.1, which do you actually use for valuing **intangibles** and what is its/their importance? Circle those boxes that apply and then rank them in order of importance, putting 1, 2, etc. in the relevant boxes; where 1 is the most important.

☐ Cost Approach ☐ Market Approach

☐ Income Approach ☐ Other _____

3.1.2 Development costs

3.1.2.1 Which method(s) could you choose for treating **development costs**? (please circle)

Recognise them as expenses | Recognise them as assets

Recognise them as other (please specify) _____

3.1.2.2 Of method(s) circled in 3.1.2.1, which do you actually use for treating **development costs** and what is its/their importance? Circle those boxes that apply and then rank them in order of importance, putting 1, 2, etc. in the relevant boxes; where 1 is the most important.

☐ Recognise them as expenses ☐ Recognise them as assets

☐ Recognise them as other _____

3.1.3 Investments

3.1.3.1 Which method(s) could you choose for valuing your **investments**? (please circle)

Market Value | Cost Approach

Fair Value | Other _____

3.1.3.2 Of method(s) circled in 3.1.3.1, which do you actually use for valuing your **investments** and what is its/their importance? Circle those boxes that apply and then rank them in order of importance, putting 1, 2, etc. in the relevant boxes; where 1 is the most important.

☐ Market Value ☐ Cost Approach

☐ Fair Value ☐ Other _____

3.2. Costs and benefits of using financial reporting techniques

3.2.1 What are your perceived **costs** of using the following financial reporting techniques? (please circle)

3.2.1.1 Costs of using techniques for valuing **intangibles**

Cost Approach	N/A	Zero	Low	Medium	High	Extreme
Income Approach	N/A	Zero	Low	Medium	High	Extreme
Market Approach	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the technique is not available to you]

3.2.1.2 Costs of using techniques for treating **development costs**

Recognise them as expenses	N/A	Zero	Low	Medium	High	Extreme
Recognise them as assets	N/A	Zero	Low	Medium	High	Extreme
Recognise them as other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the technique is not available to you]

3.2.1.3 Costs of using techniques for valuing **investments**

Market Value	N/A	Zero	Low	Medium	High	Extreme
Fair Value	N/A	Zero	Low	Medium	High	Extreme
Cost Approach	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the technique is not available to you]

3.2.2 What are your perceived **benefits** of using the following financial reporting techniques? (please circle)

3.2.2.1 Benefits of using techniques for valuing **intangibles**

Cost Approach	N/A	Zero	Low	Medium	High	Extreme
Income Approach	N/A	Zero	Low	Medium	High	Extreme
Market Approach	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the technique is not available to you]

3.2.2.2 Benefits of using techniques for treating **development costs**

Recognise them as expenses	N/A	Zero	Low	Medium	High	Extreme
Recognise them as assets	N/A	Zero	Low	Medium	High	Extreme
Recognise them as other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the technique is not available to you]

3.2.2.3 Benefits of using techniques for valuing **investments**

Market Value	N/A	Zero	Low	Medium	High	Extreme
Fair Value	N/A	Zero	Low	Medium	High	Extreme
Cost Approach	N/A	Zero	Low	Medium	High	Extreme
Other_____	N/A	Zero	Low	Medium	High	Extreme

[(N/A) denotes not applicable; choose N/A if the technique is not available to you]

3.3. Importance of financial reporting techniques

3.3.1 Please specify **the three most important** aspects of your financial reporting techniques. Circle these three boxes and then rank them in order putting 1, 2, or 3 in the relevant boxes; where 1 is the most important.

- ☐ Format of Cash Flow Statements
- ☐ Treatment of Financial Instruments
- ☐ Treatment of Liability
- ☐ Treatment of Taxes
- ☐ Treatment of Borrowing Costs
- ☐ Treatment of Tangible Assets
- ☐ Treatment of Intangible Properties
- ☐ Business Combination
- ☐ Pension Plan
- ☐ Treatment of Development Costs
- ☐ Valuation of Investments
- ☐ Recognition of Revenues
- ☐ Treatment of Leases
- ☐ Treatment of Contingency
- ☐ Others _____

3.3.2 Please specify **the three least important** aspects of your financial reporting techniques. Circle these three boxes and then rank them in order putting 1, 2, or 3 in the relevant boxes; where 1 is the least important.

- ☐ Format of Cash Flow Statements
- ☐ Treatment of Financial Instruments
- ☐ Treatment of Liability
- ☐ Treatment of Taxes
- ☐ Treatment of Borrowing Costs
- ☐ Treatment of Tangible Assets
- ☐ Treatment of Intangible Properties
- ☐ Business Combination
- ☐ Pension Plan
- ☐ Treatment of Development Costs
- ☐ Valuation of Investments
- ☐ Recognition of Revenues
- ☐ Treatment of Leases
- ☐ Treatment of Contingency
- ☐ Others _____

Section 4. Financial Reporting Regimes and Financial Reporting Techniques

Financial reporting <u>regime</u> refers to an entire system of financial reporting regulation such as IFRS. Once you choose a financial reporting regime, you have to obey all the regulations under this system.

Financial reporting <u>technique</u> refers to a method to treat a specific aspect in financial reports. For instance, the cost approach and the market approach are financial reporting techniques for valuing intangibles.

4.1 Which of the following are true for how you determine your financial reporting regimes and techniques? (please circle)

(a) I compare and contrast the choices of financial reporting techniques available under each regime. Then, I determine the financial reporting regime.

Never | Sometimes | Often | Very Often | Always

(b) I choose the financial reporting regime directly. Then, I determine the financial reporting techniques under this regime.

Never | Sometimes | Often | Very Often | Always

(c) None of the above. What I do is (please specify) _____

_____

Never | Sometimes | Often | Very Often | Always

4.2 How important to your choice of financial reporting **<u>technique</u>** is your choice of financial reporting **<u>regime</u>**? (please circle)

Is the importance? Negligible | Low | Medium | High | Extreme

4.3 How important to your choice of financial reporting **<u>regime</u>** is your choice of financial reporting **<u>technique</u>**? (please circle)

Is the importance? Negligible | Low | Medium | High | Extreme

END OF QUESTIONNAIRE

Please return completed questionnaire to: yulin.hsu@strath.ac.uk

Appendix B: Pre-Letter for Semi-Structured Interview (for UK Companies Contacted Before)

Dear <Madam/Sir>,

As you may recall, we contacted you by email questionnaire last year, about our research into choices of financial reporting regimes and techniques. Thank you very much for participating: your responses were of great value to our research. We are now approaching you to see if you would be willing to participate in our follow-up, which is by face to face interview, exploring broader considerations behind your choices of regimes and techniques. One or more of our research team (see below) would visit you at your place of work, and conduct an interview within an hour, under terms of strict confidentiality. We are pleased to say that the interest in our earlier work was such that the Carnegie Trust has sponsored our further work on this topic.

From our analysis of email questionnaires, we captured how financial reporting regimes and techniques were chosen. Cost-benefit considerations were found to have a statistically significant bearing on choices. However, standard-setters continue to change the regulations of financial reporting. To sustain their position in this competitive environment, firms need to respond quickly and accurately to such changes. The complexity of choice has increased, but our understanding of how the rationale behind decisions has adapted is still limited.

Hence, we aim to obtain a deeper understanding of how firms make choices, focusing more on their rationale, than on their decisions per se. Among the matters we will consider are the potential impact of crucial policy changes expected in the UK, including IFRS and New UK GAAP, which will be enforced from 2015.

Our interview agenda considers: (a) the rationale underlying choices of financial reporting regimes and techniques; and (b) the inter-relations between these choices. Our previous experience is that our interviews, because of their structured nature, often stimulate, by this very process, useful new insights within the firms we visit.

We are happy to make the results of our work available to you, in a user-friendly, non-technical form. We do hope you will agree to participate in this research, and that we can arrange an interview with you. If so, please contact us on <yulin.hsu@strath.ac.uk> to discuss possible times and dates. Please do not hesitate to ask if you have any queries about this project.

Yours sincerely,

Dr Julia A Smith, Prof Gavin C Reid, Ms Yu-Lin Hsu
Department of Accounting and Finance, Strathclyde Business School

Appendix C: Pre-Letter for Semi-Structured Interview (for UK Companies Contacted for the First Time)

Dear <Madam/Sir>,

We are approaching you to see if you would be willing to participate in our research, which uses a face to face interview to explore the process by which your firm makes choices over financial reporting regimes and supporting techniques. One or more of our research team (see below) would visit you at your place of work, and conduct an interview within an hour, under terms of strict confidentiality. We are privileged to have the Carnegie Trust sponsoring our research work on this topic.

From our earlier research on financial reporting regimes and techniques, we found that cost-benefit considerations have a statistically significant bearing on firms' choices. However, standard-setters continue to change the regulations of financial reporting. To sustain their position in this competitive environment, firms need to respond quickly and accurately to such changes. The complexity of choice has increased, but our understanding of how the rationale behind decisions has adapted is still limited.

Hence, we now seek a deeper understanding of how each firm makes a choice, focusing more on its rationale, through the interview. Among the matters we will consider are the potential impact of crucial policy changes expected in the UK, including IFRS and New UK GAAP, which will be enforced from 2015. We expect this research to provide crucial policy insights which will benefit companies, investors, and standard-setters alike.

Our interview agenda considers: (a) the rationale underlying choices of financial reporting regimes and techniques; and (b) the inter-relations between these choices. Our previous experience is that our interviews, because of their structured nature, often stimulate, by this very process, useful new insights within the firms we visit.

We are happy to make the results of our work available to you, in a user-friendly, non-technical form. We do hope you will agree to participate in this research, and that we can arrange an interview with you. If so, please contact us on <yulin.hsu@strath.ac.uk> to discuss possible times and dates. Please do not hesitate to ask if you have any queries about this project.

Yours sincerely,

Dr Julia A Smith, Prof Gavin C Reid, Ms Yu-Lin Hsu
Department of Accounting and Finance, Strathclyde Business School

Appendix D: Follow-up Thank-You Letter for Semi-Structure Interview (for UK Companies)

Applying the Stated Preference Approach
to the Study of Financial Reports

Name of Interviewer: _____

Name of Respondent / Company: _____

Date of Interview: _____Time interview to start _____

Dear Madam/Sir,

Thank you for agreeing to this interview, as above. Our project explores companies' accounting choices. It aims to promote the wider understanding of choices of financial reporting standards. It should benefit companies, investors and financial reporting standards setters alike. In today's interview, your views will be explored under three headings: Choice of Financial Reporting Regimes, Choice of Financial Reporting Techniques, and Relation between the Regime Choice and the Technique Choice (see attached).

This survey is voluntary. All responses will be treated anonymously. The data will be held confidentially, and will used only for academic research. The outcome of this study will be presented in reports submitted to the funding body, and the subsequent research output will be embodied anonymously in academic journal papers and a doctoral dissertation. We will provide you with a brief, non-technical account of our general findings. We look forward to seeing you soon.

Yours sincerely,

Dr. Julia A. Smith (Email: julia.smith@strath.ac.uk)
Department of Accounting and Finance, University of Strathclyde

Professor Gavin C. Reid (Email: gcr@st-andrews.ac.uk)
University of St Andrews, University of Strathclyde, University of the West of Scotland

Ms. Yu-Lin Hsu (Email: yulin.hsu@strath.ac.uk)
Department of Accounting and Finance, University of Strathclyde

Please sign your consent below:
I agree to participate in this project.
Signature:_____ Date:_____

Agenda Outline

1. Choice of Financial Reporting Regimes
   1.1 Choices available and the regime chosen
   1.2 Key factors in choosing
   1.3 Weighing costs/benefits in choosing
   1.4 Influence of choice of technique on regime choice
   1.5 Regime choices over different accounts
   1.6 Impact of emerging policy on choice

2. Choice of Financial Reporting Techniques
   2.1 Valuing intangibles
   2.2 Treating development costs
   2.3 Valuing investments
   2.4 Importance of techniques to all types of financial reports

3. Relation between Choices, and their Rationale
   3.1 Relation between choices over regimes and techniques
   3.2 Staging and the decision-making process
   3.3 Reasoning behind the choosing process
   3.4 Characteristics of the decision-making process

Appendix E: Instrument of Semi-Structure Interview (for UK Companies)

1. Choice of Financial Reporting Regimes 1.1 Choices available and the regime chosen Probe on: Do you prepare financial reports for consolidated accounts, parent accounts and subsidiary accounts? What regime choices are available (e.g. IFRS, UK GAAP) (for all these accounts)? What influences the choices available (e.g. regulation/firm size/listing)? Which regime(s) do you actually choose (for each of these accounts)?
Notes:
1.1 Summary:

1.2 Key factors in choosing

Probe on:

What are the key factors in choosing?

How do you make your decision?

Why are these factors important?

How do considerations differ for consolidated vs. individual accounts, and why?

Notes:

1.2 Summary:

1.3 Weighing costs/benefits in choosing

Probe on:

In what sense do you weigh costs against benefits when choosing regimes?

To the extent you do so, how are costs and benefits weighed (e.g. by a metric, subjectively, or some other method)?

Notes:

1.3 Summary:

1.4 Influence of choice of technique on regime choice

Probe on:

Do you consider what techniques are available (within various regimes) when making a regime choice?

If so, how does the choice of technique influence your regime choice?

Notes:

1.4 Summary:

1.5 Regime choices over different accounts

e.g. consolidated accounts, individual accounts (parent and subsidiary)

Probe on:

Do you adopt different regimes for different accounts, and if so why?

What is the relation between the different choices made on accounts and regimes?

What impact does compulsory adoption for consolidated accounts have on your regime choice for individual accounts?

Notes:

1.5 Summary:

1.6 Impact of emerging policy on choice

e.g. after new regimes introduced from 2015

Probe on:

What financial reporting choices will become available to you in the future?

Do these differ from what are available to you at the moment?

If so, in what sense will they differ?

If you expect to maintain the current regime, why is this so (e.g. regulation, previous adoption experience)

If you expect to change your regime, why is this so, and in what accounts will this be true?

If the latter, what role do the likes of the following play: regulation changes, your firm's new targets, greater benefit/cost, etc.?

How do you evaluate and decide upon regime change or regime status quo?

What are the key factors driving regime change?

Notes:

1.6 Summary:

2. Choice of Financial Reporting Techniques

2.1 Valuing intangibles

Probe on:

What choices of technique are available to you for valuing intangibles (e.g. cost, market, income approach) and what technique(s) have you chosen?

If you had *no choice*: why is this so (e.g. regulation) and what is its impact (e.g. on technique chosen, and in terms of costs and benefits)?

If you *had choices*: what were the key factors in choosing; and how did you weigh the costs and benefits in choosing?

What is the influence of regime choice on the technique you adopt and use for valuing intangibles?

Notes:

2.1 Summary:

2.2 Treating development costs

Probe on:

What choices of technique are available to you in treating development costs (e.g. recognizing them as expenses/assets) and what technique(s) have you chosen?

If you had *no choice*: why is this so (e.g. regulation) and what is its impact (e.g. on technique chosen, and in terms of costs and benefits)?

If you *had choices*: what were the key factors in choosing; and how did you weigh the costs and benefits in choosing?

What is the influence of regime choice on the technique you adopt and use for treating development costs?

Notes:

2.2 Summary:

2.3 Valuing investments

Probe on:

What choices of technique are available to you for valuing investments (e.g. market value, cost, fair value) and what technique(s) have you chosen?

If you had *no choice*: why is this so (e.g. regulation) and what is its impact (e.g. on technique chosen, and in terms of costs and benefits)?

If you *had choices*: what were the key factors in choosing; and how did you weigh the costs and benefits in choosing?

What is the influence of regime choice on the technique you adopt and use for valuing investments?

Notes:

2.3 Summary:

2.4 Importance of techniques to all types of financial reports

Probe on:

What are the most important techniques/aspects (across all types of financial reports: consolidated, parent , subsidiary)

Why are these techniques/aspects so important?

What roles in financial reporting choices do they play?

How do they influence the quality of decision-making (e.g. speed, precision, compliance, transparency, salience)?

Notes:

2.4 Summary:

3. Relation between Choices, and Their Rationale

3.1 Relation between choices over regimes and techniques

Probe on:

Do the two choices (viz. regime, technique) influence each other, and if so, how?

How important is the regime choice to the technique choice?

How important is the technique choice to the regime choice?

Are the regime and technique choices intrinsically linked (i.e. mutually connected and influential) or not?

Notes:

3.1 Summary:

3.2 Staging and the decision-making process:

Probe on:

How does the choice of regimes and techniques proceed?

Probe further on staging:

Is it *staged* e.g. regime choice is made first (or is involuntary), then the technique choice is made, or the reverse. If so, how are such choices ordered, and executed?

Is it *un-staged* i.e. regime choice and technique choice are made together as part of a complete choice process, which ends up with a regime choice (and the techniques to support it)?

Do you think staging could lead to a different choice pattern from un-staging?

Notes:

3.2 Summary:

3.3 Reasoning behind the choosing process

Probe on:

Why are decisions (on regimes and techniques) made through the process you have described earlier?

Are factors like transparency, speed of execution, ease of execution, regulatory compliance, etc. important?

To what extent is your decision process, as described earlier, judgment-based (e.g. on previous experience, intuition, hunch, etc.) **or** procedurally-based (e.g. on computational technology, decision support, rule of thumb, yardstick comparison, etc.)

Notes:

3.3 Summary:

3.4 Characteristics of the decision-making process

viz. decisions over regimes and techniques

Probe on:

How does complexity affect the decision making process?

What are the key characteristics of complexity in this context?

How do uncertainty/risk affect the decision making process?

Are 'hard' risk measures (e.g. actuarial or statistical estimates) or 'soft' risk measures (e.g. risk classes, subjective estimates) more influential in this context?

Do you have enough information for rational decision making?

Are decisions made by individuals, teams or both?

Is decision-making subject to time pressure?

Notes:

3.4 Summary:

END

Appendix F: Questionnaire with Pre-Letter (for Taiwanese Companies)

研究參與資訊說明

女士/先生，您好：

我們是來自英國 Strathclyde 大學的研究團隊，在 Carnegie Trust for the Universities of Scotland 的支持下，進行運用敘述性偏好法於財務報表之研究。此計畫探討公司於財務報表中的選擇，及其相關成本與效益。希望透過分析企業選擇行為之實務資料，提升對會計選擇之瞭解。此計畫考量臺灣近年的會計法規重要變動，期望能提供重要的政策見解，並對企業、投資人與法規制訂單位有所助益。

若您或您指派的合適人選能填妥下列問卷，盡量於一個月內以電子郵件或紙本的方式寄給許育綝小姐(聯絡資料請見下方)，我們將會十分感謝。若您對此研究或問卷有任何疑問也請隨時與我們連繫。

在此先謝謝您。

順頌 籌祺

Dr. Julia A. Smith
Department of Accounting and Finance, University of Strathclyde
Email: julia.smith@strath.ac.uk

Professor Gavin C. Reid
University of St Andrews
University of Strathclyde
University of the West of Scotland
Email: gcr@st-andrews.ac.uk

Ms. Yu-Lin Hsu (許育綝 小姐)
Department of Accounting and Finance, University of Strathclyde
Email: yulin.hsu@strath.ac.uk
Address: Department of Accounting and Finance, Strathclyde Business School, Curran Building, 100 Cathedral Street, Glasgow G4 0LN, UK

研究參與同意書

其他研究參與資訊：

1. 所有回覆將以匿名方式處理。
2. 資料會機密地處理，並僅用於學術研究。此研究成果將撰寫於繳交給資助單位的報告中，而後續之研究成果將呈現於學術期刊與一篇博士論文中。
3. 填寫此問卷約需十分鐘。
4. 此調查為自願性的，若您願意參與，請盡量將問卷填寫完整並回覆給我們，我們由衷感謝您的回覆。

請於下列簽署參與同意書(簽名或打字)：

基於上述條件，我同意參與此研究。

姓名 _____ 日期 _____

所屬機構

_____

問卷填寫說明

問卷填寫說明：

1. 請提供現有之最新資料。
2. 金額以「新台幣」為主；若使用其他幣別，還煩請註明。
3. 請依您最佳之判斷填寫問卷，或提供最適當的估計。

請將填妥之問卷寄回至：yulin.hsu@strath.ac.uk

─問卷開始─

第一部份、公司基本資料

數據毋須百分之百正確，若您不知正確的數據，請提供最精確之預估數據。

1.1 公司規模

員工人數 _____ 年度營業收入(NTD) _____

總權益 (NTD) _____ 總資產 (NTD) _____

1.2 公司創建年份 _____

1.3 貴公司銷售市場及進貨成本地理分布

	臺灣	中國大陸	亞洲其他	美國	歐洲	其他市場
銷售 (%)	_____	_____	_____	_____	_____	_____
成本 (%)	_____	_____	_____	_____	_____	_____

1.4 貴公司之年度營業收入成長率 _____

1.5 貴公司之年度研發費用 (NTD) _____

1.6 貴公司之本益比(P/E ratio) _____

1.7 貴公司之產業別 (請於次頁之產業分類列表中選取) _____

1.8 貴公司之經營權分佈 (%)

內部人 _____ 機構投資人 _____ 其它 _____
(如：公司管理階層) (如：共同基金)

1.9 貴公司之財務槓桿

總資產/權益 _____ 負債/權益 _____

1.10 下列敘述符合貴公司組織結構之程度 (請圈選)

使用團隊做決策之頻率 極低 | 低 | 中等 | 高 | 極高

授權個人做決策之頻率 極低 | 低 | 中等 | 高 | 極高

公司薪水階級制度是否明顯 非常不明顯 | 不明顯 | 中等 | 很明顯 | 非常明顯

公司組織階級制度是否明顯 非常不明顯 | 不明顯 | 中等 | 很明顯 | 非常明顯

產業分類碼

產業分類碼	產業敘述
01-09	農業、漁業、礦業
10-30	重工業
31-44	輕工業與建築業
45-58	批發及零售業
59-83	專業性服務及財務服務業
84-99	公共、私人及社會服務業

第二部份、財務報導準則

2.1. 目前之選擇

2.1.1 目前採用之財務報導準則

2.1.1.1 貴公司需準備何種財報？(請圈選所有符合之選項)

企業集團：合併報表 | 母公司獨立報表 | 子公司獨立報表

非企業集團：獨立報表

2.1.1.2 貴公司目前可選擇之財務報導準則為何？ (請圈選所有符合之選項)

IFRS | ROC GAAP | IFRS for SMEs | 其它 _____

若不同種類之財報(合併報表、獨立報表)，可選擇之準則不同，請加以說明：

_____

_____

_____

2.1.1.3 貴公司目前採用之財務報導準則為何？(請圈選所有符合之選項)

IFRS | ROC GAAP | IFRS for SMEs | 其它 _____

何時開始採用上列準則？_____

若您於不同種類之財報(合併報表、獨立報表)，選擇不同之準則，請加以說明：

_____

_____

_____

2.1.2 於採用之時點，您所認知的採用成本為何？對於未採用之準則，當時認知的採用成本為何？ (請圈選)

IFRS	N/A	無	低	中等	高	極高
ROC GAAP	N/A	無	低	中等	高	極高
IFRS for SMEs	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項準則請選 N/A]

2.1.3 於採用之時點，您所認知的採用效益為何？對於未採用之準則，當時認知的採用效益為何？ (請圈選)

IFRS	N/A	無	低	中等	高	極高
ROC GAAP	N/A	無	低	中等	高	極高
IFRS for SMEs	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項準則請選 N/A]

2.2. 預期之選擇

2.2.1 預期採用之財務報導準則

2.2.1.1 近年會計法規之變動

2.2.1.1.1 依規定貴公司是否需強制採用 IFRS？(請圈選)

否 | 是，依規定從_____年起需強制採用 IFRS，我們(將/已)從_____年起採用。

2.2.1.1.2 依規定貴公司未來是否可採用 IFRS for SMEs？(請圈選)

否 | 是

2.2.1.2 2015 年後，貴公司採用以下財務報表準則的可能性為何？(請圈選)

IFRS	N/A	無	低	中等	高	極高
ROC GAAP	N/A	無	低	中等	高	極高
IFRS for SMEs	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您於 2015 年後無法選擇此項準則請選 N/A]

若您未來於不同種類之財報(合併報表、獨立報表)，將選擇不同之準則，請加以說明：_____

_____

若您未來於不同時點(例如：未來幾年 IFRS for SMEs 引進後)，將選擇不同之準則，請加以說明：_____

_____

_____

2.2.2 對於以下準則，您所預期之 2015 年後採用的成本為何？ (請圈選)

IFRS	N/A	無	低	中等	高	極高
ROC GAAP	N/A	無	低	中等	高	極高
IFRS for SMEs	N/A	無	低	中等	高	極高
Other_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您於 2015 年後無法選擇此項準則請選 N/A]

2.2.3 對於以下準則，您所預期之 2015 年後採用的效益為何？ (請圈選)

IFRS	N/A	無	低	中等	高	極高
ROC GAAP	N/A	無	低	中等	高	極高
IFRS for SMEs	N/A	無	低	中等	高	極高
Other_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您於 2015 年後無法選擇此項準則請選 N/A]

第三部份、財務報表處理方法

3.1. 財務報表處理方法之選擇

3.1.1 無形資產

3.1.1.1 貴公司可選擇之衡量**無形資產**的方法為何？ (請圈選)

成本法	市價法
收益現值法	其它 _____

3.1.1.2 在 3.1.1.1 圈選之方法中，哪些是您真正在使用的方法及其重要性。請於有在使用方法之對應表格，依序填入 1, 2 等數字；1 代表最重要的方法。

☐ 成本法	☐ 市價法
☐ 收益現值法	☐ 其它_____

3.1.2 研發成本

3.1.2.1 貴公司可選擇之處理**研發成本**的方法為何？ (請圈選)

將其認列為費用	將其認列為資產

將其認列為其他項目(請說明) _____

3.1.2.2 在 3.1.2.1 圈選之方法中，哪些是您真正在使用的方法及其重要性。請於有在使用方法之對應表格，依序填入 1, 2 等數字；1 代表最重要的方法。

☐ 將其認列為費用　　☐ 將其認列為資產

☐ 將其認列為其他項目(請說明) _____

3.1.3 投資性資產

3.1.3.1 貴公司可選擇之衡量**投資性資產**的方法為何？ (請圈選)

市價法 | 成本法

公平價值法 | 其它 _____

3.1.3.2 在 3.1.3.1 圈選之方法中，哪些是您真正在使用的方法及其重要性。請於有在使用方法之對應表格，依序填入 1, 2 等數字；1 代表最重要的方法。

☐ 市價法　　☐ 成本法

☐ 公平價值法　　☐ 其它 _____

3.2. 財務報表處理方法之採用成本與效益

3.2.1 對於以下方法，您所認知之採用**成本**為何？ (請圈選)

3.2.1.1 衡量**無形資產**的方法

成本法	N/A	無	低	中等	高	極高
收益現值法	N/A	無	低	中等	高	極高
市價法	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項方法請選 N/A]

3.2.1.2 處理**研發成本**的方法

將其認列為費用	N/A	無	低	中等	高	極高
將其認列為資產	N/A	無	低	中等	高	極高
將其認列為其他項目_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項方法請選 N/A]

3.2.1.3 衡量**投資性資產**的方法

市價法	N/A	無	低	中等	高	極高
公平價值法	N/A	無	低	中等	高	極高
成本法	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項方法請選 N/A]

3.2.2 對於以下方法，您所認知之採用**效益**為何？ (請圈選)

3.2.2.1 衡量**無形資產**的方法

成本法	N/A	無	低	中等	高	極高
收益現值法	N/A	無	低	中等	高	極高
市價法	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項方法請選 N/A]

3.2.2.2 處理**研發成本**的方法

將其認列為費用	N/A	無	低	中等	高	極高
將其認列為資產	N/A	無	低	中等	高	極高
將其認列為其他項目_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項方法請選 N/A]

3.2.2.3 衡量**投資性資產**的方法

市價法	N/A	無	低	中等	高	極高
公平價值法	N/A	無	低	中等	高	極高
成本法	N/A	無	低	中等	高	極高
其它_____	N/A	無	低	中等	高	極高

[(N/A) 表示不適用；若您無法選擇此項方法請選 N/A]

3.3. 財務報表處理方法之重要性

3.3.1 請圈選您認為**最重要的**三個財報方法面向。請於三個最重要之面向的對應方格中填入 1, 2, 3；1 表示最重要的面向。

☐ 現金流量表的格式　　☐ 金融工具之處理

☐ 負債之處理　　☐ 稅務處理

☐ 借款成本之處理　　☐ 有形資產之處理

☐ 無形資產之處理　　☐ 企業合併

☐ 退休金計畫之處理　　☐ 研發成本之處理

☐ 衡量投資性資產　　☐ 收入之認列

☐ 租賃之處理　　☐ 或有事項之處理

☐ 其它 _____

3.3.2 請圈選您認為**最不重要的**三個財報方法面向。請於三個最不重要之面向的對應方格中填入 1, 2, 3；1 表示最不重要的面向。

☐ 現金流量表的格式　　☐ 金融工具之處理

☐ 負債之處理　　☐ 稅務處理

☐ 借款成本之處理　　☐ 有形資產之處理

☐ 無形資產之處理　　☐ 企業合併

☐ 退休金計畫之處理　　☐ 研發成本之處理

☐ 衡量投資性資產　　☐ 收入之認列

☐ 租賃之處理　　☐ 或有事項之處理

☐ 其它 _____

第四部份、財務報表準則與方法

財務報導準則指的是一整個系統之財務報表規範，例如 IFRS。若您選擇了一個財務報導準則，則需遵守此框架下之所有規範。

財務報表處理方法指的是處理某部份財務報表時可用之方法，例如成本法與市價法為衡量無形資產時所用的方法。

4.1 下列對於財務報導準則與財報處理方法之敘述是否符合貴公司之情況？(請圈選)

(a) 先比較各個準則下可用之財務報表處理方法，確認哪個準則下之財報處理方法較為適合，再決定要採用哪個準則。

從未這麼做 | 有時這麼做 | 常這麼做 | 很常這麼做 | 總是這麼做

(b) 直接選擇財務報導準則，再於此準則框架下選取可用之財報處理方法。

從未這麼做 | 有時這麼做 | 常這麼做 | 很常這麼做 | 總是這麼做

(c) 以上兩種敘述皆不符合，我們的做法是(請說明)_____

_____

從未這麼做 | 有時這麼做 | 常這麼做 | 很常這麼做 | 總是這麼做

4.2 您於財務報導**準則**方面之選擇，對您選擇財務報表處理**方法**的重要性為何？(請圈選)

重要程度　　極低 | 低 | 中等 | 高 | 極高

4.3 您於財務報表處理**方法**方面之選擇，對您選擇財務報導**準則**的重要性為何？(請圈選)

重要程度　　極低 | 低 | 中等 | 高 | 極高

–問卷結束–

請將填好之問卷寄至：yulin.hsu@strath.ac.uk

Appendix G: Pre-Letter for Semi-Structured Interview (for Taiwanese Companies)

女士/先生，您好：

我們是來自英國 Strathclyde 大學的研究團隊，來信詢問貴公司是否願意參與我們的研究。此研究主要是透過面談，探討企業於財務報導準則與報表處理方法之選擇。我們將至貴公司拜訪(今年 5/26-6/27 間)，並於保密的情況下進行為期一個小時內的訪談。此研究很榮幸地獲得 Carnegie Trust 的支持與贊助。

從我們先前關於財務報導準則與處理方法的研究中，發現成本效益對於公司的會計選擇有顯著的影響。然而法規制定者持續修改會計準則，企業為了在競爭的環境中維持其市場地位，需快速且精確地對這些變動做出反應。目前會計選擇越趨複雜，但我們對會計選擇背後之考量的瞭解卻很有限。

因此，我們希望透過面談方式，深入探討企業如何選擇會計準則與處理方法，並著重於其做此決定的原因與動機。此研究也考量臺灣近年重要的會計準則變動，包含於 2013 年及 2015 年兩階段實施之國際財務報導準則(IFRS)。我們期望此研究能提供重要的政策見解，並有助於企業、投資人與法規制訂單位。

我們的訪談議程包含：(1) 財務報導準則與處理方法等選擇背後之意涵與動機，(2) 財務報導準則與財務報表處理方法兩種選擇之交互作用。根據我們先前訪談的經驗，透過訪談架構之設計，通常能促使我們拜訪的企業獲取相關知識與見解。

我們很樂意將研究成果以簡潔易懂的方式呈現給您，誠心希望貴公司能同意參與此研究。若您願意參與研究面談，請聯絡 yulin.hsu@strath.ac.uk 以討論面談之詳細時間(今年 5/26-6/27 間)與地點，若您對此研究有任何疑問也請隨時與我們連繫。

順頌 籌祺

Dr Julia A Smith, Prof Gavin C Reid, Ms Yu-Lin Hsu (許育綝) 謹上

Address: Department of Accounting and Finance, Strathclyde Business School, Curran Building, 100 Cathedral Street, Glasgow G4 0LN, UK
Email: julia.smith@strath.ac.uk, gcr@st-andrews.ac.uk, yulin.hsu@strath.ac.uk
Phone: +44-141-548-4958

Appendix H: Follow-up Thank-You Letter for Semi-Structure Interview (for Taiwanese Companies)

運用敘述性偏好法於財務報表之研究
Applying the Stated Preference Approach
to the Study of Financial Reports

訪談者： _____

受訪者/受訪公司： _____

訪談地點： _____

訪談日期：_____ 訪談起始時間： _____

女士先生，您好：

感謝您願意參與此次訪談(請參閱上述訪談資訊)，此計畫在於探討公司的會計選擇，希望藉此提升對財務報表之瞭解，並對企業、投資人與法規制訂單位有所助益。在此訪談中，我們希望瞭解貴公司對以下三項主題之看法，其分別為：財務報導準則的選擇、財務報表處理方法之選擇，以及上述兩種選擇之關連(請參閱附件之議程)。

此訪談為自願性參與，所有回覆將以匿名的方式呈現；資料會機密地處理，並僅用於學術研究。此研究成果將撰寫於繳交給資助單位的報告中，而後續之研究成果將呈現於學術期刊與一篇博士論文中。我們也會將研究主要發現以簡潔易懂的方式呈現給您，衷心期待與您的會面。

順頌 籌祺

Dr. Julia A. Smith (Email: julia.smith@strath.ac.uk)
Department of Accounting and Finance, University of Strathclyde

Professor Gavin C. Reid (Email: gcr@st-andrews.ac.uk)
University of St Andrews, University of Strathclyde, University of the West of Scotland

Ms. Yu-Lin Hsu 許育綝小姐 (Email: yulin.hsu@strath.ac.uk)
Department of Accounting and Finance, University of Strathclyde

請於下列簽署研究同意書: 我同意參與此研究。

簽名：_____ 日期：_____

訪談議程

1. 財務報導準則之選擇
   1.1 可選擇之財務報導準則，及目前之選擇
   1.2 選擇時的重要考量及因素
   1.3 衡量成本與效益
   1.4 財務報表處理方法之選擇對於選擇財務報導準則之影響
   1.5 不同報表所採用之準則(合併報表、獨立報表)
   1.6 新興政策之影響

2. 財務報表處理方法之選擇
   2.1 衡量無形資產
   2.2 處理研發成本
   2.3 衡量投資性資產
   2.4 財報處理方法的重要性

3. 選擇間的關聯，及選擇背後之考量與意涵
   3.1 財務報導準則之選擇、與財務報表處理方式之選擇，兩者間的關聯
   3.2 階層化與決策過程
   3.3 選擇過程背後之考量與意涵
   3.4 決策過程之特性

Appendix I: Instrument of Semi-Structure Interview (for Taiwanese Companies)

1. 財務報導準則之選擇 1.1 可選擇之財務報導準則，及目前之選擇 探討要點： 貴公司是否準備合併報表、母公司獨立報表或子公司獨立報表？ 哪些準則可供選擇(例如：IRFS, ROC GAAP) (對於所有種類的報表)？ 是哪些因素影響可選擇之準則(例如：法規、企業規模、上市與否)？ 貴公司真正選擇之準則為何(對於各種類之報表)？
訪談記錄：
1.1 總結：

1.2 選擇時的重要考量及因素

探討要點：

選擇時的重要考量及因素為何？

您是如何做(準則選擇)決定的？

為何這些因素很重要？

對於不同報表(例如：合併報表與獨立報表)是否有不同考量，為什麼？

訪談記錄：

1.2 總結：

1.3 衡量成本與效益 探討要點： 您在選擇準則時，是否考慮不同準則之成本與效益，為什麼？ 若有考量，您是如何衡量成本與效益的？(例如：運用單一指標、主觀判斷，或其他方法)
訪談記錄：
1.3 總結：

1.4 財務報表處理方法之選擇對於選擇財務報導準則之影響 探討要點： 您在選擇會計準則時，是否考量各準則下可選擇之財務報表處理方法？ 若是如此，財務報表處理方法之選擇、如何影響貴公司於會計準則之選擇？
訪談記錄：
1.4 總結：

1.5 不同報表所採用之準則(合併報表、獨立報表) 探討要點： 您是否於不同種類之報表採用不同之會計準則，為何如此？ 不同種類報表之準則選擇，如何互相影響/其關聯為何？ 若合併報表必須採用某一準則，是否影響您在獨立報表準則之選擇？
訪談記錄：
1.5 總結：

1.6 新興政策之影響

例如：於 2013、2015 年即將引進的新會計準則

探討要點：

未來您可選擇哪些準則？(例如：上市公司、非上市之公開發行公司)

是否與您現在可選之準則不同？

若未來可選之準則不同於現在，為何不同、又如何不同？

若預期未來繼續使用目前之準則：為何如此？(例如：法規、先前經驗有助益)

若預期未來將選用其他準則：為何如此？其成真的可能性為何？

而其中，以下各項扮演的角色為何？會計法規變更、公司的新目標、新準則帶來更好的成本效益。

是哪些重要因素促使您改用其他準則？

您如何衡量並決定採用其他準則或維持現狀？

訪談記錄：

1.6 總結：

2. 財務報表處理方法之選擇

2.1 衡量無形資產

探討要點：

衡量無形資產時可選之方法為何 (例如：成本法、市價法、收益現值法)，您的選擇為何？

若沒有選擇：為何如此(例如：法規)？ 而其影響為何(例如：對於選擇之方法、是否符合成本效益)？

若有選擇：選擇時之重要因素為何？在選擇時您如何衡量各方法之成本效益？

會計準則之選擇，如何影響您在衡量無形資產時方法的選擇？

訪談記錄：

2.1 總結：

2.2 處理研發成本

探討要點：

處理研發成本時可選之方法為何 (例如：認列為費用/資產)，您的選擇為何？

若沒有選擇：為何如此(例如：法規)？ 而其影響為何(例如：對於選擇之方法、是否符合成本效益)？

若有選擇：選擇時之重要因素為何？在選擇時您如何衡量各方法之成本效益？

會計準則之選擇，如何影響您在處理研發成本時方法的選擇？

訪談記錄：

2.2 總結：

2.3 衡量投資性資產

探討要點：

衡量投資性資產時可選之方法為何 (例如：市價法、公平價值法、成本法)，您的選擇為何？

若沒有選擇：為何如此(例如：法規)？ 而其影響為何(例如：對於選擇之方法、是否符合成本效益)？

若有選擇：選擇時之重要因素為何？在選擇時您如何衡量各方法之成本效益？

會計準則之選擇，如何影響您在衡量投資性資產時方法的選擇？

訪談記錄：

2.3 總結：

2.4 財報處理方法的重要性

探討要點：

(在所有種類的報表中，包含合併報表、母公司報表、子公司報表)何為最重要的報表處理方法或項目？

為何這些處理方法或項目很重要？

這些處理方法與項目，在會計選擇中扮演的角色為何？

它們又是如何影響決策的品質(例如：速度、精確度、符合法規程度、透明度、重要性)?

訪談記錄：

2.4 總結：

3. 選擇間的關聯，及選擇背後之考量與意涵

3.1 財務報導準則之選擇、與財務報表處理方式之選擇，兩者間的關聯

探討要點：

此兩種選擇(也就是準則、處理方法之選擇)是否相互影響？若是如此，其如何影響對方？

準則之選擇對處理方法之選擇，是否重要？

處理方法之選擇對準則之選擇，是否重要？

此兩種選擇本質上是否相關(linked) ？(也就是相互關聯 connected 且相互影響？)

訪談記錄：

3.1 總結：

3.2 階層化與決策過程

探討要點：

您如何進行準則與方法的選擇？

深入探討「階層化」:

若分階層：例如先選準則(或此為非自願性的)、再選處理方法；或相反。若是如此，這些選擇是如何被排序及執行的？

若未分階層，也就是在一個完整的決策過程中，兩種選擇同時進行，最後決定出準則(與其下的處理方法)。

您覺得分階層，是否會得到(和不分階層)不一樣的選擇/結果？

訪談記錄：

3.2 總結：

3.3 選擇過程背後之考量與意涵

探討要點：

為何您使用上述之決策過程(來決定此兩選擇)？

以下這些因素(在決策過程中)之重要性為何：透明度、執行速度、執行難易度、符合法規。

以上之決策過程是如何決定的？依靠判斷 (例如：先前經驗、直覺/多年累積之直覺) **或** 依據程序(例如：電腦計算、決策支援、經驗法則、比較各項指標等)。

訪談記錄：

3.3 總結：

3.4 決策過程之特性

也就是決定準則與處理方法的過程

探討要點：

決策之複雜度如何影響決策過程？

決策過程中，複雜度的主要特性(及來源)為何？

不確定性與風險如何影響決策過程？

在決策過程，下列何者(風險衡量方法)更具影響力？'hard' risk measures (例如：精算或統計估計) 或 'soft' risk measures (例如：風險類別/分類、主觀判斷)。

是否有足夠的資訊，做出理性/合宜的決定？

是由個人、團隊、或兩者做的決定？

此決策過程是否受限於時間的壓力？

訪談記錄：

3.4 總結：

END