



**CORPORATE GOVERNANCE MECHANISM AND
FAMILY INFLUENCE IMPACT ON TAX AVOIDANCE
BEHAVIOURS OF UK FAMILY FIRMS**

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ABSTRACT

This thesis investigates the complex relationships between corporate governance mechanisms, family influence, and tax avoidance behaviours in UK family firms. Drawing on agency theory and socio-emotional wealth perspectives, the study addresses critical gaps in understanding how corporate governance mechanisms' influence on tax avoidance varies between family and non-family firms and how different dimensions of family influence shape tax planning strategies.

Using a quantitative research design, the study analyses a balanced panel dataset of 80 UK-listed firms (40 family and 40 non-family firms) over the period 2007-2019. Data was sourced from NRG Metrics, FAME, and company annual reports. The empirical analysis employs System GMM and two-stage least squares (2SLS) estimators to address endogeneity concerns, with fixed-effects and random-effects models serving as robustness checks.

The research progresses through three interconnected empirical studies examining: (1) comparative differences in governance effectiveness between family and non-family firms; (2) the direct effects of family ownership concentration and board representation on tax avoidance; and (3) the moderating role of family influence on governance-tax avoidance relationships.

Key findings reveal a dual-channel framework of family influence where family ownership concentration and board representation serve distinct but complementary functions. Family board representation provides direct strategic control over tax decisions, while family ownership concentration enhances the effectiveness of formal governance mechanisms. Notably, the study demonstrates that board independence operates differently in family firm contexts, with independent directors functioning as a strategic resource rather than solely as a monitoring mechanism.

The research makes significant theoretical contributions by resolving contradictory findings in family business literature through the establishment of this dual-channel

family influence framework. It demonstrates that family influence dimensions operate through different pathways rather than have competing functions. While family board representation dominated direct effects of tax avoidance, family ownership concentration dominated the moderation effects across multiple governance domains. The study provides evidence for context-dependent governance effectiveness, showing how governance mechanisms may operate differently across organizational forms.

Practical implications include insights for regulators developing family firm-specific governance frameworks, guidance for family business owners balancing tax efficiency with reputational concerns, and recommendations for institutional investors evaluating family firm governance quality. The study contributes to ongoing policy debates around corporate tax transparency and governance effectiveness in privately influenced firms.

The research advances understanding of corporate governance heterogeneity across organizational forms and provides empirical evidence for the need to differentiate governance expectations and regulatory approaches between family and non-family firms. Future research directions include cross-country comparative studies, and exploration of governance mechanisms specific to family firm contexts.

Keywords: Corporate Governance, family firms, tax avoidance, board independence, family influence, UK, agency theory, socio-emotional wealth

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DEDICATION

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DECLARATION

I certify that no part of this thesis has been acknowledged for the granting of any other degree or diploma by any institution or university. The thesis is entirely based on new research, with the exception of quotations and citations that have been appropriately acknowledged.

Azeez Balogun

August 2025

LIST OF ACRONYMS AND ABBREVIATIONS

BEPS: Base Erosion and Profit Shifting

BTD: Book-Tax Difference

CbCR: Country-by-Country Reporting

CCO: Corporate Criminal Offence

CEO: Chief Executive Officer

CFO: Chief Financial Officer

CIIA: Chartered Institute of Internal Auditors

CMA: Competition and Markets Authority

ETR: Effective Tax Rate

FE: Fixed Effects

FRC: Financial Reporting Council

GAAR: General Anti-Abuse Rule

GMM: Generalised Method of Moments

HMRC: His Majesty's Revenue and Customs

IFB: Institute for Family Business

IIA: Institute of Internal Auditors

OECD: Organisation for Economic Co-operation and Development

RE: Random Effects

SEW: Socioemotional Wealth

UK: United Kingdom

1. Introduction

1.1 Research Context

Tax avoidance remains a major policy and public concern in the UK (United Kingdom), driven by increased corporate non-compliance and the growing public demand for ethical business practices. Over the past decade, high-profile tax controversies involving both multinational and domestic firms have intensified regulatory pressure and amplified calls for transparency in corporate tax planning. For instance, HMRC estimated that the UK tax gap, defined as the difference between the total taxes owed and the amount collected, was £32 billion in 2020, of which a notable share was attributed to avoidance behaviours by large corporations (HMRC, 2021). These events have prompted increased scrutiny of governance practices and interest in how governance structures influence tax-related decision-making. Given the blurred boundary between legal tax minimisation and ethically questionable tax avoidance, it is increasingly important to understand how governance structures shape tax avoidance decisions.

Family firms occupy a distinctive and influential position within this landscape. Despite accounting for over 85% of all UK businesses and significantly contributing to employment and gross value added (Institute for Family Business, 2022), family firms remain underrepresented in mainstream corporate governance and tax avoidance research. Their unique and complex identity, combining business and family priorities, shapes strategic behaviour in ways that diverge from widely held firms. With overlapping ownership and control, intergenerational concerns, and socio-emotional wealth objectives, family firms may simultaneously favour risk-averse tax strategies to preserve legacy or pursue aggressive tax planning enabled by concentrated decision-making authority (Miller and Le Breton-Miller, 2006; Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, and Moyano-Fuentes, 2007; Astrachan, Astrachan, Kotlar and Nichiels, 2021).

Motivation for Research

Although tax avoidance has been widely studied in the context of publicly listed corporations, the behaviour of family firms with respect to tax avoidance remains largely unclear. This is because existing research provides inconsistent findings on whether family firms are more or less likely to engage in tax avoidance compared to their non-family counterparts. Some scholars argue that reputational concerns and long-term stewardship goals discourage aggressive tax practices. Others contend that the unique structural features of family firms, such as unified control and limited external oversight, create opportunities for opportunistic tax behaviour. These opposing perspectives highlight an unresolved debate within the literature.

Additionally, while corporate governance mechanisms such as board independence, audit quality, and executive compensation have been widely examined in relation to tax avoidance, their relevance and effectiveness within family firm contexts remain underexplored. The interaction between governance practices and family-specific attributes (e.g., ownership concentration and family representation on the board) presents a nuanced area of study with significant theoretical and practical implications.

This thesis addresses these gaps by investigating how corporate governance structures and family influence jointly shape tax avoidance in UK-listed family firms. By combining agency theory with socio-emotional wealth (SEW) perspectives, the study offers a more holistic view of tax avoidance tendencies in family-owned enterprises, integrating perspectives on risk, control, and reputation (Gómez-Mejía et al., 2007; Astrachan et al., 2021). It responds to calls for greater differentiation across organisational typologies in tax avoidance research and contributes to ongoing debates around governance effectiveness in privately influenced firms.

These motivating factors shape the study's central focus, aim and objectives, outlined in the next section of this chapter.

1.2 Research Focus, Aim and Objectives

The central research aim is to evaluate the extent to which various corporate governance arrangements and dimensions of family influence shape tax avoidance behaviours in UK family firms.

To achieve this aim, the study pursues the following research objectives:

- Assess whether and how corporate governance mechanisms influence tax avoidance in family versus non-family firms and identify the most influential within each group.
- Examine the role of internal, management compensation, and regulatory governance mechanisms in shaping tax avoidance in family firms.
- Investigate the individual and joint influence of family ownership and family board representation on tax avoidance.
- Explore the moderating role of family influence on the relationship between corporate governance and tax avoidance.

These objectives inform the design of the four empirical studies presented in this thesis presented in the research questions in the next section of this chapter.

1.3 Research Questions

The following research questions directly reflect the structure and focus of the four empirical chapters:

1. Are there differences in the impact of corporate governance mechanisms on tax avoidance in family and non-family firms?
2. What are the effects of internal corporate governance mechanisms on tax avoidance in UK family firms?
3. How do family ownership and board representation influence tax avoidance in family firms?

4. To what extent does family influence moderate the relationship between corporate governance mechanisms and tax avoidance?

1.4 Contribution of the Study

This study contributes to the academic and practical discourse on corporate governance and tax avoidance by offering new theoretical insights and empirical clarity, and a rigorous methodological approach. It presents corporate governance as a credible lens to explain variations in tax avoidance behaviour between family and non-family firms. In addition, it also presents an attempt at reconceptualising family ownership and board involvement as a joint governance construct influencing tax strategy, a rarely integrated perspective in prior studies.

Empirically, it provides one of the first known longitudinal UK-based comparative studies of tax avoidance in family versus non-family firms. The study is distinguished by its integration of corporate governance variables, such as board structure, audit characteristics, and management incentives, alongside the application of advanced econometric techniques. It not only offers detailed insights into the governance drivers of tax avoidance, but also tests the moderating effect of family influence, including ownership and board presence, using interaction terms across four empirical models. These features collectively provide a richer empirical framework for understanding tax strategies across different firm typologies.

Theoretically, the study integrates classical agency theory and socio-emotional wealth (SEW) theory to explain governance and tax behaviour in family firms. Unlike previous studies that treat these frameworks separately (e.g., Schulze, Lubatkin, Dino and Buchholtz, 2001), this research offers an integrative conceptual lens that explains how family ownership, identity, and emotional goals shape financial decision-making in tension with rational agency motives. This conceptualisation is empirically tested through a multi-model design across four chapters, allowing observable behaviours in family firms to be interpreted through both financial and socio-emotional perspectives. The approach advances theoretical discourse by

clarifying coexistence of risk-averse stewardship and assertive tax positioning in family-controlled firms.

Methodologically, the study improves empirical reliability by addressing endogeneity, a common limitation in tax avoidance research, using Generalised Method of Moments (GMM) and two-stage least squares (2SLS) estimations (Wooldridge, 2010). These methodological choices enhance causal inference and improve the robustness of findings in a field where endogeneity is often under-addressed. Furthermore, it constructs proxies tailored to the UK context, including shareholding thresholds and family board presence, as well as governance mechanisms such as board independence, audit quality, and remuneration committees, which have received limited empirical attention in family firm research (Jaafar, James, and Abdul Wahab, 2012). This extends prior approaches by adapting variable operationalisation to the distinct organisational characteristics of UK family firms.

The highlighted contributions address the study's research objectives and provide a platform for advancing understanding of tax avoidance within the unique governance dynamics of UK family firms. These insights can inform policymakers, tax authorities, and family business advisors working to enhance governance standards and compliance practices. Practically, this research addresses urgent policy concerns in the UK where family firms contribute £637 billion annually to the economy and 25% of government tax receipts (Institute for Family Business, 2020). With HMRC's estimated £32 billion tax gap (HMRC, 2022), understanding how governance mechanisms specifically function in family firms is crucial for informing targeted policy interventions and compliance strategies. The findings provide actionable insights for tax authorities seeking to develop family firm-specific guidance, policymakers designing governance regulations, and family business advisors working to balance tax efficiency with compliance obligations. This practical relevance is particularly timely given recent UK regulatory developments including the General Anti-Abuse Rule (HM Treasury, 2013), country-by-country

reporting requirements (HM Treasury, 2016), and Corporate Criminal Offences legislation (HMRC, 2017).

1.5 Research Methodology (Summary)

The study adopts a quantitative, positivist research paradigm using secondary data for 80 firms (40 family, 40 non-family) over a 13-year period (2007–2019). Data sources include NRG Metrics, FAME, and company annual reports.

A balanced panel dataset was developed and analysed using Generalised Method of Moments (GMM) and two-stage least squares (2SLS) estimators as the primary models to address endogeneity. This issue arises due to the potential for reverse causality and omitted variable bias in the relationship between governance structures and tax avoidance behaviour (Hanlon and Heitzman, 2010). Fixed-effects and random-effects models were also used as robustness checks to benchmark the consistency of key relationships across estimators, in line with best practices in tax avoidance research (e.g., Hanlon and Heitzman, 2010), where robustness across estimators is encouraged.

Tax avoidance encompasses the continuum of legal tax planning strategies, from conservative compliance to aggressive tax optimization that, while technically legal, may carry reputational or regulatory risks (Hanlon & Heitzman, 2010). This study examines tax planning behaviours across this spectrum, recognizing that family firms may position themselves differently along this continuum based on their governance structures and risk tolerance. The focus remains on legal tax strategies, distinct from illegal tax evasion.

The adopted variables for the purpose of this study were grouped into the following:

- Dependent: Tax avoidance (proxied by Book-Tax Difference, which reflects the gap between reported accounting income and taxable income)
- Independent: Corporate governance mechanisms (board structure, audit characteristics, management compensation)

- Moderating: Family influence (ownership %, board presence)
- Controls: Firm size, leverage, profitability, age

Family influence thresholds follow established literature, with family ownership measured as percentage shareholding and family board presence as one or more family members on the board, consistent with prior studies (Anderson & Reeb, 2003; Villalonga & Amit, 2006). While acknowledging potential limitations of these thresholds, they capture meaningful influence in the UK context where family firms prioritize board control over overwhelming ownership (Franks, Mayer, & Rossi, 2009).

Each empirical chapter tests hypotheses derived from theoretical frameworks and existing literature, applying the methodology described above to directly address the research objectives outlined in Section 1.2.

1.6 Structure of the Thesis

The remainder of this thesis is structured as follows:

- **Chapter 2** provides background context on UK corporate governance, tax policy, and family business dynamics.
- **Chapter 3** reviews theoretical frameworks and empirical literature on corporate governance, family firms, and tax avoidance, ending with identified gaps.
- **Chapter 4** outlines the research design, data sources, sample selection, and econometric models.
- **Chapters 5 to 7** present and discuss the results of the four empirical studies.
- **Chapter 8** concludes the thesis by summarising findings, contributions, limitations, policy implications, and suggestions for future research.

2. Study Background

2.1 Introduction

This chapter provides the contextual background for this thesis by examining the UK's corporate governance structures and the broader environment surrounding tax avoidance in family firms. While the introduction (Chapter 1) outlined the theoretical and empirical motivations for the study, this chapter offers a deeper understanding of the background conditions that make the research both timely and significant.

The chapter begins by exploring the evolution of the UK tax policy environment, including shifting regulatory frameworks and high-profile controversies that have brought corporate tax avoidance into the public spotlight. It then outlines the structure and expectations of corporate governance in the UK, with a focus on internal mechanisms such as board composition, audit committees, and remuneration oversight. The following section examines the distinctive role of family-owned businesses in the UK economy, highlighting their unique governance challenges and long-term orientation. The chapter then explores the interaction between governance and tax behaviours in family firms, setting the stage for the empirical investigations that follow.

By examining the tax policy changes, governance expectations, and family firm decision-making dynamics that shape governance and tax strategy in UK family firms, this chapter supports the development of the thesis objectives and reinforces the relevance of the study's focus.

2.2 Corporate Tax Policy and Avoidance in the UK

The UK corporate tax policy has experienced significant changes in the last two decades, influenced by increased scrutiny from policymakers, international regulators, and the public concerning aggressive tax planning. Numerous controversies involving multinational corporations such as Google, Amazon, and Starbucks has increased public attention, highlighting aggressive tax practices as socially irresponsible and triggering more robust regulatory responses.

Consequently, the UK government and HM Revenue & Customs (HMRC) have implemented targeted measures aimed at reducing the tax gap, deterring aggressive tax behaviours, and rebuilding public trust in corporate tax compliance.

In response to these issues, the UK government introduced the General Anti-Abuse Rule (GAAR) in 2013, which empowers HMRC to challenge tax arrangements lacking genuine commercial justification (HM Treasury, 2013; Freedman, 2016). In addition to the GAAR, the country-by-country reporting (CbCR) rules introduced in 2016 compel multinational corporations to transparently disclose income, taxes paid, and economic activities by jurisdiction (HM Treasury, 2016; OECD, 2015). As part of the effort to continuously strengthen corporate accountability and reduce the tax gap, Corporate Criminal Offences (CCO) legislation was enacted in 2017 which makes companies legally responsible if they do not take adequate steps to stop their stakeholders from committing and / or helping others commit tax evasion (HMRC, 2017). These together highlight both the UK's efforts to reduce the propensity for tax evasion as well as its commitment to international tax transparency standards. This aligns with OECD's Base Erosion and Profit Shifting (BEPS) project, designed to curb profit shifting and aggressive tax planning (OECD, 2020).

Despite these policy measures, the UK continues to face substantial challenges. For instance, HMRC estimated the tax gap, (i.e., the difference between taxes owed and collected) at £32 billion in 2020, with a significant portion linked to corporate organisations' attempt to engage in various forms of tax minimisation (HMRC, 2021). While this tax gap includes other factors such as evasion, computational errors, and refusal or inability to make tax-related payment, aggressive tax avoidance attracts vigorous public and media scrutiny. The potential reputational damage from this scrutiny tends to encourage corporate organisations to ensure that their tax positions align with ethical standards and stakeholder expectations (Sikka, 2010; Christensen and Murphy, 2004).

The changing taxation regulatory landscape and increased societal expectations have placed greater importance on corporate governance responsibilities for corporate organisations including family-controlled firms. Available studies have largely opined that family-controlled firms are guided by long-term stewardship principles, sensitive to public opinion, often argued to adopt particularly cautious and transparent tax practices (Sanchez-Marin, et al, 2016; Steijvers and Niskanen, 2014; Chen et al., 2010; Desia and Dharmapala, 2006). While the submission supports socioemotional wealth theory and stewardship perspectives (Gómez-Mejía et al., 2007; Miller and Le Breton-Miller, 2006), it is important to note that there is an alternative opinion from studies who have found that family firms may adopt aggressive tax strategies to preserve control, financial resources, and effect succession planning (Kovermann and Wendt, 2019; Gaaya, Lakhal, and Lakhal, 2017; Mafrolla and D’Amico, 2016; Anderson and Reeb, 2004). This, while a less aggressive stance may be important to some family firms in order to minimise reputational damage, other may prioritise the substantial financial gains from aggressive tax avoidance. While the numerous tax policy changes have ensured increased corporate responsibility among UK companies, the heterogeneity of family firm governance which is usually a function of their strategic priorities makes it difficult to generalise how the effects with respect to family firms.

Summarily, the UK’s tax policy environment, shaped by specific regulatory actions and ongoing public scrutiny, provides critical insights into the influence of governance structures on tax strategies in UK family businesses. It underscores that tax management is not merely a financial or legal matter but a strategic governance challenge with considerable ethical, reputational, and operational consequences.

2.3 Corporate Governance in the UK

Corporate governance refers to the systems by which companies are directed and controlled (Cadbury, 1992). In the UK, corporate governance is primarily guided by the UK Corporate Governance Code, which defines the roles of boards of directors and shareholders with the main goal of ensuring transparency and long-term

corporate success (Financial Reporting Council (FRC), 2024; Elsayed, Elshandidy, and Ahmed, 2022). Corporate governance gained prominence in the UK following high-profile corporate scandals, leading to the establishment of the Committee on the Financial Aspects of Corporate Governance, which published the Cadbury Report in 1992 (Cheffins and Reddy, 2022; FRC, 2018; FRC, 2016; Cheffins, 2015; Cadbury, 1992).

The Cadbury Report has experienced significant improvement over three decades, in its journey to its latest version published in 2024 (FRC, 2024). This improvement reflects continuous reviews by the Financial Reporting Council (FRC) through major reports, including Greenbury (1995), Hampel (1998), and Higgs (2003). These reports are in response to shareholder concerns about governance structures, financial crises, and the need to maintain robust corporate governance practices in the UK (FRC, 2024; Cheffins and Reddy, 2022; FRC, 2018; Cheffins, 2015; Ward, Wylie, and Hamill, 2013; Arcot, Bruno and Faure-Grimaud, 2010; FRC, 2010; FRC, 2008; FRC, 2003).

The UK Corporate Governance Code operates on a "comply or explain" principle, requiring companies to either follow the Code's guidelines or provide substantial explanations for non-compliance (FRC, 2024; FRC, 2018; Cheffins, 2015; Arcot et al., 2010). This flexibility has encouraged wider adoption of the Code, as companies recognize that compliance protects stakeholder interests, improves financial performance, and enhances their reputation as well-managed organizations (Ammann, Oesch and Schmid, 2011; Klapper and Love, 2004).

The drive for corporate governance adoption stems from extensive research on agency problems arising from conflicting stakeholder interests between principals (shareholders) and agents (management) (Jensen and Meckling, 1976; Karolyi, 2012). These conflicts occurs when managers or majority shareholders pursue their interests through managerial opportunism, majority shareholder expropriation of minority rights, and strategic decisions, that prioritize their personal interest at the

expense of minority shareholders and other stakeholders (Chen et al., 2010; Desai and Dharmapala, 2006).

The Code addresses these concerns through numerous requirements. For instance, governance mechanisms such as board composition preaches independence, with the inclusion of non-executive directors with responsibilities for oversight roles in strategic decision-making (FRC, 2024; Higgs, 2003). Audit committees ensure financial reporting integrity and risk assessment, while remuneration committees align executive compensation with long-term shareholder goal alignment (FRC, 2024; Smith, 2003). Generally, these corporate governance mechanisms aim to reduce agency costs and align stakeholder interests, that which is a core objective of the UK Corporate Governance Code.

Governance and Strategic Financial Decisions

The influence of the UK's governance frameworks extends to strategic financial decisions, including tax planning and risk management (FRC, 2024; Mallin, 2019). Board-level committees such as audit committees, now play important roles in assessing inherent risks associated with aggressive tax strategies (Smith, 2003; FRC, 2024). This has become increasingly necessary given that regulatory changes such as the General Anti-Abuse Rule (GAAR) and Corporate Criminal Offences legislation, now assume tax planning to be board-level governance issue as opposed to its previous assumption as a technical-level function (HM Treasury, 2013; HMRC, 2017; RSM UK, 2024). The principles-based nature of UK governance therefore creates an environment where companies are encouraged to justify their strategic choices, including tax positions, with the aim of ensuring accountability and stakeholder value (FRC, 2024; Mallin, 2019).

Governance in Family-Controlled Firms

The application of UK corporate governance principles becomes particularly complex in family-controlled firms, where unlike in traditional agency relationships, family firms are characterised by concentrated influence and long-term orientation

(Anderson and Reeb, 2003; Villalonga and Amit, 2006). While the "comply or explain" framework provides flexibility for all companies, family firms face unique governance challenges in balancing family interests with broader stakeholder expectations (Gómez-Mejía et al., 2007; Miller and Le Breton-Miller, 2006). The involvement of family members in governance roles, can fundamentally alter how governance mechanisms operate in practice (Dibrell, Gamble, Clinton and Sherlock, 2024; Schulze et al., 2001). This becomes important in strategic financial decisions, where family firms must create a balance between preserving family-related goals and adhering to the transparency and accountability standards as directed by the UK Corporate Governance Code (FRC, 2024; Gómez-Mejía et al., 2007).

2.4 Family Firms: Context, Relevance, Features & Governance Implication

2.4.1 Global Context and Historical Significance

Family businesses are one of the oldest forms of business in the world, with the first structured family businesses dating back to the preindustrial period and representing the largest proportion during the industrial revolution of the 18th and 19th century (Ingram & Glód, 2018; Colli, 2003). The prevalence and relevance of family business is deeply rooted in history and the present, from being a major contributor to the industrial revolution to still being the backbone of the global economy in the 21st century. In today's global economy, family business is said to have been responsible for two out of every three businesses worldwide, thereby accounting for more than 70% of the world's output in terms of the globe's total monetary value annually (DeMasis, Frattini, Majocchi and Pistello, 2018). To put this into perspective, the top 500 global family firms attained revenue of \$8.02 trillion in 2022, employing over 24 million people across the globe. This feat would have put them behind only the United States and China if they were to be a sovereign nation (Robertsson, Zellweger and Klein, 2023).

2.4.2 UK Family Firms: Economic Dominance and Characteristics

The global dominance of family firms is also evident in the UK, which presents a microcosm of this worldwide phenomenon. Family-owned businesses represent a dominant force in the UK economy, accounting for approximately 86% of all UK businesses in 2020 and employing over half of the country's workforce (Saxon, Shafat and Desai, 2022; Institute for Family Business, 2022). Their economic weight is substantial, contributing up to £637 billion to the economy and providing over one-quarter of the government's total tax receipts. Their diversity is equally impressive, ranging from small local enterprises to globally recognised brands operating across multiple sectors of the UK economy (Family Business Research Foundation, 2025).

Family firms in the UK comprise both private and public companies, with private firms representing an overwhelming proportion. Evidence from the largest UK family firms revealed that fewer than 5% (only fourteen of three hundred and eight firms) are publicly quoted on the London Stock Exchange (IFB Research Foundation, 2020). A probable reason for this disproportionate distribution is that private companies tend to have less stringent rules, regulations and requirements that guide their reporting, governance and overall direction compared to public companies quoted on the London Stock Exchange (De Jong, 2016). These reduced regulatory constraints provide family-controlled firms with greater flexibility to structure and govern their organizations in ways that supports the achievement of family-specific goals and objectives.

2.4.3 Defining Features and Governance Implications

One of the defining features of family firms is the intertwining of family and business objectives (Fernández-Aráoz, Iqbal, Ritter, and Sadowski, 2019). This dual identity can create unique governance dynamics not typically found in non-family firms. Like family firms worldwide, UK family firms are characterised by one or more combinations of family ownership, family involvement in business operations, and representation in governance structures, ultimately differentiating them from non-

family firms (Sanchez-Marin et al., 2016; Steijvers and Niskanen, 2014). However, while family firms in most parts of Europe such as Italy and Germany exhibit overwhelmingly high levels of ownership proportion, UK family firms are characterised by comparatively lower ownership levels (Botero, Cruz, De Massis, and Nordqvist, 2015). UK family firms generally prioritise control of the company by securing more representation on the board rather than pursuing overwhelming shareholding capacity (Franks, Mayer, and Rossi, 2009). Family firms are also characterised by a long-term orientation, emotional investment, and legacy-driven decision-making, alongside structural characteristics like concentrated ownership, generational succession, and overlapping managerial roles (Miller and Le Breton-Miller, 2006; Astrachan et al., 2021). These features have implications for the how these firms' approach both strategic financial decisions and risk, including those related to taxation.

At the governance level, family firms are characterised by family-dominated boards or heavily influenced by informal family control (Astrachan et al., 2021; Villalonga and Amit, 2006; Anderson and Reeb, 2004). This structure enables cohesion and rapid decision-making, particularly where trust and shared goals are strong (Anderson and Reeb, 2004; Astrachan et al., 2021). However, it may limit board independence and other oversight mechanisms, raising concerns about accountability (Villalonga and Amit, 2006). Family firms have also been found to avoid external financing and public scrutiny, which may weaken compliance pressures compared to publicly listed firms (Carbone, Campopiano, Cirillo, and Mussolino, 2024; Hansen and Block, 2021; Gómez-Mejía et al., 2001). However, this tendency may be different for family businesses transitioning to the second or third generation or aiming for long-term growth, as they often actively pursue legitimacy and reputational capital (Campopiano and De Massis, 2015; Deephouse and Jaskiewicz, 2013). These tendencies influence governance practices in ways that may encourage ethical stewardship or, conversely, enable opportunism, depending on the

internal culture and extent of public accountability (Miller and Le Breton-Miller, 2006; Le Breton-Miller and Miller, 2009).

Despite the global influence of family firms, particularly the UK economy, they have historically received limited attention in mainstream tax avoidance studies compared to other firm typologies (Steijvers and Niskanen, 2014; Chen et al., 2010). The distinctive features of family firms - including concentrated ownership, emotional attachment, long-term orientation, and significant family influence over strategic decisions - make them differ from other forms of business (Miller and Le Breton-Miller, 2006; Gómez-Mejía et al., 2007). These variations result in diverse approaches to strategic decision-making and risk management (Anderson and Reeb, 2003; Schulze et al., 2001; 2003). In the context of tax avoidance, these differences may determine whether the firms adopt conservative or aggressive strategies, and influence how governance mechanisms moderate such behaviours (Sanchez-Marin et al., 2016). Consequently, family firms provide a valuable context for examining how corporate governance mechanisms and family influence interact to shape tax strategies, offering insights beyond conventional corporate models focused on dispersed ownership structures.

3. Literature Review and Theoretical Framework

3.1 Introduction

This chapter presents a comprehensive review of the theoretical foundations and empirical literature that underpin this research on corporate governance, family influence, and tax avoidance in UK family firms. Building on the institutional background established in Chapter 2, which outlined the UK's evolving tax policy environment and corporate governance framework, this chapter delves into the theoretical mechanisms and empirical evidence that explain how these institutional factors interact with family firm characteristics to shape tax avoidance behaviours.

The chapter is organized into five main sections, building the conceptual framework for the empirical investigations that follow. The literature review encompasses foundational theoretical works from the 1970s onwards and empirical studies primarily from 1990 to 2024, focusing on peer-reviewed articles from relevant finance, accounting, business and management journals, with particular emphasis on research examining corporate governance mechanisms, family firm characteristics, and tax avoidance behaviours in developed and developing economy contexts.

The chapter begins by establishing the theoretical foundations in Section 3.2, drawing primarily on agency theory and socio-emotional wealth (SEW) theory to explain the complex relationships between governance mechanisms, family influence, and tax avoidance behaviours. These theoretical frameworks are particularly relevant given the UK's "comply or explain" governance environment and the significant role of family firms in the UK economy (contributing £637 billion annually as established in Chapter 2). The integration of these theories provides a comprehensive lens for understanding why family firms may exhibit different tax avoidance patterns compared to widely held firms and how governance mechanisms may operate differently in family contexts.

Following the theoretical foundation, Section 3.3 reviews the empirical literature on corporate governance and tax avoidance, with particular attention to family firm

contexts. This review systematically examines evidence on board characteristics, audit quality, management compensation, and regulatory mechanisms, highlighting both convergent and contradictory findings across different institutional settings. Special attention is given to studies that examine the interaction between governance mechanisms and family-specific attributes, as these provide the most relevant insights for the current research.

Section 3.4 synthesizes key findings from international studies and identifies gaps in the current understanding, particularly regarding the UK institutional setting. A systematic synthesis of this literature organizes evidence across developed economies, developing economies, and the UK context, revealing a significant gap in UK-specific research on family firm tax avoidance behaviours. This gap is particularly notable given the unique characteristics of UK family firms (such as their preference for board control over ownership concentration) and the distinctive features of the UK's governance and tax regulatory environment.

Section 3.5 develops the research hypotheses based on the theoretical framework and empirical evidence, presenting twelve hypotheses that examine how various governance mechanisms influence tax avoidance in family firms. Finally, the chapter concludes by positioning this research within the broader literature and justifying the theoretical framework adopted for the empirical analyses.

By integrating these theoretical perspectives and empirical insights, this chapter establishes the foundation for understanding how governance mechanisms and family influence interact to shape tax avoidance behaviours in UK family firms, setting the stage for the empirical investigations presented in subsequent chapters.

3.2 Theoretical Framework

3.2.1 Agency Theory and Tax Avoidance

Agency theory, rooted in the seminal work of Jensen and Meckling (1976), provides a fundamental lens for understanding corporate governance and tax avoidance relationships. The theory centres on the separation of ownership and control,

highlighting conflicts that arise when managers (agents) may not act in the best interests of shareholders (principals) due to divergent objectives and information asymmetries.

In the context of tax avoidance, agency theory suggests that shareholders generally prefer higher levels of tax avoidance due to the expected financial benefits, particularly when they hold diversified portfolios that reduce their exposure to firm-specific risks (Demski & Feltham, 1978; Minnick & Noga, 2010). Dispersed shareholders typically lack the resources and incentives to monitor individual firms closely, making them less concerned about the potential costs and consequences of aggressive tax strategies (Fama, 1980).

However, managers may have different preferences regarding tax avoidance. While some managers might pursue aggressive tax strategies to demonstrate value creation and maximize compensation tied to after-tax performance metrics, others may avoid such strategies due to personal reputation concerns, risk aversion, or the complexity of implementation (Hanlon & Heitzman, 2010). This divergence creates a Type I agency problem where managerial actions may not align with shareholder preferences for tax minimization.

The UK institutional context adds nuance to these agency relationships. The "comply or explain" approach to corporate governance, established through the UK Corporate Governance Code, creates flexibility in governance structures while maintaining accountability through disclosure requirements (FRC, 2018). This framework influences how agency conflicts manifest and are resolved in UK firms, particularly regarding tax planning decisions that require board oversight and approval.

Furthermore, agency theory predicts that governance mechanisms such as board independence, audit quality, and compensation structures can help align manager-shareholder interests regarding tax avoidance. Independent directors, for instance, may provide oversight that ensures tax strategies serve shareholder interests while

managing associated risks. However, the effectiveness of these mechanisms depends on the specific institutional and firm-level contexts in which they operate.

Why Agency Theory?

Agency theory provides the foundational framework for understanding corporate governance mechanisms and their role in addressing conflicts of interest within firms. The theory is particularly relevant to this research for several reasons. Firstly, agency theory offers established explanations for how governance mechanisms function to align interests between principals (shareholders) and agents (managers), which is fundamental to understanding tax avoidance decisions (Armstrong et al., 2015; Chen et al., 2010; Fama and Jensen, 1983). Tax strategies generally involve agency considerations as managers must balance shareholder wealth maximization with personal risk exposure and regulatory compliance (Jensen & Meckling, 1976; Desai & Dharmapala, 2006). In addition, the theory also provides insights into the unique agency configurations in family firms. While traditional agency theory focuses on the principal-agent conflict in widely held firms, it also illuminates the principal-principal conflicts (Type II agency problems) that are prevalent in family firms, where controlling family shareholders may expropriate minority shareholders (Villalonga & Amit, 2006). This is particularly relevant for tax avoidance decisions, where the benefits and risks may be unevenly distributed between family and non-family shareholders (Chen et al., 2010; Desai and Dharmapala, 2006). Finally, agency theory offers testable predictions about how specific governance mechanisms (board independence, audit quality, compensation structures) influence firm behaviour (Shleifer & Vishny, 1997; Eisenhardt, 1989), providing a structured approach to hypothesis development. The theory's emphasis on monitoring and incentive alignment mechanisms directly relates to how firms approach tax planning and compliance (Armstrong et al., 2015; Minnick & Noga, 2010; Badertscher, Katz and Rego, 2013).

3.2.2 Socio-Emotional Wealth Theory and Family Firms

While agency theory provides insights into governance-tax relationships in widely held firms, understanding family firm behaviour requires consideration of non-financial motivations. Socio-emotional wealth (SEW) theory, developed by Gómez-Mejía et al. (2007) and refined by Berrone, Cruz, Gómez-Mejía and Larraza-Kintana (2012), posits that family firms prioritize the preservation of socio-emotional endowments that arise from family control and identification with the firm. Berrone et al. (2012) noted that SEW encompasses five key dimensions that influence family firm decision-making:

1. **Family control and influence:** The ability to exercise authority and control over strategic decisions
2. **Family identification with the firm:** The close association between family identity and firm reputation
3. **Binding social ties:** Relationships and social capital within the family business network
4. **Emotional attachment:** The affective value family members derive from firm ownership
5. **Renewal of family bonds through succession:** The intention to pass the business to future generations

These SEW considerations fundamentally alter how family firms approach tax avoidance decisions. Unlike diversified shareholders who primarily focus on financial returns, family owners must balance potential tax savings against threats to SEW preservation. Aggressive tax avoidance strategies may jeopardize family reputation, attract regulatory scrutiny that threatens family control, or damage relationships with stakeholders important to long-term family business success (Chen et al., 2010).

The preservation of family reputation emerges as particularly salient in tax avoidance decisions. Family firms often carry the family name and serve as symbols of family achievement and legacy. Reputational damage from aggressive tax avoidance could extend beyond the business to affect family members personally and persist across generations (Casson, 1999). This creates a strong incentive for conservative tax behaviour, especially in contexts where tax avoidance is viewed negatively by society.

Additionally, family firms' long-term orientation, driven by intentions of intergenerational succession, influences tax strategy choices. While non-family firms may focus on short-term tax savings to boost quarterly earnings, family firms consider the long-term implications of tax strategies on business sustainability and family wealth preservation (Berrone et al., 2012). This temporal perspective makes family firms more cautious about tax strategies that could trigger future liabilities or regulatory changes (Chen et al., 2010).

Why Socio-Emotional Wealth (SEW) Theory?

While agency theory provides crucial insights into the economic incentives and governance mechanisms, it cannot fully explain family firm behaviour, which is often driven by non-economic considerations. SEW theory fills this gap by recognizing that family firms prioritize the preservation of socio-emotional wealth—the non-financial aspects of the firm that meet the family's affective needs (Gómez-Mejía et al., 2007; Berrone et al., 2012). The selection of SEW theory is justified by several reasons. Firstly, empirical evidence consistently shows that family firms exhibit different tax avoidance patterns compared to non-family firms, suggesting that traditional economic theories alone are insufficient (Chen et al., 2010; Steijvers & Niskanen, 2014). SEW theory explains these differences by highlighting how family firms weigh reputational concerns, family legacy, and long-term family control against potential financial gains from tax avoidance (Chen et al., 2010; Berrone et al., 2010; Gómez-Mejía, Núñez-Nickel, M. and Gutierrez, 2001; Steijvers & Niskanen, 2014). Additionally, SEW theory captures the multidimensional nature of family firm objectives, including family control and influence, family identification with the firm,

binding social ties, emotional attachment, and renewal of family bonds through succession (Berrone et al., 2012). These dimensions directly influence strategic decisions, including tax planning, in ways that purely economic theories are unable to predict. Lastly, the theory is particularly relevant in the UK context, characterized by high shareholder protection and an efficient 'comply or explain' governance framework that emphasizes transparency (FRC, 2018; Poutziouris, Savva, Hadjielias, 2015). Research on UK listed firms shows that family involvement through board representation is positively associated with long-term performance (Poutziouris et al., 2015). In such transparent governance environments, reputational concerns become more pronounced as corporate decisions face greater scrutiny (Chen et al., 2010; Steijvers & Niskanen, 2014), making the preservation of family influence and reputation a critical consideration in tax decisions.

3.2.3 Theoretical Integration: A Comparative Framework

The integration of agency theory and SEW theory provides a comprehensive framework for understanding how governance mechanisms influence tax avoidance differently in family versus non-family firms. This theoretical synthesis recognizes that while agency conflicts exist in both firm types, their nature and resolution differ substantially due to family-specific considerations.

In non-family firms, the primary agency conflict regarding tax avoidance occurs between dispersed shareholders who prefer tax minimization and managers who may have different risk preferences. Governance mechanisms function primarily to align these interests through monitoring and incentive structures. The effectiveness of these mechanisms depends on their ability to overcome information asymmetries and provide appropriate oversight of complex tax strategies.

In family firms, the agency landscape is more complex. While Type I agency conflicts between family owners and professional managers may exist, Type II agency conflicts between family and minority shareholders often dominate (Villalonga & Amit, 2006). Family owners may use their control to pursue tax strategies that serve

family interests, which may not always align with minority shareholder wealth maximization. However, SEW considerations often moderate these tendencies, leading family firms toward more conservative tax positions despite their ability to pursue aggressive strategies.

The integration of agency theory and SEW theory is essential because neither theory alone can fully explain family firm tax avoidance behaviour (Chua, Chrisman and Steier, 2003; Le Breton-Miller, Miller and Lester, 2011; Miller and Le Breton-Miller, 2014). Agency theory effectively explains governance mechanisms and financial motivations but fails to account for non-economic goals that drive family firms (Schulze et al., 2001; Chrisman, Chua, and Sharma, 2005). SEW theory captures these non-financial motivations but does not adequately address the governance structures that constrain or enable tax strategies (Berrone et al., 2012; Gómez-Mejía, Cruz, Berone and De Castro, 2011). Only by combining both perspectives can we understand how family firms balance financial benefits of tax avoidance against threats to socio-emotional wealth (Chen et al., 2010), and how governance mechanisms operate differently when family-specific goals are present (Carney, 2005; Miller and Le Breton-Miller, 2014).

The role of governance mechanisms also differs between firm types. In non-family firms, governance mechanisms primarily serve monitoring and alignment functions. In family firms, these same mechanisms must navigate the dual objectives of financial performance and SEW preservation. For instance, independent directors in family firms must balance their fiduciary duties to all shareholders with recognition of legitimate family interests in reputation and control preservation.

This comparative framework generates several important predictions:

1. **Varying Governance Effectiveness:** Governance mechanisms that effectively constrain tax avoidance in non-family firms may be less effective in family firms where family control can override formal governance structures.

2. **Context-Dependent Relationships:** The relationship between specific governance characteristics (e.g., board independence, audit quality) and tax avoidance will vary between family and non-family firms due to different underlying motivations and constraints.
3. **Moderating Role of Family Influence:** Within family firms, the level of family influence (through ownership, board representation, and management involvement) will moderate how governance mechanisms affect tax avoidance decisions.

This theoretical integration provides the foundation for developing specific hypotheses about how various governance mechanisms influence tax avoidance in family firms compared to non-family firms, accounting for both financial and non-financial motivations that drive firm behaviour.

3.2.4 Multi-Theoretical Framework

Resource dependence theory (Pfeffer & Salancik, 1978) complements this by explaining how boards provide external connections and legitimacy that can facilitate tax planning strategies (Boyd, 1990; Hillman, Withers and Collins, 2009). Stakeholder theory (Freeman, 1984) illuminates how board diversity influences the consideration of multiple constituents in tax decisions (Harrison, Boose and Phillips, 2010; Post, Rahman, and Rubow, 2011), explaining why gender diversity (H4, H8, H12) might lead to optimal rather than minimal tax avoidance (Bear, Rahman and Post, 2010; Byron & Post, 2016).

Together, these six theories provide a comprehensive framework for understanding the nuanced relationships between governance, family influence, and tax avoidance. This multi-theoretical approach recognizes that governance mechanisms serve multiple functions: monitoring (agency theory), providing resources and capabilities (resource-based theory), offering external connections (resource dependence theory), representing stakeholder interests (stakeholder theory), while being

moderated by family-specific considerations (SEW theory) (Chrisman et al., 2005; Le Breton-Miller & Miller, 2013).

While agency theory and SEW theory provide the primary theoretical foundation for this research, the complex nature of governance mechanisms requires additional theoretical perspectives. Resource-based theory (Barney, 1991) views governance mechanisms as valuable resources that provide expertise and capabilities beyond mere monitoring (Hillman & Dalziel, 2003; Haynes & Hillman, 2010). This perspective is particularly relevant for understanding how board financial expertise (H3) and audit committee resources (H9) facilitate strategic tax planning through specialized knowledge and capabilities (Habbershon & Williams, 1999; Sirmon & Hitt, 2003).

Resource dependence theory (Pfeffer & Salancik, 1978) complements this by explaining how boards provide external connections and legitimacy that can facilitate tax planning strategies (Boyd, 1990; Hillman et al., 2009). Upper echelons theory (Hambrick & Mason, 1984) illuminates how manager and director characteristics, including demographics and professional backgrounds, shape strategic decisions including tax planning (Carpenter, Geletkanycz, and Sanders, 2004; Nielsen, 2010). This perspective explains why gender diversity (H4, H8, H12) and financial expertise (H3) influence tax avoidance through different decision-making styles and risk preferences (Plöckinger, Aschauer, Hiebl, and Rohatschek, 2016).

Institutional theory (DiMaggio & Powell, 1983) provides insights into how formal governance structures and regulatory compliance mechanisms shape organisational behaviour (Scott, 2008; Greenwood, Oliver, Sahlin and Suddaby, 2011). This theory is particularly relevant for understanding how audit charters (H10) and the UK's "comply or explain" governance framework create institutional pressures that influence tax strategies (Cheffins, 2015).

Together, these theories provide a comprehensive framework for understanding the nuanced relationships between governance, family influence, and tax avoidance. This

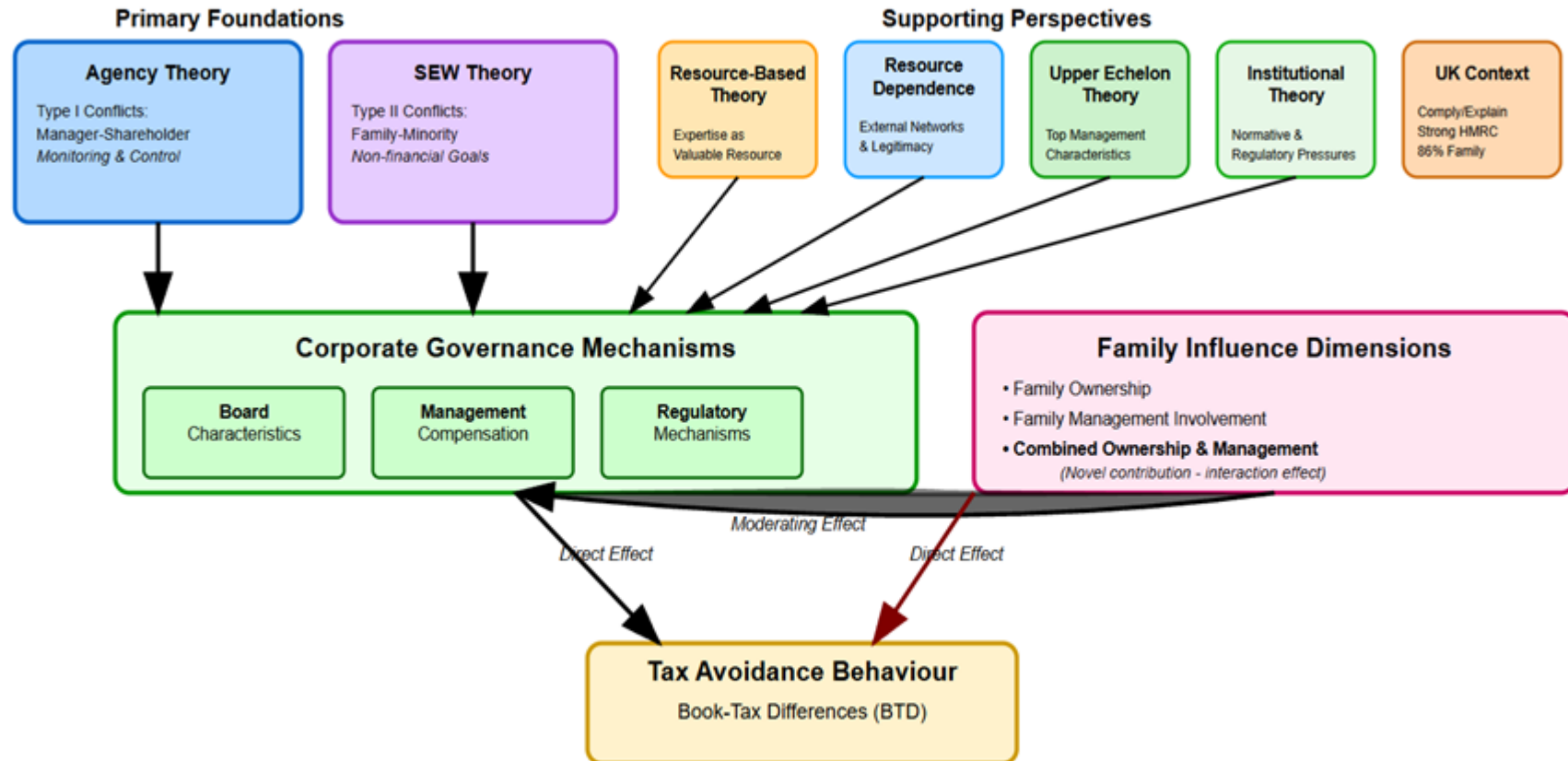
multi-theoretical approach recognises that governance mechanisms serve multiple functions: monitoring (agency theory), providing resources and capabilities (resource-based theory), offering external connections (resource dependence theory), shaping decisions through manager characteristics (upper echelons theory), ensuring institutional compliance (institutional theory), whilst being moderated by family-specific considerations (SEW theory) (Chrisman et al., 2005; Le Breton-Miller & Miller, 2013).

While the highlighted theories provide comprehensive understanding of governance-family influence relationships, contingency theory offers an additional lens for examining when and how these relationships vary under different conditions (Donaldson, 2001; Fiedler, 1967). Contingency theory posits that organizational effectiveness depends on the fit between organizational characteristics and situational factors, suggesting that governance mechanism effectiveness may be contingent on family influence levels and types (García-Meca, López-Iturriaga and Santana-Martín, 2022; López-González, Martínez-Ferrero and García-Meca, 2019). This perspective becomes particularly relevant for understanding moderation effects, where family influence may alter the conditions under which governance mechanisms operate effectively (Lawrence & Lorsch, 1967). The integration of contingency theory with the established multi-theoretical framework provides the foundation for examining conditional relationships in subsequent empirical analysis

Figure 3.1 presents the integrated theoretical framework that guides this research. The framework illustrates how agency theory and SEW theory operate within the UK institutional context to shape the relationships between corporate governance mechanisms, family influence, and tax avoidance behaviour. The framework shows three key relationships: (1) the direct effect of governance mechanisms on tax avoidance, (2) the direct effect of family influence on tax avoidance, and (3) the moderating effect of family influence on the governance-tax avoidance relationship. This integrated perspective recognizes that governance mechanisms operate

differently in family firms due to the interaction between financial objectives (agency theory) and non-financial objectives (SEW theory).

Figure 3.1: Integrated Multi-Theoretical Framework for Corporate Governance, Family Influence, and Tax Avoidance



Source: Author's conceptualisation

3.3 Empirical Literature Review

3.3.1 Corporate Governance and Tax Avoidance

The relationship between corporate governance mechanisms and tax avoidance has been extensively studied, with research examining various governance dimensions including board composition, audit quality, and management compensation structures. However, the literature presents mixed findings, highlighting the complexity of these relationships and their sensitivity to institutional contexts.

Board Composition and Independence

Board independence has been a central focus in governance-tax avoidance research, with mixed empirical findings reflecting the theoretical ambiguity in this relationship. Richardson, Taylor and Lanis (2013) examined Australian firms and found that greater board independence was associated with lower levels of tax aggressiveness, measured through effective tax rates and book-tax differences. They argued that independent directors provide more effective monitoring and are more likely to constrain risky tax strategies that could damage firm reputation. Similarly, Lanis and Richardson (2011) found that firms with a higher proportion of independent directors exhibited less aggressive tax avoidance behaviour, suggesting that independent oversight serves shareholder interests by avoiding excessive tax risks.

However, contrasting evidence suggests that board independence may facilitate tax avoidance under certain conditions. Minnick and Noga (2010) found that firms with more independent boards engaged in greater tax planning activities, arguing that independent directors with financial expertise might better appreciate the value creation potential of legitimate tax planning strategies. They suggested that independent directors, particularly those with relevant expertise, could provide the knowledge and legitimacy needed to pursue complex but legal tax minimization strategies.

The UK context adds additional complexity to these relationships. Under the UK Corporate Governance Code's "comply or explain" framework, firms have flexibility

in structuring their boards while maintaining accountability by explain the reason for non-compliance (FRC, 2018). This creates variation in how independence is implemented and may influence its effectiveness in overseeing tax strategies. The emphasis on board effectiveness rather than mere compliance in the UK may mean that the quality of independent directors matters more than their proportion on the board.

Board Size Effects

The impact of board size on tax avoidance remains contentious in the literature. Jensen (1993) argued that board composition is critical for effective CEO control, suggesting that smaller boards exercise more effective oversight while larger boards become disorganised and less effective, leading to increased agency problems. This perspective suggests that smaller boards might be more effective at monitoring and controlling aggressive tax strategies.

Empirical evidence on board size effects on tax avoidance with is notably mixed with varying results reported across different countries and settings (Kovermann and Velte, 2019). Using Tehran-listed firms, Hoseini, Safari and Valiyan (2019) found that companies with larger boards were associated with more tax avoidance, arguing that larger boards bring more diverse expertise that can facilitate tax planning. Conversely, Halioui, Neifar & Ben-Abdelaziz, (2016), reported negative association, opining that larger boards enhance oversight, therefore reducing tax avoidance among NASDAQ-100 firms. For U.S. firms, Minnick and Noga (2010) reported a statistically significant but economically small effect of board size on long-run tax management, while several studies (e.g. Jamei, 2017, Tehran; Omesì & Appah, 2021, Nigeria) found no effect. Taken together, optimal board size appears to be highly context-dependent and varies across firms based on their complexity, size, and governance needs (Boone, Field, Karpoff and Raheja, 2007). In the UK context, where firms face complex tax regulations and international tax planning opportunities, board size effects may depend on whether additional directors bring

relevant expertise or merely add to coordination and free-rider problems (Jensen, 1993).

Financial Expertise and Gender Diversity

Aside independence and size, the financial expertise of board members represents another governance mechanism that could potentially impact tax avoidance decisions. (Huang and Zhang, 2020; Hsu, Moore and Neubaum, 2018, Taylor and Richardson, 2014; Robinson, Xue and Zhang, 2012). Some of these submissions are based on the opinions that directors with financial backgrounds may be better equipped to understand complex tax strategies and evaluate their risks and benefits. Taylor and Richardson (2014) found evidence of a positive association between tax avoidance and directors with tax expertise, suggesting that specialized knowledge facilitates tax planning. Huang and Zhang (2020) similarly found that CEO financial expertise was associated with more tax planning activities, particularly in complex tax environments.

Hsu et al. (2018) however, presented contrasting evidence, finding that financial expertise on the board was associated with less aggressive tax avoidance. They argued that financially sophisticated directors better understand the risks associated with aggressive tax positions and exercise their monitoring role to constrain excessive tax avoidance. This suggests that the effect of financial expertise may depend on whether directors view their role primarily as monitors or advisors.

Gender diversity on boards has received increasing attention in corporate governance research, with studies examining whether female board representation influences tax avoidance behaviours. The literature generally finds that greater female board representation is associated with less aggressive tax avoidance. Francis, Hasan, Wu and Yan (2014) found that firms with female CFOs exhibited lower tax aggressiveness, attributing this to gender differences in risk preferences. Boussaidi and Hamed (2015) found similar results for board gender diversity, suggesting that

female directors bring different perspectives that lead to more conservative tax strategies.

These findings align with broader literature on gender diversity in corporate governance, which suggests that diverse boards make more balanced decisions and are less likely to pursue extreme strategies (Adams & Ferreira, 2009). In the UK context, where gender diversity on boards has been a policy focus through initiatives like the Davies Review and Hampton-Alexander Review, understanding how diversity affects tax strategies has important policy implications, particularly for family firms.

Audit Quality and Independence

The role of audit quality in constraining tax avoidance has received considerable attention, with research examining both external audit characteristics and internal audit functions (Kovermann and Velte, 2019; Hogan and Noga, 2015). High-quality audits, typically associated with Big Four audit firms, are generally found to constrain aggressive tax avoidance due to auditors' concerns about reputational damage and litigation risk (Gaaya, et al., 2017; Klassen, Lisowsky and Mescall, 2016).

Klassen et al. (2016) found that firms audited by Big Four firms exhibited less tax avoidance, measured through lower book-tax differences and less volatile tax rates. They argued that high-quality auditors have stronger incentives to constrain aggressive tax positions that could lead to financial restatements or regulatory scrutiny. Gaaya et al. (2017) found similar results in the Tunisia context, with Big Four auditors associated with higher effective tax rates, suggesting more conservative tax avoidance tendencies.

The importance of auditor independence in constraining tax avoidance has also been examined in addition to audit quality. Prior studies opine that when auditors provide significant non-audit services, their independence may be compromised, potentially affecting their willingness to challenge aggressive tax positions. Hogan and Noga (2015) found that the proportion of non-audit fees was positively associated with

tax avoidance levels, suggesting that economic dependence on clients may impair auditor objectivity regarding tax strategies.

In the UK, where audit regulation has been strengthened following various corporate scandals (FRC, 2018b) and the audit market is under Competition and Markets Authority review (CMA 2019), understanding how audit quality affects tax avoidance is particularly relevant. The UK's implementation of EU audit reforms, including mandatory audit rotation and restrictions on non-audit services (ICAEW, 2017) may have implications for how audit quality influences corporate tax strategies.

Management Compensation Structures

Executive compensation structures have been identified as important governance mechanisms that can influence tax avoidance behaviour (Huang, Ying and Shen, 2018; Halioui, et al., 2016; Minnick & Noga, 2010; Gaertner, 2014; Rego & Wilson, 2012; Crocker and Slemrod, 2005; Phillip, 2003). The underlying rationale lies in the notion that compensation design affects managerial incentives regarding tax planning (Xian, Sun and Zhang, 2015). Research in this area has produced mixed findings, reflecting the complex ways compensation can influence tax decisions.

Gaertner (2014) found that firms with higher levels of equity-based compensation exhibited lower cash effective tax rates, suggesting that equity incentives encourage tax planning that increases after-tax earnings and share values. Armstrong et al. (2015) found more refined results, showing positive associations between equity compensation and tax avoidance in firms with low initial levels of tax avoidance, but negative associations in firms already engaging in substantial tax avoidance. This non-linear relationship suggests that compensation incentives interact with existing tax strategies and risk levels.

However, other studies have found contrasting results. Phillips (2003) found that business-unit managers compensated on an after-tax basis had lower effective tax rates, while executive officers showed no such relationship. Desai and Dharmapala (2006) argued that the complex nature of tax avoidance creates opportunities for

managerial rent extraction, finding that increases in equity compensation reduced tax avoidance in firms with poor governance.

The role of remuneration committees in designing compensation structures that appropriately incentivise tax strategies has received limited attention. In the UK context, where remuneration committees are required under the Corporate Governance Code (FRC, 2018, 2024) and face significant scrutiny from shareholders and proxy advisors (Stathopoulos, & Voulgaris, 2016; Ferri & Maber, 2013), understanding how these committees influence tax-related incentives is important. The emphasis on long-term value creation in UK governance may lead to different compensation-tax relationships than in more short-term oriented contexts.

3.3.2 Family Firms and Tax Avoidance

The literature on family firms and tax avoidance presents two primary theoretical perspectives that offer varying explanations for family firm tax behaviour, creating an ongoing debate about whether family firms are more or less likely to engage in tax avoidance compared to non-family firms.

Value-Maximizing Perspective

The first strand of literature views tax avoidance as a value-maximizing activity that increases family wealth through reduced tax burdens. This perspective suggests that family firms may be more motivated to engage in tax avoidance due to their concentrated ownership and ability to capture the benefits of tax savings directly.

Supporting the value maximisation perspective, Kovermann and Wendt (2019) examined large German private firms and found that family ownership encouraged tax avoidance, with the relationship intensified by the level of family involvement in the business. They argued that concentrated family ownership provides both the incentive and ability to pursue tax strategies that might be difficult to implement in firms with dispersed ownership. The benefits of tax avoidance accrue directly to the family, while in widely held firms, managers may not fully capture these benefits.

Mafrolla and D'Amico (2016) found similar results in the Italian context, showing that family firms engaged in more tax planning activities. However, they also documented a non-linear relationship, where very high levels of family involvement began to constrain tax avoidance, suggesting that families balance tax benefits against other considerations. This non-linearity indicates that family influence on tax avoidance is varied and may depend on the extent of family control and involvement.

Gaaya et al. (2017) examined Tunisian firms and found that family ownership was associated with greater tax avoidance, particularly in contexts with weak investor protection. They argued that in such environments, families might use tax avoidance as one mechanism to extract private benefits at the expense of minority shareholders. This highlights how institutional contexts moderate the relationship between family ownership and tax behaviour.

This value-maximizing perspective aligns with concerns about Type II agency problems in family firms, where controlling families may pursue strategies that benefit them at the expense of minority shareholders (Villalonga & Amit, 2006). Tax avoidance might therefore represent one avenue through which families extract private benefits, particularly when tax savings can be diverted to family members through related-party transactions or other mechanisms (Desai and Dharmapala, 2006).

Conservative Perspective: SEW Preservation

The second strand of literature adopts a more conservative view of family firm tax behaviour, arguing that socio-emotional wealth considerations lead family firms to avoid aggressive tax strategies. This perspective emphasizes the non-financial costs of tax avoidance that are particularly critical for family firms (Shi, Hou and Gu, 2023; Chyz, Leung, Li and Rui, 2013; Hanlon and Slemrod, 2009).

Chen et al. (2010) provided evidence for this perspective, finding that family firms in the US exhibited less tax avoidance tendencies than non-family firms. They argued that family owners are more concerned about the potential consequences from

aggressive tax positions because these costs would be borne disproportionately by the family. The concentration of family wealth in the firm makes families more sensitive to firm-specific risks, including tax-related risks.

Steijvers and Niskanen (2014) found similar results in European private firms, showing that family firms had higher effective tax rates than non-family firms. They emphasized the importance of reputation concerns for family firms, particularly those carrying the family name. The potential for tax avoidance to damage family reputation across generations creates a strong deterrent for overly aggressive tax strategies.

The role of succession intentions in shaping tax behaviour has also been examined. Firms intending to pass the business to future generations may be particularly cautious about tax strategies that could create future liabilities or damage the business's standing with tax authorities and other stakeholders (Berrone et al., 2012). This long-term orientation contrasts with the shorter-term focus that might characterize non-family firms or family firms without succession intentions.

Recent studies have begun to examine how specific aspects of SEW influence tax decisions. For instance, family identification with the firm appears to be a particularly important driver of conservative tax behaviour. When the family name is closely associated with the business, the reputational risks of aggressive tax avoidance extend beyond the business to affect family members personally (Du & Cao, 2023).

Contradictions and the UK Contextual Factors

Given the contradictory findings in the family firm tax avoidance literature, there has been an increasing need to examine contextual factors that might explain family firms' tendency to pursue value maximising versus conservative tax strategies. One of those factors includes the role of institutional environment (Kovermann and Wendt 2019). Institutional environment plays a crucial role. In countries with strong tax enforcement and high reputational costs for tax avoidance, family firms tend to be more conservative. However, in contexts with weak enforcement or where tax

avoidance is more socially acceptable, family firms may be more aggressive (Kovermann & Velte, 2019; Gayaa et al., 2017). The UK context, with its relatively strong tax enforcement through HMRC and high media attention to corporate tax avoidance, might push family firms toward more conservative strategies.

The level and nature of family involvement is also an important factor to be considered. While ownership concentration provides the ability to pursue tax strategies, active family management may constrain tax avoidance due to personal liability concerns and lack of specialized tax expertise (Mafrolla & D'Amico, 2016; Steijvers & Niskanen, 2014; Chen et al., 2010). Studies have found that the presence of family CEOs is often associated with less tax avoidance, while family ownership without management involvement may lead to more aggressive strategies (Shi et al., 2023).

Firm size and complexity influence may also influence the tendency of family firms' engagement in tax avoidance (Chen, et al., 2010; Richardson & Lanis, 2007; Rego, 2003; Mills, Erickson and Maydew, 1998). Larger family firms with more resources and sophisticated tax planning capabilities may engage in more tax avoidance, given that smaller family firms were found to lack the expertise or resources for complex tax strategies (Chen et al., 2010; Mills et al., 1998). Additionally, international operations may also provide more tax planning opportunities although that comes with an increased level of complexity and risk (Taylor and Richardson, 2012; Rego, 2003).

The presence and protection of minority shareholders may also affect family tax decisions. In contexts with strong minority shareholder protection, families may be constrained from pursuing tax strategies that could be seen as extracting private benefits (Chen et al., 2010; La Porta et al., 1999). However, where minority protection is weak, families may be more likely to use tax avoidance as a tool for private benefit extraction (Gaaya et al., 2017; Desai and Dharmapala, 2006).

3.3.3 Governance-Family Interaction Effects

A growing body of literature examines how family influence moderates the relationship between corporate governance mechanisms and tax avoidance. This research recognizes that governance mechanisms may operate differently in family firm contexts due to concentrated ownership, family-specific objectives, and unique agency relationships.

Board Independence in Family Firms

The effectiveness of independent directors in family firms has been questioned due to the ability of controlling families to influence director selection and retention. Anderson and Reeb (2004) found that the positive effects of board independence on firm performance were weaker in family firms, suggesting that family control may limit independent directors' effectiveness.

In the context of tax avoidance, the interaction between board independence and family control presents complex dynamics. While independent directors in non-family firms may effectively monitor and constrain aggressive tax strategies, their influence in family firms may be limited by family dominance in decision-making. Gaaya et al. (2017) found that board independence was less effective at constraining tax avoidance in family firms compared to non-family firms, particularly when families held both ownership and board control.

However, some studies suggest that independent directors can play important roles in family firms by providing expertise and legitimacy for tax strategies. Family firms may lack specialized tax knowledge, and independent directors with relevant expertise can facilitate legitimate tax planning while helping families avoid excessive risks. The key appears to be whether independent directors are truly independent and bring relevant expertise rather than serving as mere compliance fixtures.

Audit Quality and Family Influence

The interaction between audit quality and family influence in determining tax avoidance has received attention. High-quality auditors may be particularly important in family firms where internal governance mechanisms may be weaker due to family control. However, the effectiveness of external auditors may also be compromised if families use their influence to pressure auditors or threaten to switch auditors who challenge their tax positions.

Gaaya et al. (2017) found that Big Four auditors were more effective at constraining tax avoidance in family firms than in non-family firms, suggesting that high-quality external monitoring may partially substitute for weaker internal governance. This substitution effect may be particularly important in contexts where family control limits the effectiveness of internal governance mechanisms.

The long-term relationships that often characterize family firm-auditor relationships may have conflicting effects. On one hand, long tenure may compromise auditor independence. On the other hand, deep knowledge of the family firm's operations and objectives may help auditors provide more effective tax advice that balances tax savings with risk management.

Compensation Structures in Family Firms

The role of executive compensation in influencing tax avoidance may differ substantially between family and non-family firms. In family firms where executives are often family members, traditional agency theory predictions about compensation incentives may not apply. Family executives may be motivated by SEW preservation rather than compensation incentives, making performance-based pay less effective at encouraging tax planning.

For non-family executives in family firms, compensation design faces unique challenges. These executives must balance the interests of family owners who may have conservative tax preferences with their own incentives for performance. The presence of family monitoring may also reduce the need for high-powered incentive

compensation, leading to different compensation-tax relationships than in non-family firms.

Regulatory Mechanisms and Family Firms

The effectiveness of regulatory mechanisms such as tax authority enforcement and disclosure requirements may vary between family and non-family firms. Family firms' concern for reputation and long-term survival may make them more responsive to regulatory pressures. The personal nature of family wealth concentration means that tax penalties and reputational damage from tax disputes affect families more directly than dispersed shareholders.

However, family firms may also have advantages in managing regulatory relationships. Long-term orientation and stable ownership may facilitate better relationships with tax authorities and more cooperative compliance approaches. Family firms may be more likely to engage in transparent tax planning that avoids regulatory scrutiny rather than aggressive strategies that might trigger audits or disputes.

3.4 Literature Analysis and Research Gaps

This section presents the key findings from the literature to identify patterns, contradictions, and gaps that motivate the current research. The analysis is organized into three parts. First, Section 3.4.1 presents a systematic comparison of empirical studies across different economic contexts through a tabular analysis, revealing the geographic distribution of research and highlighting the lack of UK-specific evidence. Section 3.4.2 identifies and discusses six critical research gaps that emerge from this synthesis, ranging from geographic and institutional gaps to methodological limitations. Finally, Section 3.4.3 positions the current research within this landscape, demonstrating how this study addresses the identified gaps through its theoretical framework, empirical approach, and institutional focus.

The analysis reveals that while corporate governance and tax avoidance relationships have been extensively studied (Armstrong et al., 2015; Minnick & Noga, 2010;

Richardson et al., 2013), and family firm characteristics have received considerable attention (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Chen et al., 2010), the intersection of these areas, particularly how governance mechanisms operate differently in family firms to influence tax decisions, remains under-explored. Moreover, the UK context, despite its economic significance and unique institutional features, has received surprisingly little attention in family firm tax avoidance research, as demonstrated in Table 3.1. This synthesis thus establishes both the theoretical and empirical foundations for the current research while justifying its contribution to the literature.

3.4.1 Systematic Literature Analysis

To provide a comprehensive overview of the empirical evidence on corporate governance, family firms, and tax avoidance, Tables 3.1, 3.2 & 3.3 synthesizes key studies across different economic contexts. This synthesis reveals important patterns in the literature and highlights the significant gap in UK-specific research.

Table 3.1 Panel A: Key Studies on Family Firms, Corporate Governance, and Tax in Developed Economies

Study	Country / Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
Chen et al. (2010)	US (S&P 1500 firms)	Founding family ownership > 5%	Board independence, audit quality	Cash ETR, BTD	Family firms are less tax aggressive, suggesting socioemotional wealth (SEW) preservation influences behaviour.
Kovermann & Wendt (2019)	Germany (private firms)	Family ownership > 25%	Board independence, audit quality	Cash ETR	Non-linear relationship observed; governance mechanisms moderate tax outcomes.
Mafrolla & D'Amico (2016)	Italy (listed firms)	Family ownership > 5% with board role	Board characteristics, ownership	ETR	Family firms more actively engage in tax planning strategies.

Study	Country / Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
Steijvers & Niskanen (2014)	Belgium / Finland(private firms)	Family control > 50%	Board structure, ownership	ETR	Family firms tend to adopt more conservative tax strategies.
Bauweraerts & Vandernoot (2019)	Belgium (242 private family firms, 2012-2014)	Family CEO Presence	Family involvement in management & board characteristics	ETR, Cash ETR, BTD	Lower tax aggressiveness in: strong family-owned firms, family-founder firms, firms with family CFO, and family-named firms. Family CEOs influence tax strategies differently
Sánchez-Marín et al. (2016)	Spain (private firms)	Family ownership > 50%	Board composition, family involvement	ETR	Family firms adopt conservative tax strategies
Moore, Suh & Werner, 2017	USA	Founder's or Descendant holding position on board	Board Characteristics	ETR Variant	Family firm status is negatively associated with tax avoidance

Table 3.2 Panel B: Key Studies on Family Firms, Corporate Governance, and Tax in Developing Economies

Study	Country / Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
Shi et al. (2023)	China (A-share firms)	Founding family control	Board composition, ownership	Cash ETR	Family influence exhibits a non-linear effect on tax aggressiveness.
Gaaya et al. (2017)	Tunisia (listed firms)	Family ownership > 10%	Board independence, ownership	ETR	Family firms engage in MORE tax avoidance compared to non-family firms in Tunisia. Weak investor protection intensifies tax avoidance by family firms.

Study	Country / Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
García-Meca et al. (2021)	Latin America (various)	Family control threshold	Audit committees, board independence	ETR, BTD	Governance quality is critical in mitigating tax avoidance in weak institutional contexts.
Cao et al. (2023)	China (listed firms)	Family control > 20%	Board independence, audit committees	ETR, BTD	Family influence plays a moderating role between governance and tax outcomes.

Table 3.3 Panel C: Key Studies on Family Firms, Corporate Governance, and Tax in the UK Economy

Study	Country/Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
Research Gap	-	-	-	-	There is limited UK-specific evidence on the tax behaviour of family firms and how governance mechanisms influence these behaviours
Abdul Wahab & Holland (2012)	UK listed firms	Not specifically family firms	Board size, ownership structure	ETR	Found no significant effect of board size on tax avoidance; focused on general firms not family firms specifically
Poutziouris et al. (2015)	UK FTSE firms 1998-2008	Family ownership +	Board representation, family CEO	Firm performance (not tax)	Family governance positively associated with long-term

Study	Country/Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
		board presence			performance; no examination of tax behaviour
Current Study (2025)	UK FTSE firms 2007-2019	Family ownership >3% with at least 1 board presence	Comprehensive governance framework including board characteristics, management compensation, and regulatory mechanisms	BTD	1 First comprehensive examination of how corporate governance mechanisms influence tax avoidance in UK family firms, with analysis of moderating effects of family influence

Notes:

- BTD = Book-Tax Differences
- The table highlights the significant gap in UK-specific research on family firm tax avoidance
- Existing UK studies either: (a) examine tax without focusing on family firms, or (b) examine family firms without analysing tax behaviour
- This research fills this gap by providing the first comprehensive analysis of governance-tax relationships in UK family firms

Table 3.4 *Research Gap Synthesis*

Study	Country / Sample	Family Firm Definition	Corporate Governance Mechanisms	Tax Measure(s)	Key Findings
Research Gap	–	–	–	–	There is limited UK-specific evidence on the tax behaviour of family firms and how governance mechanisms influence these behaviours.
Current Study	UK (FTSE All-Share, 2007–2019)	Family ownership > 3% with board presence	Comprehensive internal governance framework	BTD, ETR	

Notes: ETR = Effective Tax Rate; Cash ETR = Cash Effective Tax Rate; BTD = Book-Tax Differences; CG = Corporate Governance

3.4.2 Identified Research Gaps

The literature synthesis reveals several important gaps that this research addresses:

- **Research Gap 1 - Geographic and Institutional Gaps**

The most striking finding from the synthesis is the lack of comprehensive studies examining family firm tax behaviour in the UK context. While studies exist for other developed economies such as the US (Chen et al., 2010), Germany (Kovermann & Wendt, 2019), the UK's unique institutional characteristics warrant dedicated investigation. The UK's "comply or explain" governance framework, combined with its strong tax enforcement regime and high media scrutiny of corporate tax avoidance, creates a distinctive context that may produce different relationships than those found in other countries.

- **Research Gap 2 - Theoretical Integration Gap**

Most existing studies rely on either agency theory or SEW theory in isolation (Chen et al., 2010; Kovermann & Velte, 2019). Few studies attempt to integrate these

theoretical perspectives to provide a more comprehensive understanding of family firm behaviour, despite calls for such integration (Madison, Holt, Kellermanns and Ranft, 2016; Schulze & Kellermanns, 2015; Zellweger and Kammerlander, 2015; Le Breton-Miller et al., 2011). This theoretical isolation limits understanding of how financial and non-financial motivations interact to shape tax decisions (Berrone et al., 2012; Chrisman, Chua, Pearson, and Barnett et al., 2012). This research addresses this gap by explicitly combining both theoretical frameworks to develop a more nuanced understanding of family firm tax behaviour, responding to the need for multi-theoretical approaches in family business research (Maddison et al., 2016; Gedajilovic, Carney, Chrisman, and Kellermanns, 2012; Gómez-Mejía et al., 2011).

- **Research Gap 3 - Governance Mechanism Comprehensiveness**

Numerous corporate governance studies focus on individual governance mechanisms rather than examining comprehensive governance systems (Kovermann & Velte, 2019; Hanlon & Heitzman, 2010). For instance, studies may examine board independence (Lanis & Richardson, 2011; Richardson et al., 2013) or audit quality (Gaaya et al., 2017) in isolation, missing important interactions between different governance mechanisms. While Azim (2012) categorized governance into market, internal, and regulatory mechanisms, most empirical studies examine these separately rather than as an integrated system. Even studies attempting broader coverage, such as Armstrong et al. (2015) or Minnick and Noga (2010), typically examine mechanisms sequentially rather than their interactive effects. This research addresses this gap by examining multiple governance dimensions simultaneously, including board characteristics, management compensation and regulatory mechanisms, thereby providing a more complete picture of how governance systems influence tax avoidance.

- **Research Gap 4 - Family Influence Operationalization**

Existing studies often use simple binary classifications of family versus non-family firms, missing the nuanced ways family influence manifests (Anderson & Reeb,

2003; Villalonga & Amit, 2006). Moreover, studies that do examine family influence dimensions typically analyse ownership concentration and management involvement as separate, independent variables (Mafrolla & D'Amico, 2016; Kovermann & Wendt, 2019), failing to capture how these dimensions interact. This approach overlooks the possibility that family influence represents a unique joint effect when families hold both ownership stakes and board positions simultaneously, rather than simply the additive sum of individual components. The literature lacks sophisticated operationalizations that capture varying degrees of family control and the interactive nature of different influence channels

- **Research Gap 5 - Methodological Rigor**

Similar prior studies, particularly in developing economy contexts, suffer from endogeneity concerns and limited robustness testing (Hanlon & Heitzman, 2010; Roberts & Whited, 2013). The potential for reverse causality between governance choices and tax outcomes (Armstrong et al., 2015; Wintoki, Linck and Netter, 2012), omitted variable bias arising from unobserved firm heterogeneity (Desai & Dharmapala, 2006), and measurement error in tax avoidance proxies threaten the validity of findings. While some studies acknowledge these concerns, many rely on simple OLS or fixed effects models that cannot adequately address dynamic endogeneity (Dyreng, Hanlon, Maydew and Thornock, 2010). This research employs advanced econometric techniques including system GMM and 2SLS estimation to address these methodological limitations and provide more robust causal inference, following best practices demonstrated in recent governance studies (Arellano & Bond, 1991; Blundell & Bond, 1998; Roodman, 2009; Wooldridge, 2010; Wintoki, Linck & Netter, 2012; Sikarwar, 2022).

- **Research Gap 6 - Dynamic Relationships**

A major problem in tax avoidance studies is the examination of static relationships between governance and tax avoidance, ignoring how these relationships may evolve over time (Hanlon & Heitzman, 2010; Dyreng, Hanlon and Maydew, 2008). Changes

in regulatory environments, governance reforms, and shifting social attitudes toward tax avoidance may alter these relationships (Wintoki et al., 2012). The UK context provides a particularly rich setting for examining dynamic relationships, given significant regulatory changes including the introduction of GAAR in 2013 (HM Treasury, 2013), Corporate Criminal Offences legislation in 2017 (HMRC, 2017), and evolving governance codes (FRC, 2010; 2014; 2018). Additionally, studies such as Sikka (2010) & Christensen and Murphy (2004) noted shifting social attitudes toward corporate tax avoidance, suggesting that static analysis may miss important variations. This research examines an extended period (2007-2019) that encompasses these significant regulatory changes and evolving social expectations, allowing for investigation of dynamic relationships that previous cross-sectional or short-period studies may have overlooked.

3.4.3 Positioning of Current Research

This research contributes to the literature by addressing the identified gaps through several key features:

UK Institutional Focus: This study provides, to the best of the researcher's knowledge the first comprehensive examination of governance-tax avoidance relationships in UK family firms. By focusing on the UK context, the research contributes to understanding how institutional factors shape these relationships and provides insights relevant to UK policy debates about corporate tax avoidance and governance effectiveness.

Theoretical Integration: This study primarily combines agency theory (Jensen & Meckling, 1976; Fama & Jensen, 1983) and SEW theory (Gómez-Mejía et al., 2007; Berrone et al., 2012) to provide a stronger understanding of family firm motivations and behaviours. The study also incorporates other relevant theories such as stakeholder theory (Freeman, 1984), resource-based theory (Barney, 1991; Habbershon & Williams, 1999), and resource dependence theory (Pfeffer & Salancik, 1978; Hillman et al., 2009) to support the research objectives. This multi-

theoretical integration follows calls for comprehensive theoretical frameworks in family firm research (Maddison et al., 2016; Gedajilovic, et al., 2012; Gómez-Mejía et al., 2011). This theoretical integration recognizes that family firms face unique agency conflicts and must balance financial and non-financial objectives in their tax decisions (Le Breton-Miller & Miller, 2013).

Comprehensive Governance Analysis: In contrast to numerous prior studies where individual governance mechanisms have been examined in isolation, this research adopted a comprehensive approach in examining corporate governance investigates and their interactions with tax avoidance. This comprehensive approach recognizes that governance operates as an integrated system rather than through individual mechanisms, and that the effectiveness of specific mechanisms may depend on the broader governance context (Azim 2012; Ward et al., 2009).

Family Influence Operationalization: Some of the previous studies have used simple binary classifications of family versus non-family firms, missing the nuanced ways family influence manifests (Anderson & Reeb, 2003; Villalonga & Amit, 2006). Additionally, studies that do examine family influence dimensions typically analyse ownership concentration and management involvement as separate, independent variables (Mafrolla & D'Amico, 2016; Kovermann & Wendt, 2019). This research makes a methodological contribution by measuring family influence as continuous proportions rather than binary classifications, capturing the varying degrees of family controls via family ownership and board presence. The study also examined the interaction between family ownership proportion and board presence as a combined measure of family influence. This operationalization recognizes that family influence represents a unique joint effect when families hold both ownership stakes and board positions simultaneously, rather than simply the sum of individual components. By testing this combined effect alongside the individual effects of ownership and board involvement, this research provides insights into how different configurations of family influence shape governance-tax relationships in family firms.

Econometric Methods: This research adopted one-step and two-step system GMM as the primary estimation methods to address endogeneity concerns and dynamic relationships in the governance-tax avoidance nexus (Blundell & Bond, 1998; Roodman, 2009). Fixed effects (FE) and random effects (RE) models serve as robustness checks to validate the consistency of key findings across different estimators, following best practices in tax avoidance research where robustness across multiple estimators is recommended (Hanlon & Heitzman, 2010; Wintoki et al., 2012).

Policy Relevance: This study provides insights for UK policymakers by examining governance-tax relationships during a period encompassing major regulatory reforms including GAAR (2013) and Corporate Criminal Offences legislation (2017). The findings inform ongoing debates about the effectiveness of the UK's "comply or explain" governance framework and contribute to understanding how family firms, representing 86% of UK private sector businesses, respond to tax enforcement strategies.

3.5 Hypothesis Development

Based on the theoretical framework and empirical evidence reviewed, this section develops eighteen hypotheses examining how corporate governance mechanisms influence tax avoidance in UK family firms. Drawing on the integrated theoretical perspective combining agency theory, SEW theory, and complementary insights from resource-based, resource dependence, and stakeholder theories, the hypotheses are organized into three governance dimensions: (1) board characteristics (H1-H4), examining how board independence, size, financial expertise, and gender diversity shape tax strategies; (2) management compensation mechanisms (H5-H8), exploring how remuneration structures and committee characteristics influence tax decisions; and (3) regulatory mechanisms (H9-H12), investigating the role of audit committees and external audit quality in tax avoidance behaviour. Each hypothesis considers varying effects between family and non-family firms, recognizing that governance mechanisms may operate differently in family

contexts due to unique agency relationships and the need to balance financial objectives with SEW preservation. Table 3.2 provides a summary of these hypotheses, their theoretical foundations, and expected relationships.

3.5.1 Board Characteristics

H₁: Board Independence and Tax Avoidance

The role of independent directors in influencing tax avoidance represents a fundamental governance question with competing theoretical predictions. Agency theory suggests that independent directors provide monitoring that aligns manager actions with shareholder interests. In the context of tax avoidance, this could lead to either more aggressive tax planning (if shareholders prefer tax minimization) or more conservative strategies (if independent directors prioritize risk management and reputation).

The empirical evidence on board independence and tax avoidance is mixed. Lanis and Richardson (2011, 2018) found that firms with more independent boards showed less tax avoidance, suggesting that independent directors constrain risky tax strategies. However, Minnick and Noga (2010) found that board independence facilitated tax planning, arguing that independent directors with relevant expertise support value-creating tax strategies.

In family firms, the effectiveness of independent directors may be compromised by family control over director selection and decision-making processes. However, independent directors may also provide valuable expertise and external legitimacy that family firms need for tax planning. Given the UK's emphasis on board effectiveness and the "comply or explain" framework that encourages meaningful independence rather than mere compliance, independent directors are expected to play a monitoring role that constrains excessive tax avoidance while supporting legitimate tax planning.

Therefore, the first hypothesis is:

H1: Board independence presents a negative relationship with tax avoidance, with the effect being weaker in family firms compared to non-family firms.

H₂: Board Size and Tax Avoidance

Board size represents another important governance characteristic with implications for tax strategy oversight. Larger boards bring more diverse expertise and perspectives but may suffer from coordination and free-riding problems that reduce their effectiveness (Jensen, 1993). Smaller boards may be more cohesive and decisive but may lack the diverse expertise needed to evaluate complex tax strategies.

The empirical evidence on board size effects is mixed and often weak with reported insignificant effect between board size and tax avoidance (Abdul Wahab & Holland, 2012; Minnick and Noga, 2010; Wintoki et al., 2010). While studies such as Abdulwahab et al., (2017) & Halilou et al., (2016) have found tax avoidance to be significantly influenced by the negative effect of board size, Hoseini et al., (2019) reported the presence of positive effect between both construct suggesting that more board members increase the tax avoidance due to greater amount of expertise.

In family firms, board size effects may differ due to the presence of family members on the board. Smaller boards in family firms may be dominated by family members, reducing board independence and effectiveness. However, smaller boards may also facilitate family consensus and decision-making (Jensen, 1993). Given that UK family firms may prefer board control over pure ownership control, board size may be particularly important in determining family influence over tax decisions.

Therefore, the second hypothesis is:

H2: Board size presents a negative relationship with tax avoidance, with varying effects in family and non-family firms.

H₃: Financial Expertise and Tax Avoidance

Directors with financial expertise bring specialized knowledge that can be valuable in evaluating tax strategies. Financial experts understand the complexities of tax law,

the risks and benefits of different tax positions, and the financial reporting implications of tax strategies (Lanis and Richardson, 2018; Hoseini, et al., 2019). This expertise can be used either to facilitate tax planning or to better monitor and constrain excessive tax risks (Abdelfattah and Aboud, 2020; Kovermann and Velte, 2019).

Recent studies provide mixed evidence on the role of financial expertise. Taylor and Richardson (2014) and Huang and Zhang (2020) found that financial expertise on boards was associated with more tax planning, suggesting that expertise facilitates tax avoidance. However, Hsu et al. (2018) found that financial expertise led to less aggressive tax positions, arguing that experts better understand associated risks.

In family firms, financial expertise may be particularly valuable given that family members may lack specialized tax knowledge. The perceived legitimacy and risk assessment capabilities of financial experts may provide family owners with confidence to engage in appropriate levels of tax planning while avoiding excessive risks. In the UK context, where tax regulations are complex and enforcement is relatively strict, financial expertise may be crucial for navigating tax planning opportunities while maintaining compliance.

Therefore, the third hypothesis is:

H3: Financial expertise on the board presents a positive relationship with tax avoidance with varying effects in family and non-family firms.

H4: Gender Diversity and Tax Avoidance

Gender diversity on boards has received increasing attention in corporate governance research and policy (Valsan, 2016). Female directors may bring different perspectives, risk preferences, and decision-making styles that influence corporate strategies including tax planning. The UK has been at the forefront of promoting board gender diversity through initiatives like the Davies Review and Hampton-Alexander Review.

The empirical evidence consistently shows that female board representation is associated with less aggressive tax avoidance. Francis, Hasan, Wu and Yan (2014) and Boussaidi and Hamed (2015) found that firms with more female directors exhibited higher effective tax rates. This is generally attributed to gender differences in risk preferences, with women being more risk-averse and concerned about reputational effects (Valsan, 2016; Watson and McNaughton, 2007; Jianakoplos & Bernasek, 1998).

However, in family firms, the effect of gender diversity may be more complex. Female family members on boards may have different motivations than independent female directors. Additionally, family firms that prioritize competence and merit in director selection may benefit from the improved board effectiveness associated with gender diversity (Oyotode-Adebile, Hibbert and Shankar, 2021; Brahama, Nwafor and Boateng, 2021). Given that tax avoidance represents a risk-return tradeoff, gender-diverse boards may optimize tax strategies rather than simply reducing tax avoidance.

Therefore, the fourth hypothesis is:

H4: The proportion of female board members presents a positive relationship with tax avoidance.

3.5.2 Management Compensation Mechanisms

H₅: Executive Compensation Structure and Tax Avoidance

An executive compensation plan creates incentives that can significantly influence tax planning decisions (Baghdadi, Podolski and Veeraghavan, 2022; Huang, Ying and Shen, 2018). Performance-based compensation, particularly equity-based incentives, aligns manager interests with shareholders who generally prefer higher after-tax returns (Halioui, Neifar, & Abdelaziz, 2016; Minnick & Noga, 2010; Gaertner, 2014; Rego & Wilson, 2012; Crocker and Slemrod, 2005; Phillip, 2003).

Gaertner (2014) found that equity incentives encouraged tax planning, while Armstrong et al. (2015) documented a non-linear relationship where incentives

increased tax avoidance at low levels but decreased it at high levels. This suggests that compensation effects depend on the firm's position on the tax planning spectrum, thus complex and may depend on existing tax strategies and risk levels. While negative relationship was reported by Desai and Dharmapala (2006) arguing that increased equity-based compensation should reduce tax avoidance, Seidman and Stomberg (2017) found limited evidence to support the premise.

In family firms, executive compensation plays a different role than in non-family firms. Family executives may be motivated by non-financial factors, making traditional incentive compensation less effective. Non-family executives in family firms face unique challenges in balancing family preferences with performance incentives. Given these complexities, the fifth hypothesis is:

H5: The level of executive incentive compensation presents a positive relationship with tax avoidance, with varying effects in family and non-family firms.

H₆: Remuneration Committee Independence and Tax Avoidance

The independence of remuneration committees is crucial to the design of executive compensation structure that appropriately balance risk and reward. Independent remuneration committees are more likely to create compensation packages that align executive interests with long-term firm value rather than short-term manipulation (Shabbir, Hanaysha, Oon, and Assif and Aslan, 2024; Al-Absy & Merza, 2024; Cybinski, Windsor and Sauser, 2013).

Independent remuneration committees may design compensation structures that encourage appropriate levels of tax planning while discouraging excessive risks. In the UK, where remuneration committees face significant scrutiny from shareholders and proxy advisors, independence is crucial for maintaining legitimacy and effectiveness.

In family firms, remuneration committee independence may be compromised by family influence over committee composition. However, independent committees

may also serve as important mediators between family owners and professional managers, designing compensation that balances family preferences with performance incentives.

Therefore, the sixth hypothesis is:

H6: Independence of remuneration committee presents a positive relationship with tax avoidance, with varying effects in family and non-family firms.

H₇: Remuneration Committee Size and Tax Avoidance

The size of remuneration committees affects their effectiveness in designing and monitoring executive compensation. Larger number of committees may bring more diverse perspectives and expertise due to greater amount of expertise (Hoseini et al., 2019); although but may suffer from coordination problems (Jensen, 1993). Smaller committees may be more decisive but may lack the breadth of knowledge needed to design complex compensation structures.

While no known studies have directly examined remuneration committee size and tax avoidance, larger remuneration committee has been found to be associated with improved financial indicators (Al-Absy and Merza, 2024). In the context of tax-related incentives, larger committees tend to bring broader expertise and diversity which enhances their ability to design compensation structures that supports company's goals and objectives.

Therefore, the seventh hypothesis is:

H7: Size of remuneration committee presents a positive relationship with tax avoidance and affects tax avoidance differently in family and non-family firms.

H₈: Gender Diversity on Remuneration Committee and Tax Avoidance

Gender diversity is associated to board effectiveness through improved monitoring, communication, and decision-making processes (Adams and Ferreira, 2009; Oyotode-Adebile, Hibbert and Shankar, 2021). Female directors bring distinct

perspectives and leadership styles characterized by more collaborative approaches and rigorous oversight (Eagly and Johannesen-Schmidt, 2001; Chen, Lai and Kuang, 2025). This enhanced effectiveness translates into improved financial performance, as documented by numerous studies (Bennouri, Chtioui, Nagati and Nekhili, 2018; Liu, Wei and Xie, 2014).

The impact of gender diversity extends to board subcommittees, including remuneration committees. Al-Absy and Merza (2024) found that increased female representation on remuneration committees is associated with improved financial performance, suggesting that gender-diverse committees make more effective compensation decisions. Female committee members may be particularly attentive to the alignment between executive incentives and long-term value creation, including appropriate tax strategies (Brahma, Nwafor and Boateng, 2020).

The relationship between remuneration committee gender diversity and tax avoidance depends on how female members balance risk management with value maximization. For non-family firms, gender-diversified remuneration committees may design compensation packages that incentivize tax efficiency while constraining excessive risk-taking (Richardson, Taylor and Lanis, 2016). This could lead to moderate increases in tax avoidance as executives are rewarded for legitimate tax planning that enhances shareholder value. However, in family firms, the effect may differ due to the interaction between formal governance mechanisms and family control. Gender-diverse remuneration committees in family firms may face unique challenges in balancing family interests with minority shareholder protection (Chen et al., 2010). Female committee members' enhanced monitoring capabilities may be particularly valuable in constraining opportunistic tax strategies that could damage the family's socioemotional wealth (Gaaya et al., 2017). Therefore:

H8: The proportion of female members on the remuneration committee is positively associated with tax avoidance, and this relationship differs between family and non-family firms.

3.5.3 Regulatory Mechanisms

H₉: Audit Committee Size

The audit committee serves as a critical governance mechanism through its oversight of audit processes, auditor activities, and financial reporting quality (FRC, 2024; Smith, 2003). An effective audit committee is expected to optimize financial reporting and disclosure practices through enhanced oversight (Forker, 1992; Dhaliwal, Naiker and Navissi, 2016), including the monitoring of tax strategies that could expose the firm to regulatory scrutiny or reputational damage.

The relationship between audit committee size and tax avoidance reflects competing theoretical perspectives. From a monitoring perspective, larger audit committees may face coordination challenges and decision-making inefficiencies, potentially weakening their oversight of aggressive tax positions (Vafeas, 1999; Nguyen, 2021; Dang and Nguyen, 2022). This problem suggests that as committee size increases, individual members may rely on others to perform detailed oversight, resulting in less effective constraint of risky tax strategies (Jensen, 1993; Lipton and Lorsch, 1992).

Conversely, from a resource dependence perspective, larger audit committees bring diverse expertise, broader knowledge and external linkages which can enhance strategic oversights (Zahra and Pearce, 1989). Committee members with varied backgrounds in finance, law, and industry can contribute sophisticated insights into legitimate tax minimization opportunities while ensuring compliance with regulatory requirements (Hsu et al., 2018; Robinson, Xue and Zhang, 2021).

Recent empirical evidence supports a positive association between audit committee size and tax avoidance. Nguyen (2021) found that larger audit committees are associated with increased tax avoidance, attributing this to coordination difficulties that impede effective oversight. Similarly, Abdeljawad, Al-Selkhi and Abu-Ras (2023) documented a positive relationship, suggesting that larger committees may interpret

tax planning as a value-maximizing activity worthy of support rather than a practice requiring restriction.

In family firms, this relationship may be particularly pronounced due to the interaction between family control and formal governance mechanisms. Larger audit committees in family firms may provide the expertise needed to implement sophisticated tax strategies while maintaining the appearance of robust governance (Gaaya et al., 2017). Therefore:

H9: Audit committee size is positively associated with tax avoidance, and this relationship differs between family and non-family firms.

Therefore, the ninth hypothesis is:

H₁₀: Audit Charter

An audit charter serves as a foundational governance document that formalizes the internal audit function's purpose, authority, and responsibilities within an organization (Institute of Internal Auditors, 2019). This formal documentation establishes the framework for effective internal control systems and defines the scope of audit activities, auditor independence, and quality assurance protocols (CIIA, 2023; Hakimi, Zolkafilil and Khalid, 2023).

The presence of an audit charter signals organizational commitment to robust risk management, internal control, and governance processes (IIA, 2019). By clearly delineating audit responsibilities and establishing accountability mechanisms, audit charters enhance the effectiveness of internal control systems and improve audit quality (Munter, 2015; Abbott, Parker and Peters, 2004). This formalization of audit processes creates systematic oversight that can constrain opportunistic behaviours, including aggressive tax strategies.

The relationship between audit charters and tax avoidance reflects the broader influence of audit quality on tax avoidance levels. The relationship between audit charters and tax avoidance reflects the broader influence of audit quality on

corporate tax strategies. While Rizqia and Lastiati (2021) suggest that audit quality may not directly affect tax avoidance levels, substantial evidence indicates that higher audit quality constrains aggressive tax planning. For example, Kanagaretnam, Krishnan and Lobo (2016) and Lennox, Lisowsky and Pittman (2016) found that enhanced audit quality reduces tax avoidance, as rigorous audit processes identify and challenge questionable tax positions.

In family firms, audit charters may play a particularly important role in professionalising governance structures and creating formal accountability mechanisms that complement informal family control (Songini and Gnan, 2015). The formalisation represented by an audit charter can help family firms balance tax efficiency objectives with reputational concerns and long-term sustainability goals (Chen et al., 2010). By establishing clear audit protocols, family firms can ensure tax strategies align with both financial objectives and socioemotional wealth preservation (Gaaya et al., 2017).

Therefore, the tenth hypothesis is

H₁₀: The presence of an audit charter is negatively associated with tax avoidance, and this relationship differs between family and non-family firms.

H₁₁: Auditor Independence

External auditors play a crucial role in constraining aggressive tax strategies through their evaluation of financial statements and tax positions (Kovermann and Velte, 2019; Gaaya et al., 2017). Given their responsibility for financial reporting integrity, auditors must assess whether tax avoidance strategies comply with regulations and are appropriately disclosed (Barrett, 2004; Klassen, Lisowsky and Mescall, 2016). Aggressive tax positions expose auditors to significant risks, including reputational damage, litigation exposure, and financial penalties if tax authorities successfully challenge questionable strategies (Donohoe and Knechel, 2014; Hogan and Noga, 2015).

High-quality auditors, particularly Big Four firms, are generally associated with lower levels of tax avoidance due to their expertise, resources, and reputational capital at stake (Gaaya et al., 2017; Kanagaretnam, Lee, Lim and Lobo, 2016). However, this constraining effect depends critically on auditor independence, which can be compromised when audit firms provide non-audit services to their clients (DeFond and Zhang, 2014; Luo, Lan and Tang, 2020).

The provision of non-audit services, including tax consultancy, can create potential conflicts of interest that threaten auditor independence (Luo, Lang and Tang, 2020). When audit firms derive substantial revenues from non-audit services, economic dependence may impair their willingness to challenge aggressive tax positions (Armstrong, Blouin and Larcker, 2012; Church, Jenkins, McCracken, Roush and Stanley, 2015). This compromised independence manifests in higher tolerance for tax avoidance strategies that might otherwise be challenged under a stricter audit relationship.

Empirical evidence supports this relationship. Studies have shown that higher proportions of non-audit fees relative to total fees are associated with increased level of tax avoidance (Salehi, Tarighi and Shahri, 2020; Hogan and Noga, 2015). Conversely, when audit fees constitute a higher proportion of total fees, suggesting greater auditor independence, firms exhibit lower levels of tax avoidance (Klassen, Lisowsky and Mescall, 2016; Luo, Lan and Tang, 2020).

In family firms, the auditor independence and tax avoidance relationship may be particularly complex. Family firms often maintain long-term relationships with auditors, which can either strengthen trust-based monitoring or create excessive familiarity that compromises independence (Gaaya et al., 2017). Additionally, family firms' concerns for socioemotional wealth may influence their receptiveness to auditor constraints on tax strategies (Chen et al., 2010). Therefore:

H₁₁: Auditor independence is negatively associated with tax avoidance, and this relationship differs between family and non-family firms.

H₁₂: Gender Diversity on Audit Committee and Tax Avoidance

Gender diversity on audit committees enhances corporate governance effectiveness through improved monitoring, diverse perspectives, and enhanced decision-making processes (Oradi and E-Vahdati, 2021; Byron and Post, 2016). Female directors contribute distinct leadership approaches characterised by greater diligence, ethical sensitivity, and comprehensive risk assessment (Adams and Ferreira, 2009; Green and Homroy, 2018). This enhanced effectiveness translates into improved financial performance across various corporate outcomes (Ararat and Yurtoglu, 2021).

Gender diversified audit committee and tax avoidance presents competing theoretical perspectives. Traditional research has posited a negative association, attributing this to women's greater risk aversion and ethical considerations (Zemzem and Ftouhi, 2016; Boussaidi and Hamed, 2015). Francis, Hasan, Wu and Yan (2014) found that firms with female CFOs exhibit lower tax avoidance, suggesting that women executives prioritise compliance over aggressive tax strategies.

However, this perspective overlooks tax planning as a legitimate value-maximisation strategy. Recent evidence suggests a more nuanced relationship. As gender-diverse audit committees enhance financial performance (Oradi and E-Vahdati, 2021), and moderate tax avoidance can improve financial outcomes (Mkadmi and Ben Ali, 2024; Nebie and Cheng, 2023), female audit committee members may support optimised tax strategies that balance risk and reward. This suggests that gender diversity may lead to more sophisticated tax planning that avoids both excessive conservatism and dangerous aggressiveness (Richardson, Taylor and Lanis, 2016).

In family firms, gender diversity on audit committees may interact with family-specific governance dynamics. Female audit committee members may be particularly effective at balancing the family's long-term orientation with legitimate tax planning opportunities (García-Meca, Ramon-Llorens and Martinez-Ferrero, 2021). Their enhanced monitoring capabilities could help family firms achieve tax efficiency whilst maintaining reputational capital and socioemotional wealth (Gaaya et al.,

2017). The moderating influence of gender diversity may therefore manifest differently across family and non-family firms, depending on existing governance structures and tax positions. Therefore:

H₁₂: Gender diversity on audit committees is positively associated with tax avoidance, and this relationship differs between family and non-family firms.

3.5.4 Additional Hypotheses for Empirical Study 3: Role of Family Influence

Family Influence Dimensions

H₁₃: Family Ownership and Tax Avoidance

The relationship between family ownership concentration and tax avoidance reflects the complex interplay between control rights and socioemotional wealth (SEW) preservation. Higher ownership concentration provides families with both the power to influence strategic decisions and heightened exposure to the consequences of those decisions (Berrone, Cruz and Gómez-Mejía, 2012; Chen et al., 2010). This concentrated control enables families to implement tax strategies aligned with their long-term objectives whilst bearing the full economic and reputational consequences of aggressive tax positions (Gaaya et al., 2017).

From an agency perspective, concentrated family ownership reduces Type I agency conflicts between owners and managers, potentially facilitating more efficient tax planning (Anderson and Reeb, 2003; Mafrolla and D'Amico, 2016). However, SEW theory suggests that families' non-economic objectives may moderate their tax avoidance behaviour. The potential reputational damage from aggressive tax strategy threatens the family's socioemotional endowment, including family reputation, dynastic succession, and community standing (Gómez-Mejía et al., 2007; Chen et al., 2010).

The UK institutional context moderates this relationship through robust investor protection mechanisms and regulatory oversight. The UK's disclosure requirements and "comply or explain" governance framework increase transparency around tax strategies, heightening reputational risks for aggressive tax planning (FRC, 2024;

Cheffins, 2015). This environment may lead family owners to pursue moderate tax avoidance strategies that optimise tax efficiency whilst preserving legitimacy and stakeholder trust (Hanlon and Heitzman, 2010; Hope, Ma and Thomas, 2013).

Prior evidence suggests that family ownership enables sophisticated tax planning within acceptable risk parameters. Families' long-term orientation allows them to develop tax strategies that generate sustainable benefits without causing regulatory scrutiny or reputational damage (Steijvers and Niskanen, 2014; Bauweraerts and Vandernoot, 2019). Therefore:

H₁₃: Family ownership proportion is positively associated with tax avoidance in UK family firms.

H₁₄: Family Board Representation and Tax Avoidance

Family board representation creates a governance channel through which families influence strategic decisions, including tax planning. Family directors bring distinctive motivations that integrate financial objectives with socioemotional wealth (SEW) preservation, shaping tax strategies through their unique position at the governance apex (Berrone et al., 2012; Basco and Voordeckers, 2015). This dual perspective enables family directors to evaluate tax opportunities through both economic and non-economic lenses, balancing potential savings against reputational risks.

The presence of family members on boards facilitates active monitoring and strategic alignment of tax policies with family values and long-term objectives (Anderson and Reeb, 2004; Villalonga and Amit, 2006). Family directors possess intimate knowledge of the family's risk tolerance, reputational concerns, and transgenerational wealth objectives, enabling them to calibrate tax strategies accordingly (Chen et al., 2010; Steijvers and Niskanen, 2014). Their board participation ensures tax planning decisions consider the full spectrum of consequences for both economic returns and socioemotional endowments.

Family directors may promote sophisticated tax planning that exploits legitimate opportunities whilst maintaining strict boundaries against aggressive strategies that could trigger regulatory scrutiny or stakeholder backlash (Gaaya et al., 2017; Cabello, Gaio and Watrin, 2019). Their long-term orientation and personal stake in preserving family reputation create natural constraints against short-term tax minimisation that could jeopardise future legitimacy (Bauweraerts and Vandernoot, 2019). This suggests family board representation enables optimised tax strategies that balance associated risk and reward.

In the UK context, family directors operate within a transparent governance environment that values reputational considerations. The UK Corporate Governance Code's emphasis on board accountability and stakeholder interests reinforces family directors' inclination toward responsible tax planning (FRC, 2024; Hope et al., 2013). Therefore:

H₁₄: Family board representation is positively associated with tax avoidance in UK family firms

H₁₅: Combined Family Influence and Tax Avoidance

The resource-based view opined that the simultaneous presence of family ownership and board representation creates distinctive organisational capabilities that exceed the sum of their individual contributions (Barney, 1991; Sirmon and Hitt, 2003). This combination generates unique firm-specific resources through the combination of family ownership proportions and direct governance involvement, enabling families to use inherent knowledge of business, relational advantage, and long-term perspective to achieve strategic objectives (Habbershon and Williams, 1999; Pearson, Carr and Shaw, 2008).

The combination of ownership and board presence changes governance dynamics by eliminating the separation between principals and agents at the board level (Jensen and Meckling, 1976; Villalonga and Amit, 2006). Family owner-directors possess both the incentives and authority to implement coherent tax strategies that reflect long-term value creation whilst preserving socioemotional wealth (Miller and

Le Breton-Miller, 2006; Chrisman and Patel, 2012). This unified control structure may reduce agency costs that may otherwise typically constrain tax planning effectiveness in widely held firms.

The joint effect is evident through greater alignment and implementation capabilities. For instance, family owner-directors can rapidly assess tax opportunities against adequate criteria such as potential reward versus consequence e.g. reputational implications, and Impact on family legacy, which might be difficult for members who do not hold the dual position (Zellweger, Eddleston and Kellermanns, 2010; Miroshnychenko, De Massis, Miller and Barontini, 2021). Their dual role creates avenue for tax avoidance strategy that exploits legitimate opportunities whilst maintaining strict governance oversight to prevent excessive risk-taking.

In the UK institutional environment, this combined influence operates within a strong regulatory framework that encourages responsible tax strategies. The interaction between concentrated ownership and board presence creates accountability mechanisms that complement external governance requirements, potentially leading to optimised tax positions that balance efficiency with legitimacy (Gaaya et al., 2017; Chen et al., 2010). Therefore:

H₁₅: The combined effect of family ownership and board representation is positively associated with tax avoidance in UK family firms.

3.5.5 Additional Hypotheses for Empirical Study 4: Moderating Effects

Family Influence as Moderator

H₁₆: Family Influence Moderating Board Characteristics

Family influence affects the effectiveness of board governance mechanisms by creating informal control channels that can override or complement formal structures (Basco and Voordeckers, 2015; Nordqvist, Sharma and Chirico, 2014). When families maintain strong influence through ownership concentration and board representation, they possess the ability to evade traditional governance

constraints, particularly those designed to ensure board independence. Independent directors' monitoring capacity becomes reduced or insignificant as family control may override the effect of board independence on tax strategies (Anderson and Reeb, 2004; Jaggi, Leung and Gul, 2009).

Conversely, board expertise and diversity may gain increased importance under family influence as families seek professional competence and external legitimacy for their tax strategies (Miller, Le Breton-Miller and Lester, 2013). Financial expertise becomes particularly valuable given their need for specialist knowledge to explore complex tax regulations whilst aiming to manage reputational risks and potential consequence of tax avoidance. Similarly, gender diversity may exert stronger influence in family firms where female directors prove to be important in creating a balance between family goals and business decision-making (Campopiano, De Massis and Chirico, 2014), particularly in relation to tax avoidance.

The presence of family influence shapes how governance mechanisms operate within the firm. Families influence interacts with governance structures by resisting mechanisms that reduce their control whilst embracing those that enhance their decision-making capabilities (Gómez-Mejía et al., 2011). Within the UK's transparent governance environment, this selective engagement enables families to leverage professional expertise and board diversity as signals of good governance, whilst preserving their ultimate authority over strategic decisions including tax planning (Calabrò et al., 2013; García-Ramos and García-Olalla, 2011).

Therefore:

H16: Family influence moderates the relationship between board characteristics and tax avoidance, with stronger family influence weakening the effect of board independence whilst strengthening the effects of financial expertise and gender diversity.

H17: Family Influence Moderating Compensation Mechanisms

The effectiveness of performance-based compensation in influencing tax strategies depends on the level of family influence within the firm. Family executives are primarily motivated by socioemotional wealth (SEW) preservation rather than financial incentives, making traditional compensation mechanisms less effective in shaping their tax decisions (Gómez-Mejía et al., 2007; Michiels, Voordeckers, Lybaert and Steijvers, 2013). Their intrinsic connection to the firm through ownership and family legacy creates motivations that are greater than monetary compensation.

However, compensation structures remain crucial for non-family executives in family firms. These mechanisms serve to align non-family managers' interests with family objectives, including appropriate tax strategies that balance efficiency with reputational concerns (Cruz, Gómez-Mejía and Becerra, 2010). The presence of family influence thus creates a dual effect where financial incentives primarily motivate non-family executives whilst family members respond to broader socioemotional considerations. Therefore:

H17: Family influence moderates the relationship between management compensation mechanisms and tax avoidance, with compensation effects being weaker in firms with higher family influence.

H₁₈: Family Influence Moderating Regulatory Mechanisms

Family influence moderates the effectiveness of regulatory mechanisms, particularly audit quality and effectiveness, in constraining tax avoidance behaviours. The relationship depends on how families perceive external monitoring; as a legitimacy-enhancing tool or a threat to their influence in the firm (Prencipe, Bar-Yose, Mazzola, and Pozza, 2011; Gaaya et al., 2017). When families view rigorous audits and regulatory compliance as signals of professionalism and good governance, they may actively support high-quality audits and audit committee effectiveness to enhance their reputation with stakeholders whilst pursuing moderate tax planning strategies (Hope et al., 2013). Conversely, families seeking to preserve control may use their influence to limit audit scope, select more accommodating auditors, or

develop relationships that compromise auditor objectivity (Khan and Subramaniam, 2012; Gil, Uman, Hiebl and Seifner, 2024).

The UK's robust regulatory environment, characterised by stringent disclosure requirements and strong investor protection, shapes this interaction by increasing the reputational costs of perceived governance failures. This institutional context encourages families to embrace regulatory compliance as an asset rather than resist it as an unwelcome constraint (FRC, 2024; Cheffins, 2015). The direction of moderation thus depends on families' strategic orientation, whether they prioritise firm's reputation from stakeholder's perspective or internal control. This is what then determines if family influence complements or undermines regulatory mechanisms in affecting tax strategies. Therefore:

H18: Family influence moderates the relationship between regulatory mechanisms and tax avoidance, with the direction of moderation depending on whether families view external monitoring as legitimacy-enhancing or constraining.

Table 3.5 *Summary of Research Hypotheses*

Hypothesis	Variable Relationship	Expected Sign	Theoretical Basis	Study Context
Board Characteristics				
H1	Board independence and tax avoidance	Negative (-)	Agency Theory	Different between family/non-family firms
H2	Board size and tax avoidance	Negative (-)	Agency Theory	Different between family/non-family firms

Hypothesis	Variable Relationship	Expected Sign	Theoretical Basis	Study Context
H3	Financial expertise and tax avoidance	Positive (+)	Resource Dependence Theory	Different between family/non-family firms
H4	Female board members and tax avoidance	Positive (+)	Upper Echelons Theory	Different between family/non-family firms
Management Compensation				
H5	Executive incentive compensation and tax avoidance	Positive (+)	Agency Theory	Different between family/non-family firms
H6	RemCo independence and tax avoidance	Positive (+)	Agency Theory	Different between family/non-family firms
H7	RemCo size and tax avoidance	Positive (+)	Resource Dependence Theory	Different between family/non-family firms

Hypothesis	Variable Relationship	Expected Sign	Theoretical Basis	Study Context
H8	RemCo gender diversity and tax avoidance	Positive (+)	Upper Echelons Theory	Different between family/non-family firms
Regulatory Mechanisms				
H9	Audit committee size and tax avoidance	Positive (+)	Resource Dependence Theory	Different between family/non-family firms
H10	Audit charter presence and tax avoidance	Negative (-)	Institutional Theory	Different between family/non-family firms
H11	Auditor independence and tax avoidance	Negative (-)	Agency Theory	Different between family/non-family firms
H12	AC gender diversity and tax avoidance	Positive (+)	Upper Echelons Theory	Different between family/non-family firms
Family Influence				

Hypothesis	Variable Relationship	Expected Sign	Theoretical Basis	Study Context
H13	Family ownership and tax avoidance	Positive (+)	Agency Theory / SEW Theory	UK family firms
H14	Family board representation and tax avoidance	Positive (+)	SEW Theory	UK family firms
H15	Combined family influence and tax avoidance	Positive (+)	Resource-Based View / SEW Theory	UK family firms
Moderating Effects				
H16	Family influence moderating board characteristics	Mixed*	SEW Theory / Agency Theory	UK family firms
H17	Family influence moderating compensation mechanisms	Weakening	SEW Theory	UK family firms
H18	Family influence moderating regulatory mechanisms	Conditional**	Institutional Theory / SEW Theory	UK family firms

Notes:

- Tax avoidance is measured using Book-Tax Differences (BTD)
- RemCo = Remuneration Committee; AC = Audit Committee

- H1-H12 examine differential effects between family and non-family firms
- H13-H18 focus specifically on UK family firms
- *H16: Family influence weakens board independence effects but strengthens financial expertise and gender diversity effects
- **H18: Direction depends on whether families view external monitoring as legitimacy-enhancing or constraining

3.6 Chapter Summary

This chapter explored theoretical and empirical foundations for examining corporate governance, family influence, and tax avoidance in UK family firms. The integrated framework combining six complementary theories provides a comprehensive lens for understanding how family firms navigate tax decisions whilst balancing financial and non-financial objectives.

The literature review identified significant gaps, particularly regarding how governance mechanisms operate differently in family firms within specific institutional contexts. The UK's unique governance environment and substantial family firm sector provides an ideal setting for addressing these gaps.

The eighteen hypotheses developed span four empirical studies: comparing family and non-family firms (H1-H12), examining family influence effects (H13-H15), and testing moderating relationships (H16-H18). These hypotheses recognise that family control fundamentally alters how governance mechanisms influence tax strategies.

By integrating multiple theoretical perspectives and addressing identified gaps, this research advances understanding of governance-tax relationships in family firms. The next chapter presents the methodology designed to test these complex relationships whilst addressing the endogeneity and measurement challenges identified in the literature.

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4. Research Methodology

4.1 Introduction

This chapter presents the research methodology adopted to investigate the relationships between corporate governance mechanisms, family influence, and tax avoidance behaviours among UK firms. The study adopts a quantitative research paradigm using panel data analysis to test the eighteen hypotheses developed in Chapter 3. The methodology is designed to address the four research objectives: (1) comparing governance effects between family and non-family firms, (2) examining governance impacts within family firms, (3) analysing direct family influence effects, and (4) investigating moderating relationships. This chapter outlines the research philosophy, data sources, sample selection, variable operationalisation, and econometric methods, with particular attention to addressing endogeneity concerns inherent in governance research.

4.2 Research Philosophy and Approach

This research adopts a positivist philosophy with a deductive approach, consistent with the objective of establishing causal relationships between observable phenomena (Saunders, Lewis and Thornhill, 2019). The positivist stance aligns with the quantitative investigation of governance mechanisms and tax outcomes, treating these as measurable, objective realities that can be analysed through statistical methods (Crotty, 1998; Bryman and Bell, 2015).

The deductive approach is appropriate given the grounded theoretical foundations explored in Chapter 3. With well-developed theories including agency theory and socioemotional wealth theory providing clear propositions about governance-tax relationships, the research moves from theory to hypothesis testing through empirical observation (Colquitt and Zapata-Phelan, 2007; Edmondson and McManus, 2007). This approach contrasts with inductive research that would build theory from observations, which would be less suitable given the extensive existing

theoretical frameworks in corporate governance research (Ketokivi and Mantere, 2010).

4.3 Research Design

The study employs a longitudinal panel design analysing 80 firms (40 family, 40 non-family) over 13 years (2007-2019), generating 1,040 firm-year observations. This design offers several methodological advantages:

The longitudinal panel design offers several methodological advantages that are particularly important for governance research. First, the 13-year period from 2007 to 2019 captures substantial variations in governance structures and tax strategies over time, including responses to major regulatory changes such as the introduction of the General Anti-Abuse Rule (GAAR) in 2013. This extended period is crucial for understanding how governance-tax relationships evolve and adapt to changing regulatory environments (Petersen, 2009; Hsiao, 2014). The timeframe also allows for the identification of both short-term adjustments and long-term strategic shifts in tax planning approaches.

Another advantage of the panel data method is that it provides a robust framework for controlling time-invariant firm characteristics that may influence both governance choices and tax outcomes (Wooldridge, 2010; Baltagi, 2013). These unobserved firm-specific factors, such as corporate culture, management philosophy, or historical practices, represent a key source of endogeneity in governance research (Azim, 2012). By exploiting within-firm variation over time, the panel structure helps isolate the effects of changing governance mechanisms from these fixed characteristics.

Lastly, the matched sample design enables systematic comparison between family and non-family firms whilst controlling for potentially confounding industry and size effects. This matching approach is essential for identifying differential governance impacts that can be attributed to family status rather than other firm characteristics

(Stuart, 2010). The equal representation of both firm types ensures statistical power for detecting interaction effects that are central to the research questions.

4.4 Data Sources and Sample Selection

4.4.1 Data Sources

The study employs secondary data from established commercial databases and public corporate disclosures from company websites and other publicly available sources. This choice of data sources is supported by the following factors:

Objectivity and Reliability: Secondary data from credible and established sources eliminates response bias inherent in self-reported data on sensitive topics like tax avoidance (Cowton, 1998). Tax strategies represent commercially sensitive information that are unlikely to be accurately disclosed through primary data collection methods (Graham, Hanlon, Shevlin and Shroff, 2014).

Historical Accuracy: The 13-year study period requires historical data that would be impossible to collect after the fact through primary methods. Secondary databases provide consistent, real-time data recorded at the time of occurrence, avoiding recall bias and ensuring historical accuracy (Cheng and Phillips, 2014; Johnston, 2017). Data collection after the fact through surveys or interviews would suffer from significant recall bias (Althubaiti, 2016), particularly for complex financial and governance information spanning over a decade

Population Coverage: Secondary databases provide comprehensive coverage of UK listed firms, enabling systematic sampling and matching procedures. Primary data collection would likely suffer from low response rates given the sensitive nature of tax strategies, potentially creating selection bias (Cycyota and Harrison, 2006).

The primary data sources include:

NRG Metrics: Provides comprehensive corporate governance data including board composition, director characteristics, committee structures, and governance

practices for UK listed companies. The database's standardised data collection ensures consistency across firms and time periods.

FAME (Financial Analysis Made Easy): Supplies financial statement data, ownership information, and firm characteristics. Bureau van Dijk's quality control procedures ensure data reliability and completeness.

Company Annual Reports: Supplements commercial databases with detailed information on family involvement, audit charter presence, and governance practices not fully captured in standardised databases. Annual reports are accessed through company websites and Companies House.

4.4.2 Sample Selection

The sample selection followed a systematic process ensuring comparability whilst maintaining data quality:

Population Definition: All companies listed on the London Stock Exchange during 2007-2019 formed the initial population, ensuring access to governance data required under listing rules.

Industry Exclusions: Financial were excluded due to different regulatory frameworks affecting both governance requirements and tax treatments. The sector face unique compliance requirements making their governance mechanisms non-comparable with other industries (Adams and Mehran, 2012).

Table 4.1 Sample Selection Process

Selection Criteria	Number of Firms
Initial UK firms from NRG Metrics database	542
Total observations available	4,396
Less: Non-family firms not meeting criteria	(469)

Selection Criteria	Number of Firms
Family firms meeting definition criteria	73
Less: Missing financial data for BTD calculation	(33)
Family firms with complete data	40
Matched non-family firms	40
Total final sample	80
Final observations (80 × 13 years)	1,040

Database Selection: The NRG Metrics database provided comprehensive governance data for 542 UK firms with 4,396 total observations over the study period. Systematic screening identified 73 firms meeting the dual-criteria family firm definition (minimum 3% family ownership and presence via board representation).

Data Integration and Quality Requirements: Construction of the complete dataset required integration of family governance data from NRG Metrics with financial data (and other governance data) from FAME for BTD calculation and control variables. This integration revealed significant data constraints: 33 family firms lacked sufficient financial data, and many firms had incomplete time series (some appearing for only single years within 2007-2019). To ensure reliable dynamic panel estimation, only firms with complete 13-year data across both databases were retained.

Final Sample Construction: The final sample comprises 40 family firms with complete governance and financial data across all 13 years, matched with 40 non-family firms meeting identical criteria. This approach prioritizes methodological rigor over sample size, following established practice in corporate governance research where data quality requirements often necessitate focused samples

(Wintoki, Linck and Netter, 2012; Roberts and Whited, 2013). The final sample provides 1,040 firm-year observations ($80 \text{ firms} \times 13 \text{ years}$) in a strongly balanced panel structure, eliminating survivorship bias and ensuring reliable System GMM estimation.

4.4.3 Matching Procedure

Family and non-family firms were matched primarily on size (total assets), controlling for this key confounding factor. While industry data was collected and available, systematic industry matching was not implemented in the final sample selection. The matching process focused on ensuring observed differences reflect family status rather than substantial size disparities between firm types (Rosenbaum and Rubin, 1983; Stuart, 2010).

4.4.4 Family Firm Definition

The study employs a dual-criteria approach to family firm identification, specifically designed to capture the nuanced nature of family influence in the UK's dispersed ownership context. This approach represents a methodological improvement over simple binary classifications commonly used in earlier research.

Ownership Criterion: Minimum 3% family ownership threshold, specifically calibrated to reflect the UK's dispersed ownership environment where relatively small stakes can provide significant influence due to the dispersed nature of other shareholdings (Franks, Mayer and Rossi, 2009; Faccio and Lang, 2002). This threshold recognises that the UK's institutional context differs significantly from jurisdictions with more concentrated ownership structures, where higher thresholds might be appropriate.

Board Representation Criterion: At least one family member serving as director, recognising that board presence provides family members with direct involvement in strategic decision-making regardless of ownership percentage. This criterion captures family influence through management involvement, which may be

particularly important for tax strategy decisions that require board-level approval (Anderson and Reeb, 2003; Villalonga and Amit, 2006).

This dual-dimensional definition captures both objective ownership/control and subjective family identity, consistent with contemporary family business research that recognises family firms as a heterogeneous category requiring nuanced measurement approaches (Berrone et al., 2012; Chrisman, Chua, person and Barnett, 2012). The approach moves beyond simple ownership thresholds to capture the multifaceted nature of family influence on corporate behaviour.

4.5 Variable Operationalisation

4.5.1 Dependent Variable

Tax Avoidance (LBOTD): The primary dependent variable measures tax avoidance using logged Book-Tax Differences, calculated as:

$$\text{BTD} = (\text{Pre-tax book income} - \text{Taxable income}) / \text{Total assets}$$

$$\text{Where taxable income} = \text{Current tax expense} / \text{Statutory tax rate}$$

The natural log transformation [$\text{LBOTD} = \ln(1 + \text{BTD})$] addresses the high dispersion and occasional negative values in raw BTD data whilst facilitating interpretation of percentage changes in tax avoidance behaviour.

This measure captures tax planning activities that reduce taxable income relative to book income, representing a comprehensive proxy for tax avoidance behaviour that is widely validated in academic research (Frank, Lynch and Rego, 2009; Hanlon and Heitzman, 2010; Lisowsky, 2010). BTD reflects both aggressive tax strategies and legitimate tax planning, consistent with the study's focus on comprehensive tax avoidance behaviour rather than solely aggressive strategies.

The book-tax difference approach has several advantages over alternative tax avoidance measures. Unlike effective tax rate measures, BTD is not affected by permanent book-tax differences that reflect legitimate business decisions rather than tax planning strategies (Plesko, 2003; Manzon and Plesko, 2002). BTD also captures

temporary differences that may reverse over time, providing a more comprehensive measure of tax planning activities compared to cash effective tax rates that reflect only cash payments in each period (Dyreng, Hanlon and Maydew, 2008).

4.5.2 Independent Variables

Variables are organised following the theoretical framework:

4.5.2.1 Board Characteristics Variables:

LBSZE: Natural log of total board size, capturing the scale of board oversight and decision-making processes. Board size has theoretical implications for governance effectiveness, with larger boards potentially providing better monitoring through diverse expertise but also facing coordination challenges (Yermack, 1996; Coles, Daniel and Naveen, 2008).

BIND: Proportion of independent directors on the board (calculated as number of independent directors / total board size), measuring the extent of independent oversight. Board independence is central to agency theory predictions about governance effectiveness, with independent directors expected to provide objective monitoring of management decisions (Fama and Jensen, 1983; Weisbach, 1988).

FEXB: Proportion of directors with financial expertise, capturing the board's technical capacity to understand and evaluate complex tax strategies. Financial expertise is particularly relevant for tax decisions given their technical complexity and potential impact on firm value (DeFond, Hann and Hu, 2005; Cohen, Krishnamoorthy and Wright, 2004).

FBRD: Dummy variable for board gender diversity (1 if any female directors, 0 otherwise), capturing the presence of diverse perspectives on the board. Gender diversity has been linked to different risk preferences and decision-making processes that may affect tax strategy choices (Adams and Ferreira, 2009; Carter, Simkins and Simpson, 2003).

4.5.2.2 Management Compensation Variables:

DRTP: Director remuneration as a proportion of profit (total directors' fees / profit before tax), measuring the relative scale of executive compensation. Higher remuneration ratios may create stronger incentives for directors to engage in risk-taking behaviour, including aggressive tax strategies, to enhance firm performance and justify compensation levels (Jensen and Murphy, 1990; Core, Holthausen and Larcker, 1999). This variable captures the alignment between director compensation and firm profitability, which may influence willingness to pursue tax planning strategies that could enhance after-tax returns (Armstrong, Blouin and Larcker, 2012; Gaertner, 2014).

RCIN: Dummy variable for remuneration committee independence (1 if independent, 0 otherwise), measuring the quality of compensation governance oversight. Independent remuneration committees, composed primarily or entirely of non-executive directors, are expected to provide more objective oversight of executive compensation decisions and reduce potential conflicts of interest in compensation setting (Conyon and Peck, 1998; Main, Bruce and Buck, 1996). Independent oversight may lead to more balanced compensation structures that discourage excessive risk-taking behaviour, including overly aggressive tax strategies pursued solely to justify high compensation levels (Murphy, 1999; Bebchuk and Fried, 2004; Fernandes, Ferreira and Matos, 2013).

RCSZ: Number of directors on remuneration committee (as a proportion of board size), measuring the scale of compensation oversight. Committee size may affect the quality and thoroughness of compensation decisions, with implications for the incentive structures that influence tax strategy choices (Vafeas, 1999; Conyon and Peck, 1998). Larger committees may provide more diverse expertise and thorough deliberation in compensation design, potentially leading to more balanced incentive structures that discourage excessive risk-taking (Newman and Mozes, 1999).

FMRC: Number of female directors on remuneration committee (as a proportion of board size), capturing gender diversity in compensation oversight. Female

representation on remuneration committees may influence compensation design and risk-taking incentives through different perspectives on appropriate reward structures (Adams and Ferreira, 2009; Baixauli-Soler, Belda-Ruiz and Sánchez-Marín, 2015). Research suggests that female directors tend to favor more conservative compensation policies and may be more skeptical of high-risk strategies, including aggressive tax planning (Sila, Gonzalez and Hagendorff, 2016; Gul, Srinidhi and Ng, 2011).

4.5.2.3 Regulatory Mechanisms Variables:

AUSZ: Natural log of audit committee size, measuring the scale of audit oversight capacity. Audit committee size affects the committee's ability to provide thorough oversight of financial reporting and tax strategies, with larger committees potentially providing more comprehensive monitoring (DeZoort, Hermanson, Archambeault, and Reed, 2002; Turley and Zaman, 2004).

AUCH: Dummy variable for audit charter presence (1 if present, 0 otherwise), indicating the formalisation of audit committee responsibilities. Audit charters establish clear guidelines for committee operations and may enhance the effectiveness of audit oversight by providing explicit frameworks for monitoring activities (DeZoort et al., 2002; Turley and Zaman, 2004). Formal charters typically specify committee duties, authority, and procedures, potentially improving oversight quality and reducing information asymmetries that could enable aggressive tax strategies (Klein, 2002; Krishnan, 2005).

AUDR: Audit fees ratio calculated as audit fees divided by total fees (audit fees + non-audit fees), measuring auditor independence and the extent of non-audit services. Higher ratios indicate greater auditor independence from non-audit service provision, which may enhance audit quality and effectiveness in detecting and deterring aggressive tax strategies (Krishnan, Sami and Zhang, 2005; Lim and Tan, 2008). The provision of significant non-audit services may compromise auditor independence and reduce the likelihood of challenging questionable tax positions

(Sharma and Sidhu, 2001; Ruddock, Taylor and Taylor, 2006; Quick and Warming-Rasmussen, 2015).

BIG4: Dummy variable for Big Four auditor engagement (1 if Big Four, 0 otherwise), measuring external audit quality. Big Four auditors are generally considered to provide higher quality audits and may be more effective at detecting and deterring aggressive tax strategies (Becker, DeFond, Jiambalvo, and Subramanyam, 1998; Francis, 2004).

FDAC: Female directors on audit committee as a proportion of total board members, capturing gender diversity in audit oversight. Female representation on audit committees has been associated with enhanced scrutiny of financial reporting and potentially more conservative approaches to financial risk that could affect approval of aggressive tax strategies (Srinidhi, Gul and Tsui, 2011; Thiruvadi and Huang, 2011). Research suggests that female audit committee members bring different perspectives and may exercise more thorough oversight, potentially leading to greater conservatism in financial reporting and tax planning decisions (Gul, Srinidhi and Ng, 2011; Peni and Vähämaa, 2010).

4.5.2.4 Family Influence Variables

Core Family Variables:

FAMO: Family ownership percentage, measuring the degree of family economic control. This continuous variable captures varying levels of family ownership rather than simple binary classifications, enabling more nuanced analysis of how ownership concentration affects firm behaviour (Claessens, Djankov, Fan, and Lang, 2002; La Porta, Lopez-de-Silanes and Shleifer, 1999).

FAMB: Family board representation (proportion of family directors), measuring family involvement in strategic decision-making. Board representation provides direct influence over tax strategies and other key decisions regardless of ownership percentage (Anderson and Reeb, 2003; Bennedsen, Nielsen, Pérez-González, and Wolfenzon, 2007).

MOD: Aggregate family influence measure calculated as $FAMO \times FAMB$, capturing the interaction between ownership and board control. This combined measure recognises that family influence represents a unique joint effect when families hold both ownership stakes and board positions simultaneously, rather than simply the sum of individual components (Villalonga and Amit, 2006; Miller et al., 2007).

4.5.2.5 Interaction Variables for Moderating Effects Analysis

For Objective 4 testing moderating effects, comprehensive interaction terms were created to examine how family influence affects the effectiveness of governance mechanisms:

Family Ownership Interactions ($FAMO \times Governance$):

- $FAMOBIND = FAMO \times BIND$ (ownership $\times$ board independence)
- $FAMOLBSZE = FAMO \times LBSZE$ (ownership $\times$ board size)
- $FAMOFEXB = FAMO \times FEXB$ (ownership $\times$ financial expertise)
- $FAMOFBRD = FAMO \times FBRD$ (ownership $\times$ gender diversity)
- Similar interactions created for all compensation and regulatory variables

Family Board Representation Interactions ($FAMB \times Governance$):

- $FAMBIND = FAMB \times BIND$ (board representation $\times$ board independence)
- $FAMBLBSZE = FAMB \times LBSZE$ (board representation $\times$ board size)
- $FAMBFEXB = FAMB \times FEXB$ (board representation $\times$ financial expertise)
- $FAMBFBRD = FAMB \times FBRD$ (board representation $\times$ gender diversity)
- Similar interactions for all compensation and regulatory variables

Aggregate Family Influence Interactions ($MOD \times Governance$):

- $MODLBSZE = MOD \times LBSZE$, $MODBIND = MOD \times BIND$, etc.

- These capture how combined family influence moderate governance effects

These interaction terms enable testing whether family influence strengthens or weakens the effectiveness of specific governance mechanisms. The separate testing of ownership-based and board-based moderating effects recognises that these two dimensions of family influence may operate through different channels in shaping governance effectiveness.

4.5.2.6 Control Variables

The study includes comprehensive control variables addressing firm characteristics that may influence tax avoidance behaviour, based on established findings in the tax avoidance literature:

LLVRG: Natural log of leverage ratio (total debt/total assets), controlling for capital structure effects on tax planning. Highly leveraged firms may have different incentives for tax avoidance due to debt tax shields and financial constraints (Graham, 2003; Faulkender and Smith, 2016).

FSZE: Natural log of firm size (total assets), controlling for scale effects on tax planning capacity and regulatory scrutiny. Larger firms typically have more resources for sophisticated tax planning but also face greater regulatory attention (Mills, Erickson and Maydew, 1998; Rego, 2003).

LRTAS: Natural log of return on assets, controlling for profitability effects on tax planning incentives. More profitable firms may have stronger incentives for tax avoidance due to higher tax liabilities but may also face greater scrutiny (Gupta and Newberry, 1997; Richardson and Lanis, 2007).

LAGE: Natural log of firm age, controlling for experience and institutional effects on tax planning. Older firms may have more established tax planning capabilities but also more conservative approaches due to reputational concerns (Chen et al., 2010; McGuire, Wang and Wilson, 2014).

4.5.3 Summary of Variables

Table 4.2 provides a comprehensive summary of all variables used in the empirical analysis.

Table 4.2 *Variable Definitions and Data Sources*

Variable Code	Variable Name	Definition	Measurement	Data Source
Dependent Variable				
LBOTD	Logged Book-Tax Differences	Natural log of book-tax differences scaled by total assets	Continuous	FAME/Annual Reports
Board Characteristics				
BIND	Board Independence	Proportion of independent directors	Continuous (0-1)	NRG Metrics / Annual Reports
LBSIZE	Board Size	Natural log of total directors	Continuous	NRG Metrics / Annual Reports
FEXB	Financial Expertise	Proportion of directors with financial qualifications	Continuous (0-1)	NRG Metrics/Annual Reports
FBRD	Board Gender Diversity	Percentage of female members on board	Continuous (0-100%)	NRG Metrics

Variable Code	Variable Name	Definition	Measurement	Data Source
Management Compensation				
DRTP	Director Remuneration	Director remuneration as proportion of profit	Continuous ratio	FAME/Annual Reports
RCIN	Remuneration Committee Independence	Dummy for independent remuneration committee	Binary (0/1)	NRG Metrics
RCSZ	Remuneration Committee Size	Directors on remuneration committee as proportion of board	Continuous (0-1)	NRG Metrics
FMRC	Female Remuneration Committee	Female directors on remuneration committee as proportion of board	Continuous (0-1)	NRG Metrics
Regulatory Mechanisms				
AUSZ	Audit Committee Size	Natural log of audit committee size	Continuous	NRG Metrics

Variable Code	Variable Name	Definition	Measurement	Data Source
AUCH	Audit Charter	Dummy for audit charter presence	Binary (0/1)	NRG Metrics
AUDR	Audit Fees Ratio	Audit fees divided by total fees (audit + non-audit)	Continuous (0-1)	FAME/Annual Reports
BIG4	Big Four Auditor	Dummy for Big Four auditor	Binary (0/1)	FAME/Annual Reports
FDAC	Female Audit Committee	Female directors on audit committee as proportion of board	Continuous (0-1)	NRG Metrics
Family Influence				
FAMO	Family Ownership	Family ownership percentage	Continuous (0-100%)	NRG Metrics
FAMB	Family Board	Proportion of family directors	Continuous (0-1)	NRG Metrics
MOD	Combined Influence	$FAMO \times FAMB$	Continuous	Calculated
Control Variables				

Variable Code	Variable Name	Definition	Measurement	Data Source
LLVRG	Leverage	Natural log of debt-to-assets ratio	Continuous	FAME
FSZE	Firm Size	Natural log of total assets	Continuous	FAME
LRTAS	Profitability	Natural log of return on assets	Continuous	FAME
LAGE	Firm Age	Natural log of years since incorporation	Continuous	FAME

4.6 Econometric Approach

4.6.1 Model Specifications

The study implements model specifications that directly correspond to the four research objectives, ensuring clear alignment between theoretical objectives and empirical testing:

Objective 1 - Comparative Analysis Models: These models test governance mechanisms separately for family and non-family firms across three categories:

Board Characteristics Model:

$$LBOTD_{it} = \beta_0 + \beta_1 LBOTD_{it-1} + \beta_2 LBSZE_{it} + \beta_3 BIND_{it} + \beta_4 FEXB_{it} + \beta_5 FBRD_{it} + \beta_6 FAMO_{it} + Controls_{it} + \epsilon_{it}$$

Management Compensation Model:

$$LBOTD_{it} = \beta_0 + \beta_1 LBOTD_{it-1} + \beta_2 DRTP_{it} + \beta_3 RCIN_{it} + \beta_4 RCSZ_{it} + \beta_5 FMRC_{it} + \beta_6 FAMO_{it} + Controls_{it} + \epsilon_{it}$$

Regulatory Mechanisms Model:

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 \text{AUSZ}_{it} + \beta_3 \text{AUCH}_{it} + \beta_4 \text{AUDR}_{it} + \beta_5 \text{BIG4}_{it} + \beta_6 \text{FDAC}_{it} + \beta_7 \text{FAMO}_{it} + \text{Controls}_{it} + \epsilon_{it}$$

Objective 2 - Family Firm Governance Analysis: Uses the same three governance models above but estimated solely on the family firm subsample to examine governance effectiveness within family firms.

Objective 3 - Family Influence Direct Effects Models (Family firms only):

Family Ownership Effect (H13):

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 \text{FAMO}_{it} + \text{Controls}_{it} + \epsilon_{it}$$

Family Board Representation Effect (H14):

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 \text{FAMB}_{it} + \text{Controls}_{it} + \epsilon_{it}$$

Aggregate Family Influence Effect (H15):

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 \text{MOD}_{it} + \text{Controls}_{it} + \epsilon_{it}$$

Objective 4 - Moderating Effects Models (Family firms only):

Family Influence $\times$ Board Mechanisms (H16):

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 (\text{FAMO}_{it} \times \text{Board}_{it}) + \beta_3 (\text{FAMB}_{it} \times \text{Board}_{it}) + \text{Controls}_{it} + \epsilon_{it}$$

Family Influence $\times$ Compensation Mechanisms (H17):

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 (\text{FAMO}_{it} \times \text{Comp}_{it}) + \beta_3 (\text{FAMB}_{it} \times \text{Comp}_{it}) + \text{Controls}_{it} + \epsilon_{it}$$

Family Influence $\times$ Regulatory Mechanisms (H18):

$$\text{LBOTD}_{it} = \beta_0 + \beta_1 \text{LBOTD}_{it-1} + \beta_2 (\text{FAMO}_{it} \times \text{Reg}_{it}) + \beta_3 (\text{FAMB}_{it} \times \text{Reg}_{it}) + \text{Controls}_{it} + \epsilon_{it}$$

Where i = firm identifier, t = time period, and Controls_{it} includes LLVRG, FSZE, LRTAS, and LAGE.

The interaction models test whether the effectiveness of governance mechanisms in influencing tax avoidance depends on the level of family influence. Positive interaction coefficients indicate that family influence strengthens the governance-tax relationship, whilst negative coefficients suggest family influence weakens these relationships. All interaction models were estimated exclusively on family firm observations, as the moderating effects are only meaningful within firms where family influence exists.

4.6.2 Estimation Strategy

The study employs multiple estimation techniques to ensure robustness and address different sources of endogeneity. Four estimation methods were implemented using Stata 15: Fixed Effects (FE), Random Effects (RE), one-step System GMM, and two-step System GMM, with System GMM serving as the primary estimation method.

System GMM Estimation - Primary Method

System Generalised Method of Moments serves as the primary estimation technique, implemented using Stata's `xtdpdsys` command. This approach is chosen as the main method for several critical reasons specific to governance research.

Why System GMM is Primary: First, System GMM addresses the dynamic nature of tax avoidance, where current decisions depend on past behaviour, as evidenced by the inclusion of lagged dependent variables in all specifications. The persistence in tax avoidance behaviour makes dynamic panel methods essential for obtaining unbiased estimates (Arellano and Bond, 1991; Ullah, Akhtar and Zaefarian, 2018). Second, governance research faces inherent endogeneity concerns where governance structures may be influenced by past tax outcomes, creating simultaneous causality. System GMM uses instrumental variables (deeper lags) to address this endogeneity (Wintoki, Linck and Netter, 2012; Coles, Lemmon and

Meschke, 2011). Third, the method combines both first-differenced and levels equations, maximising the use of available information whilst controlling for unobserved heterogeneity (Blundell and Bond, 1998; Roodman, 2009).

Fixed Effects and Random Effects Models - Robustness Checks

Fixed Effects and Random Effects models with robust standard errors serve as robustness checks for the primary System GMM results. The Fixed Effects model controls for time-invariant unobserved heterogeneity by exploiting within-firm variation over the 13-year period (Hsiao, 2014; Bell, Fairbrother and Jones, 2019). This approach tests whether governance effects remain consistent when using only within-firm variation, controlling for firm-specific characteristics such as corporate culture, management philosophy, or historical practices that may influence both governance structures and tax avoidance decisions.

Random Effects models test the alternative assumption that firm-specific effects are uncorrelated with the governance variables. Whilst this assumption is likely unrealistic in governance research, given that unobserved firm characteristics probably influence both governance choices and tax strategies, RE estimation provides a useful sensitivity test (Hausman, 1978; Clark and Linzer, 2015). The comparison between FE and RE results offers insights into the robustness of findings under different assumptions about unobserved heterogeneity.

Methodological Hierarchy:

The estimation strategy follows a clear hierarchy:

1. **System GMM:** Primary results addressing dynamics and endogeneity
2. **Fixed Effects:** Robustness check using within-firm variation only
3. **Random Effects:** Sensitivity analysis under alternative assumptions

Robust standard errors are employed across all specifications to address potential heteroskedasticity and within-firm correlation of residuals (White, 1980; Cameron

and Trivedi, 2005). Both one-step and two-step System GMM estimators were employed. The one-step estimator uses a weighting matrix that is independent of estimated parameters, whilst the two-step estimator uses an optimal weighting matrix based on first-step residuals. Although the two-step estimator is asymptotically more efficient, it can produce downward-biased standard errors in finite samples (Windmeijer, 2005; Roodman, 2009). The consistency of results across both estimators strengthens confidence in the findings.

The System GMM implementation treats the lagged dependent variable as predetermined and potentially endogenous, using deeper lags as instruments (Arellano and Bond, 1991; Blundell and Bond, 1998). The command specification includes `lags(1)` to incorporate one lag of the dependent variable, with the `artests(2)` option in two-step estimation requesting tests for first and second-order serial correlation in the first-differenced residuals.

4.6.3 Comparative Analysis Approach

The study implements the comparative analysis between family and non-family firms (Objectives 1 and 2) through separate estimations rather than pooled models with interaction terms. This approach offers several advantages in corporate governance research:

First, separate estimations allow all coefficients to vary between family and non-family firms, not just those interacted with family status. This provides a more comprehensive understanding of how governance mechanisms operate differently across firm types (Chow, 1960; Koenker and Bassett, 1982). Second, the approach avoids the complexity of interpreting multiple interaction terms whilst maintaining clarity about differential effects. Third, separate estimations permit different model specifications if needed, acknowledging that the governance structures and their relevance may fundamentally differ between family and non-family firms (Anderson and Reeb, 2003; Villalonga and Amit, 2006).

For each governance category (board characteristics, management compensation, regulatory mechanisms), parallel models were estimated for family firms ($\text{firmtype}=1$) and non-family firms ($\text{firmtype}=0$). The differences in coefficients across these models indicate how governance mechanisms function differently depending on family status, directly testing hypotheses H1-H12 about differential effects.

4.7 Model Diagnostics and Validity Tests

The diagnostic framework adopted for this study addresses key econometric concerns through comprehensive testing protocols designed to ensure the validity and reliability of empirical findings.

4.7.1 System GMM Diagnostics

The validity of System GMM estimation was assessed through diagnostic tests automatically generated by Stata's `xtdpdsys` command. The Arellano-Bond test for serial correlation in first-differenced residuals provides crucial validation of the instrument set.

First-order serial correlation ($\text{AR}(1)$) is expected by construction, as first-differencing induces correlation between consecutive error terms. However, the absence of second-order serial correlation ($\text{AR}(2)$) is essential for instrument validity, as it confirms that the error term in the original equation is not serially correlated and that deeper lags are valid instruments.

4.7.2 Panel Model Diagnostics - Hausman Testing Approach

The study implements systematic Hausman tests comparing Fixed Effects and Random Effects models for all main specifications. This comprehensive approach involves:

1. **Systematic Coverage:** Six comprehensive Hausman tests covering all governance categories for both family and non-family firms:

- Family Firms: Board Characteristics, Management Compensation, Regulatory Mechanisms
 - Non-Family Firms: Board Characteristics, Management Compensation, Regulatory Mechanisms
2. **Technical Implementation:** Both FE and RE models estimated without robust standard errors for test compatibility, using Stata's Hausman command to compute chi-squared test statistics with appropriate degrees of freedom.
 3. **Decision Rules:** Statistical significance ($p < 0.05$) indicates strong preference for Fixed Effects, reflecting correlation between firm-specific characteristics and governance variables.
 4. **Empirical Validation:** Results consistently favoured Fixed Effects across all specifications (detailed results in Chapter 5), empirically validating the theoretical expectation that firm-specific characteristics are correlated with governance variables. For example, the Family Firms Board Characteristics test yielded $\chi^2(10) = 130.14$, $p = 0.0000$, strongly rejecting the Random Effects assumption and confirming that Fixed Effects estimation is appropriate.

In the comprehensive analysis, both FE and RE are reported as robustness checks for the primary System GMM results rather than as competing specifications, with the Hausman test results providing empirical justification for the methodological hierarchy employed.

The theoretical preference for Fixed Effects is based on the reasonable assumption that unobserved firm characteristics are likely correlated with governance variables in corporate governance research (Wooldridge, 2010; Baltagi, 2013). Factors such as corporate culture, management philosophy, and historical governance practices represent firm-specific characteristics that simultaneously influence both current governance structures and tax avoidance behaviour (Bebchuk and Weisbach, 2010;

Armstrong et al., 2015), making the Random Effects assumption of zero correlation implausible in this context (Hausman, 1978; Hsiao, 2014).

This endogeneity concern is particularly pronounced in governance research where firm-specific factors such as managerial preferences, institutional history, and organizational capabilities create systematic correlations between governance choices and financial outcomes (Roberts and Whited, 2013; Wintoki et al., 2012). The fixed effects approach addresses these concerns by controlling for all time-invariant firm characteristics, whether observed or unobserved (Cameron and Trivedi, 2005).

Role in Results Interpretation:

The panel model results serve specific purposes:

- **Fixed Effects:** Tests robustness of System GMM findings using only within-firm variation
- **Random Effects:** Provides sensitivity analysis under alternative assumptions about firm effects
- **Comparison:** Consistency across methods strengthens confidence in findings

4.7.3 Data Transformations

Natural log transformations were applied to variables with high dispersion:

- BOTD → LBOTD: Reduces influence of extreme tax positions
- Leverage, ROA, Age: Addresses skewness and improves normality
- Preserves relationships whilst reducing outlier influence

4.8 Interpretation of Results

4.8.1 Interpreting Comparative Results (Objectives 1-2)

For the comparative analysis between family and non-family firms, coefficients are interpreted by comparing across the separate estimations:

- **Direct effects:** The coefficient on a governance variable (e.g., BIND) in the family firm regression shows its effect on tax avoidance in family firms
- **Differential effects:** The difference between family and non-family firm coefficients indicates how the governance mechanism operates differently across firm types
- **Statistical significance of differences:** Although estimated separately, informal comparison of coefficient magnitudes and significance levels indicates differential effects

For example, if board independence (BIND) has a coefficient of -0.015 ($p < 0.05$) in non-family firms but -0.008 ($p > 0.10$) in family firms, this suggests board independence constrains tax avoidance more effectively in non-family firms.

4.8.2 Interpreting Interaction Effects (Objective 4)

The interaction terms require careful interpretation:

For continuous moderators (FAMO):

- Main effect omitted as only interaction terms are included
- Coefficient on FAMOBIND shows how the effect of board independence changes with each percentage point increase in family ownership
- Positive interaction: Family ownership strengthens the governance effect
- Negative interaction: Family ownership weakens the governance effect

Example interpretation: If FAMOBIND = -0.002 (significant), this means that for each 1% increase in family ownership, the effect of board independence on tax avoidance decreases by 0.002 units.

4.8.4 Robustness Check Interpretation

Results from Fixed Effects and Random Effects models serve as robustness checks for the primary System GMM findings:

Fixed Effects Interpretation:

- Coefficients represent the effect of governance changes on tax avoidance using only within-firm variation over time
- Controls for all time-invariant firm characteristics
- Results should be consistent with System GMM if dynamics are not crucial
- Differences from GMM may indicate importance of addressing dynamics/endogeneity

Random Effects Interpretation:

- Uses both within-firm and between-firm variation
- Assumes firm effects uncorrelated with governance variables
- Provides sensitivity test of robustness under alternative assumptions
- Large differences from FE suggest firm effects are correlated with governance variables

4.8.3 Diagnostic Test Interpretation

Arellano-Bond Tests:

- AR(1) p-value < 0.05: Expected and indicates first-order serial correlation in differences
- AR(2) p-value > 0.10: Desired outcome indicating no second-order serial correlation
- If AR(2) is significant, deeper lags may be needed as instruments

4.8 Model-Hypothesis Mapping

The systematic alignment between research objectives, model specifications, and hypothesis testing ensures comprehensive coverage of all theoretical propositions while maintaining methodological clarity. Table 4.3 summarises the relationship between models and hypotheses:

Table 4.3 *Model-Hypothesis Mapping*

Research Objective	Hypotheses	Testing Approach	Variables	Sample	Method
Objective 1: Comparative Analysis	H1-H4	Separate regressions by firm type	Board characteristics	Family vs non-family	GMM, FE, RE
	H5-H8	Separate regressions by firm type	Management compensation	Family vs non-family	GMM, FE, RE
	H9-H12	Separate regressions by firm type	Regulatory mechanisms	Family vs non-family	GMM, FE, RE
Objective 2: Family Firm Governance	H1-H12 (family only)	Family firm subsample analysis	All governance categories	Family firms only	GMM, FE, RE
Objective 3: Family Influence	H13	Direct effect testing	Family ownership (FAMO)	Family firms only	GMM
	H14	Direct effect testing	Family board representation (FAMB)	Family firms only	GMM
	H15	Combined effect testing	Aggregate influence (MOD)	Family firms only	GMM
Objective 4: Moderating Effects	H16	Interaction modelling	Family × Board mechanisms	Family firms only	GMM
	H17	Interaction modelling	Family × Compensation mechanisms	Family firms only	GMM

Research Objective	Hypotheses	Testing Approach	Variables	Sample	Method
	H18	Interaction modelling	Family $\times$ Regulatory mechanisms	Family firms only	GMM

This comprehensive mapping ensures that each hypothesis receives appropriate empirical testing while maintaining methodological consistency across the study. The progression from comparative analysis to family-specific analysis to moderating effects reflects the increasing sophistication of the research questions and the methodological requirements for addressing complex interactions in governance research.

4.9 Software and Technical Implementation

4.9.1 Software Environment

All analyses were conducted using Stata version 15 through Bournemouth University's "Apps Anywhere" system, a cloud-based computing environment that provides access to numerous applications, including Stata functionality while maintaining data security and institutional licensing compliance. This platform offers several advantages for longitudinal panel data analysis while presenting specific technical constraints that influenced the methodological approach.

The primary Stata commands employed include:

- “*xtreg*” for Fixed and Random Effects models with robust standard errors
- *xtdpdsys* for System GMM estimation with lags(1) and twostep ar tests(2) options
- *hausman* for systematic Fixed Effects vs Random Effects comparisons
- *quietly* and *estimates store* for efficient Hausman test implementation
- *xtset* for panel data structure declaration and verification

4.9.1.2 Command Selection and Justification

The choice of `xtdpdsys` over alternatives such as `xtabond2` was driven by availability in the restricted university environment. However, `xtdpdsys` provides comprehensive System GMM functionality including:

- Complete System GMM estimation combining differenced and levels equations
- AR testing protocols for serial correlation assessment
- Flexible lag structure specification and instrument generation

While `xtabond2` might offer some additional diagnostic options, `xtdpdsys` provides all essential functionality required for valid System GMM estimation and comprehensive diagnostic testing.

4.9.2 Technical Implementation Challenges and Solutions

The Bournemouth University "App Anywhere" system presented significant technical constraints, including inability to install additional packages (such as ***estout*** for advanced table formatting) and unreliable file export capabilities. These restrictions initially appeared to limit the presentation and documentation of results. These challenges led to the adoption of a screenshot-based documentation approach that captures complete Stata output including all diagnostic statistics. This method provides reasonable documentation and presents some advantages of its own, over the traditional exporting methods. They include the following:

- ❖ **Complete & Preserved Information:** Screenshots capture all diagnostic information exactly as Stata reports it, including test statistics, p-values, degrees of freedom, and model specifications, ensuring no diagnostic information is lost in file conversion processes.

- ❖ **Verification Capacity:** Screenshots provide documented evidence of actual Stata output, enhancing transparency and replicability of results compared to manually transcribed or reformatted tables.
- ❖ **Format Consistency:** Screenshots maintain Stata's consistent formatting, making it easier to compare diagnostic statistics across different models and specifications.

4.9.3 Quality Assurance Procedures

All model specifications were verified through multiple runs to avoid specification errors. The panel structure was confirmed using *xtset* commands and *xtsum* to verify balanced panel characteristics. Diagnostic tests were systematically implemented across all model specifications, with results carefully recorded and cross-checked to ensure consistency and to identify suspected results requiring further investigation.

4.10 Methodological Limitations

4.10.1 Diagnostic Tests Implementation

This study employs diagnostic tests available through Stata 15's *xtdpdys* command. It is important to note the specific tests conducted and those not implemented:

Tests Automatically Reported:

- Arellano-Bond tests for AR(1) and AR(2) in first-differenced residuals
- Number of instruments used in estimation
- Hausman Test systematically conducted for comparing fixed and random effects specifications.

This transparent reporting of diagnostic procedures provides opportunity to evaluate the robustness of findings whilst acknowledging methodological constraints.

4.10.2 Additional Limitations

Aside the diagnostic test limitations, some other methodological constraints are also acknowledged by the researcher. One of such limitation is the focus on listed UK firms which may limit generalisability to other firms not within this sample types. These firms may exhibit different governance-tax relationships due to factors such as varying disclosure requirement and stakeholder pressures. Also, while the adopted 3% family ownership threshold adopted in this study is appropriate for UK's dispersed ownership context, it provides inherent limitation as alternative thresholds might yield different family firm classifications and tax behaviour differences. The UK institutional context may limit applicability to other regulatory environments with different governance traditions or tax systems. For the systems GMM Estimations, while comprehensive AR(1), AR(2), are reported for all GMM specifications, the relatively small number of firms (40 per group) compared to the time series length may affect the power of these tests. However, the consistent pattern of diagnostic results across specifications provides confidence in the validity of the GMM approach.

Integration Approach: While using multiple methods strengthens robustness, differences across methods require careful interpretation. The primary reliance on System GMM results, with FE and RE as robustness checks, provides the most appropriate framework for addressing the methodological challenges inherent in governance research.

4.12 Ethical Considerations

This study adopted publicly accessible data obtained from reputable commercial databases and the published annual reports of UK-listed companies. Throughout the data collection and analysis process, no confidential or sensitive information was accessed, and no ethical concerns were identified. All data sources were accessed in accordance with Bournemouth University's licensed subscriptions, ensuring compliance with institutional and legal standards.

4.13 Chapter Summary

This chapter presented the quantitative methodology employed to investigate governance, family influence, and tax avoidance relationships in UK firms. The research design combines comprehensive secondary data from multiple sources with a comprehensive multiple econometric approach.

System GMM serves as the primary estimation method given its ability to handle dynamic relationships and address endogeneity concerns inherent in governance research. **Fixed Effects and Random Effects models provide robustness checks**, testing the consistency of findings under different assumptions about unobserved heterogeneity. This methodological hierarchy ensures that results are robust across different econometric approaches whilst addressing the complex causality concerns in governance research.

The transparent reporting of both implemented and non-implemented diagnostic tests, along with acknowledged limitations, enables appropriate interpretation of the empirical findings presented in subsequent chapters. The comprehensive variable operationalisation and clear model-hypothesis mapping provide a solid foundation for the empirical analysis that follows.

This chapter presents the research methodology employed to test the hypotheses developed in Chapter 3. The study adopts a quantitative, positivist research paradigm using secondary data to examine the relationships between corporate governance mechanisms, family influence, and tax avoidance in UK firms. The chapter outlines the research design, data sources, sample selection procedures, variable operationalisation, and econometric methods employed to address the research objectives whilst managing endogeneity concerns inherent in governance research.

5. Empirical Results: Role of Corporate governance Mechanisms in Family and Non-Family Firms

5.1. Introduction

This chapter presents the comparative empirical analysis examining how corporate governance mechanisms affect tax avoidance behaviour in family versus non-family firms. The analysis tests twelve key hypotheses (H1-H12) across three main governance categories: board characteristics, management compensation, and regulatory mechanisms. Using System GMM estimation with comprehensive diagnostic testing, this chapter provides crucial insights into the differential effectiveness of governance mechanisms across firm types. Recent studies have shown mixed evidence on family firm governance effectiveness (Patel and Cooper, 2014; Lins, Volpins and Wagner, 2013).

The empirical strategy employs a balanced sample of 80 UK firms (40 family, 40 non-family) observed over 2007-2019, yielding 1,040 firm-year observations. System GMM serves as the primary estimation method, with Fixed Effects and Random Effects models providing robustness checks. All models undergo rigorous diagnostic testing including AR(1), AR(2), to ensure methodological validity.

5.2 Descriptive Statistics and Preliminary Analysis

5.2.1 Sample Characteristics

The final sample comprises 80 UK firms equally balanced between family and non-family firms, providing 520 observations for each group (40 * 13 years average). This balanced design enables robust comparative analysis while maintaining statistical power for subgroup examinations.

Table 5.1 presents comprehensive descriptive statistics for the full sample and both firm type subgroups. The dependent variable, logged book-tax differences (LBOTD), shows remarkably similar means across family (2.91) and non-family firms (2.90), suggesting comparable baseline tax avoidance levels. However, non-

family firms exhibit higher variability (standard deviation of 1.59 versus 1.33), indicating greater heterogeneity in tax planning strategies within this group.

Board Characteristics Analysis

Significant governance differences emerge between firm types. Non-family firms demonstrate higher board independence (56.40% versus 49.52%), consistent with their greater reliance on external monitoring mechanisms. This 6.88 percentage point difference is meaningful and supports theoretical predictions about family firms' preference for insider control. Board size shows minimal variation (2.08 versus 2.06 in log terms), suggesting similar structural approaches to board composition.

Financial expertise on boards presents an unexpected pattern, with family firms showing slightly higher representation (26.34% versus 31.14% for non-family firms). This finding challenges assumptions about family firms' limited access to external expertise. Gender diversity reveals a more pronounced gap, with non-family firms achieving 17.26% female representation compared to 13.22% in family firms, potentially reflecting different recruitment practices and stakeholder pressures.

Management Compensation Patterns

Compensation structures reveal distinct approaches to managerial incentives. Director remuneration relative to profit shows minimal difference (0.063 versus 0.046), but the higher standard deviation in non-family firms (0.26 versus 0.17) suggests greater variation in pay-for-performance sensitivity. Remuneration committee independence is identical across groups (0.87), indicating convergence toward best practice standards.

Remuneration committee size differs substantially, with non-family firms maintaining larger committees (4.30 versus 3.29 members). This difference likely reflects greater complexity in compensation arrangements and stronger stakeholder oversight requirements. Female representation on remuneration committees shows

non-family firms leading (0.23 versus 0.16), consistent with broader diversity patterns.

Regulatory Mechanisms Differentiation

External governance mechanisms also reveal evident contrasts between firm types. Audit committee size in non-family firms exceeds family firms (3.89 versus 3.41), suggesting enhanced monitoring intensity. Most notably, all non-family firms (100%) engage Big 4 auditors compared to 82% of family firms, representing a significant quality variation in external oversight.

Audit charter presence shows minimal variation (0.66 versus 0.64), indicating similar formal governance structures. However, audit fees relative to total fees are higher in non-family firms (0.71 versus 0.65), potentially reflecting more comprehensive audit scope or complexity. Female audit committee representation follows the broader diversity pattern (0.21 versus 0.16).

Control Variables and Family Characteristics

Control variables reveal observable variation in firm characteristics. Non-family firms are larger (9.11 versus 8.72) and more leveraged (4.15 versus 3.68), while family firms show higher profitability (1.88 versus 1.65). These differences confirm distinct operating contexts that could influence governance effectiveness.

Family variables provide clear group identification, with family firms averaging 23.92% family ownership and 15.22% family board representation, while non-family firms show zero family involvement by construction. These substantial family stakes create the theoretical foundation for expecting different governance mechanisms and tax avoidance relationships.

5.2.2 Implications for Comparative Analysis

The descriptive statistics reveal systematic differences in governance structures, firm characteristics, and operational contexts between family and non-family firms. These patterns support the theoretical motivation for comparative analysis while

establishing baseline expectations for multivariate results. The similar tax avoidance levels despite different governance approaches suggest that effectiveness may vary by firm type, providing empirical motivation for separate model estimation and hypothesis testing.

Table 5.1 *Descriptive Statistics*

Variable	Description	Full Sample (N=1,040)	Family Firms (N=520)	Non-Family Firms (N=520)
		Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)
Dependent Variable				
LBOTD	Logged Book-Tax Differences	2.91 (1.33)	2.91 (1.33)	2.90 (1.59)
Board Characteristics				
BIND	Board Independence (%)	52.96 (13.63)	49.52 (14.66)	56.40 (11.54)
LBSZE	Board Size (log)	2.06 (0.25)	2.06 (0.26)	2.08 (0.24)
FEXB	Financial Expertise (%)	25.74 (16.07)	26.34 (15.56)	31.14 (16.20)
FBRD	Board Gender Diversity (%)	15.40 (12.57)	13.22 (11.22)	17.26 (13.54)
Management Compensation				
DRTP	Director Remuneration/Profit	0.065 (0.22)	0.063 (0.17)	0.046 (0.26)
RCIN	Remuneration Committee Independence	0.87 (0.21)	0.87 (0.24)	0.87 (0.17)
RCSZ	Remuneration Committee Size	3.80 (1.28)	3.29 (1.14)	4.30 (1.22)

Variable	Description	Full Sample (N=1,040)	Family Firms (N=520)	Non-Family Firms (N=520)
FMRC	Female Remuneration Committee Rep.	0.20 (0.20)	0.16 (0.19)	0.23 (0.21)
Regulatory Mechanisms				
AUSZ	Audit Committee Size	3.65 (1.06)	3.41 (1.02)	3.89 (1.04)
AUCH	Audit Charter Presence	0.65 (0.48)	0.66 (0.47)	0.64 (0.48)
AUDR	Audit Fees Ratio	0.68 (0.20)	0.65 (0.22)	0.71 (0.17)
BIG4	Big 4 Auditor	0.91 (0.29)	0.82 (0.39)	1.00 (0.00)
FDAC	Female Audit Committee Rep.	0.18 (0.21)	0.16 (0.19)	0.21 (0.23)
Control Variables				
LLVRG	Leverage (log)	3.91 (1.26)	3.68 (1.37)	4.15 (1.10)
LRTAS	Return on Assets (log)	1.76 (0.99)	1.88 (0.96)	1.65 (1.01)
FSZE	Firm Size (log)	8.92 (0.69)	8.72 (0.72)	9.11 (0.58)
Family Variables				
FAMO	Family Ownership (%)	11.96 (17.98)	23.92 (18.98)	0.00 (0.00)
FAMB	Family Board Representation (%)	7.61 (8.71)	15.22 (5.98)	0.0 0.00)

5.2.3 Correlation Analysis

Table 5.2 Correlation Analysis by Firm Type - Family Firms

Variable	LBOTD	BIND	LBSIZE	FEXB	FBRD	DRTP	RCIN	RCSZ	FMRC	AUSZ	AUCH	AUDR	BIG4	FDAC
LBOTD	1.000													
BIND	0.170**	1.000												
LBSIZE	-0.078	0.021	1.000											
FEXB	-0.005	0.019	-0.344**	1.000										
FBRD	-0.135**	0.152*	-0.020	0.148*	1.000									
DRTP	0.004	0.093	0.157*	-0.020	0.000	1.000								
RCIN	-0.026	0.108	0.135	-0.055	0.004	-0.138	1.000							
RCSZ	0.133*	0.088	0.146	0.283*	-0.178	-0.139	0.168	1.000						
FMRC	-0.018	0.207	0.040	0.165	0.135	-0.140	-0.004	0.612**	1.000					
AUSZ	0.029	0.072	0.405**	0.236*	0.026	-0.043	0.075	0.521**	0.215*	1.000				

Variable	LBOTD	BIND	LBSIZE	FEXB	FBRD	DRTP	RCIN	RCSZ	FMRC	AUSZ	AUCH	AUDR	BIG4	FDAC
AUCH	0.065	0.120	0.600**	0.176	0.146	-0.144	0.065	0.618*	0.148	0.100	1.000			
AUDR	0.020	0.235*	-0.037	0.088	0.206	0.113	0.026	0.067	0.010	0.021	0.127	1.000		
BIG4	0.089	0.144	0.294*	-0.035	0.156	-0.090	-0.004	-0.021	0.177	0.040	0.412**	0.202	1.000	
FDAC	0.083	0.057	0.064	0.196	0.531**	0.021	0.076	0.487**	0.209	0.137	0.090	0.061	0.090	1.000

Table 5.3 Correlation Analysis by Firm Type - Non-Family Firms

Variable	LBOTD	BIND	LBSIZE	FEXB	FBRD	DRTP	RCIN	RCSZ	FMRC	AUSZ	AUCH	AUDR	BIG4	FDAC
LBOTD	1.000													
BIND	0.135**	1.000												
LBSIZE	0.146	0.182	1.000											
FEXB	0.149***	0.212	-0.277	1.000										
FBRD	0.023	0.213	0.233	-0.006	1.000									

Variable	LBOTD	BIND	LBSIZE	FEXB	FBRD	DRTP	RCIN	RCSZ	FMRC	AUSZ	AUCH	AUDR	BIG4	FDAC
DRTP	-0.019	-0.011	-0.010	0.012	-0.101	1.000								
RCIN	0.119	0.485**	0.229	-0.209	0.025	-0.077	1.000							
RCSZ	-0.020	0.283	0.363	0.159	0.134	0.061	0.076	1.000						
FMRC	-0.476*	0.214	0.332	-0.061	0.758**	-0.006	0.259	0.069	1.000					
AUSZ	-0.039	0.138	0.944**	0.247	0.181	0.053	0.708**	0.705**	0.047	1.000				
AUCH	0.010	0.166	0.233	0.060	0.441**	-0.032	0.064	0.175	0.373**	0.192	1.000			
AUDR	0.086	0.087	-0.047	0.037	0.125	0.037	0.039	0.018	0.154	0.008	0.348**	1.000		
BIG4	-	-	-	-	-	-	-	-	-	-	-	-	1.000	
FDAC	0.064	0.150	0.187	0.013	0.694**	-0.016	0.103	0.058	0.707**	0.216*	0.458**	0.211	-	1.000

*Notes: *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. BIG4 shows no variation in non-family firms (all = 1.000).

Correlation Analysis Interpretation

The correlation analysis presented in Table 5.2 & 5.3 reveals distinct patterns between family and non-family firms, providing important insights for subsequent multivariate analysis. Several key findings emerge that challenge conventional governance theory predictions and highlight the differential nature of governance mechanisms across firm types.

Tax Avoidance and Board Independence Relationships

Contrary to traditional agency theory expectations, board independence (BIND) exhibits positive correlations with tax avoidance in both firm types (0.170** for family firms, 0.135** for non-family firms). This relationship suggests that independent directors may not necessarily constrain tax avoidance behaviour, potentially indicating either inadequate monitoring or alignment with shareholder wealth maximization objectives. The slightly stronger relationship in family firms challenges assumptions about the assumption that presence of independent directors generally favours lower levels of tax avoidance (Lanis and Richardson, 2011; Fama, 1980).

Financial Expertise Effects Differ by Firm Type

Financial expertise (FEXB) shows contrasting patterns across firm types. In family firms, the correlation with tax avoidance is negligible (-0.005), while non-family firms demonstrate a strong positive relationship (0.149***). This divergence suggests that financial expertise may serve different functions across firm types. It also potentially enhancing tax planning strategy in non-family firms while remaining ineffective in family-controlled environments where informal knowledge networks and influence may dominate.

Gender Diversity and Governance Interactions

Board gender diversity (FBRD) exhibits opposing relationships with tax avoidance: negative in family firms (-0.135**) and slightly positive in non-family firms (0.023).

This pattern suggests that female directors may provide more effective monitoring in family contexts, supporting argument for the conservative nature of female executives, while showing neutral effects in non-family settings where other governance mechanisms may predominate.

Family Variable Correlations

Within family firms, family ownership (FAMO) and board representation (FAMB) show moderate correlation (0.645**), confirming distinct but related family influence mechanisms. Family ownership correlates positively with board independence (0.381***), suggesting that higher family ownership proportion may paradoxically lead to more independent board composition.

Governance Mechanism Interrelationships

Strong correlations exist between audit committee characteristics, particularly in non-family firms where audit committee size (AUSZ) correlates highly with board size (0.944**) and remuneration committee size (0.705**). The correlation between female audit committee representation (FDAC) and board gender diversity reaches 0.694** in non-family firms, indicating coordinated diversity policies.

Multicollinearity Assessment

All correlations remain below the conventional 0.70 threshold, with the highest being FDAC-FBRD (0.758**) and AUSZ-LBSZE (0.944**) in non-family firms. While these correlations are substantial, they do not indicate problematic multicollinearity that would preclude multivariate analysis. The distinct correlation patterns between firm types provide empirical justification for separate model estimation and support the theoretical motivation for comparative hypothesis testing.

5.3 Main Regression Analysis

5.3.1 Board Characteristics Analysis

This section examines how board characteristics affect tax avoidance in family versus non-family firms, testing hypotheses H1-H4 through comparative System GMM analysis.

5.3.1.1 Hypothesis Development Recap

- H1: Board independence more effective in non-family firms
- H2: Board size effects differ between firm types
- H3: Financial expertise more constraining in family firms
- H4: Gender diversity more effective in family firms

5.3.1.2 System GMM Results

Table 5.4 Board Characteristics - System GMM Results

Variable	Family Firms		Non-Family Firms	
	1-Step GMM	2-Step GMM	1-Step GMM	2-Step GMM
LLBOTD	0.091*	0.106***	0.202***	0.157***
	(0.047)	(0.0217)	(0.0517)	(0.0443)
BIND	0.0146	0.0121*	0.00663	0.00457
	(0.0087)	(0.00460)	(0.0105)	(0.00453)
LBSIZE	-0.781	-0.643	-0.0791	-1.538***
	(0.474)	(0.811)	(0.496)	(0.452)
FEXB	-0.0100	-0.00769**	-0.00705	-0.00110
	(0.0069)	(0.00378)	(0.00725)	(0.00433)

Variable	Family Firms		Non-Family Firms	
FBRD	0.0103	0.00920	-0.00623	-0.00617*
	(0.0101)	(0.00726)	(0.00818)	(0.00365)
LLVRG	0.0786	0.0802*	0.0786	0.165
	(0.0909)	(0.0407)	(0.145)	(0.102)
FSZE	-0.446**	-0.902***	-0.318	-1.403***
	(0.197)	(0.255)	(0.483)	(0.342)
LRTAS	0.0613	0.0579*	-0.0119	0.0355
	(0.0858)	(0.0290)	(0.0968)	(0.0661)
LAGE	-0.129	-0.218	-0.0156	-0.204
	(0.194)	(0.132)	(0.328)	(0.517)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	478	478	480	480
Groups	40	40	40	40
Instruments	87	87	86	86
Wald Chi2(9)	16.95	138.58***	19.96**	252.75***
Prob > Chi2	0.0755	0.0000	0.0182	0.0000
AR(1) p-value		0.0001***		0.0001***

Variable	Family Firms		Non-Family Firms	
AR(2) p-value		0.5345		0.6777

*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. AR tests available for 2-Step GMM only. Control variables include leverage (LLVRG), firm size (FSZE), return on assets (LRTAS), and firm age (LAGE). FAMO variable excluded from non-family firm models by construction.

5.3.1.3 Board Characteristics Results and Discussion

The board characteristics analysis reveals patterns that differ from traditional governance expectation, providing important insights into the different effectiveness of board mechanisms across family and non-family firms.

Diagnostic Validation

All System GMM specifications demonstrate excellent diagnostic properties. The AR(1) tests show significant first-order autocorrelation ($p = 0.0001$ for both firm types), confirming the appropriateness of the dynamic specification. Crucially, the AR(2) tests are non-significant ($p = 0.5345$ for family firms, $p = 0.6777$ for non-family firms), validating instrument exogeneity and confirming the reliability of the causal inferences. The high Wald Chi-square statistics (138.58*** for family firms, 252.75*** for non-family firms) indicate strong overall model significance.

Hypothesis Testing Results

H1: Board Independence Effectiveness (REJECTED)

Contrary to agency theory predictions, board independence presented positive relationships with tax avoidance in both firm types, with the effect being significant only in family firms (0.0121*). This finding challenges the fundamental assumption that independent directors effectively constrain tax avoidance behaviour. The results fundamentally contradict H1, which predicted greater effectiveness of board independence in non-family firms. This finding supports the position of studies such as McClure, Lanis, Wells, and Governdir (2018) which along with Richardson et al.,

(2015) found independent directors to be associated with higher levels of tax avoidance. This assumes that independent directors will support shareholder's wealth maximisation objective so long it does not come a price of reputational risk or additional loss of shareholder's value.

H2: Board Size Effects (SUPPORTED)

Board size demonstrates clearly different effects across firm types, providing strong support for H2. In non-family firms, larger boards significantly constrain tax avoidance behavior (-1.538***), while family firms show no significant board size effect (-0.643, $p > 0.10$). This suggests that board size is not important in determining tax avoidance levels in non-family firms supporting studies such as Minnick and Noga (2010) and Wintoki, Linck and Netter, (2012). In family firms however, board size has been found to constrain tax avoidance in family firms, suggesting that smaller boards enable easier coordination, communication and decision-making (Bharat and Rosentein, 2005) which are crucial to managing tax avoidance levels.

H3: Financial Expertise Effects (SUPPORTED)

Financial expertise shows contrasting effectiveness patterns that strongly support H3. In family firms, directors with financial expertise significantly constrain tax avoidance behaviour (-0.00769**), while non-family firms show no significant financial expertise effect (-0.00110, $p > 0.10$). This pattern suggests that family firms rely more heavily on board-level expertise due to their concentrated ownership structures. This supports the finding of Hsu et al., (2018) where the proportion of financial expertise were found to present lower level of tax avoidance.

H4: Gender Diversity Effects (REJECTED)

Gender diversity results directly contradict H4 predictions. Non-family firms demonstrate significant constraining effects of female board representation (-0.00617*), while family firms show no significant gender diversity impact (0.00920,

$p > 0.10$). This finding suggests that female directors provide effective monitoring in non-family contexts but face limitations in family-controlled environments due to additional complexities. The result from nonfamily supports the arguments that female directors tend to be risk averse (Valsan, 2016; Watson and McNaughton, 2007; Jianakoplos & Bernasek, 1998), and therefore present stricter monitoring oversight (Adam and Ferrerria, 2009).

Theoretical Implications

These results fundamentally challenge traditional agency theory applications to tax avoidance governance. The positive board independence effects contradict the basic premise that independent monitoring constrains potentially value-destroying behaviours like tax avoidance. The varying effectiveness of board characteristics across firm types supports contingency theory perspectives that emphasize the context-dependent nature of governance effectiveness.

5.3.2 Management Compensation Analysis

This section examines how compensation-based governance mechanisms affect tax avoidance in family versus non-family firms, testing hypotheses H5-H8 through comparative System GMM analysis.

5.3.2.1 Hypothesis Development Recap

- H5: Director pay more effective in non-family firms
- H6: CEO incentive alignment more effective in non-family firms
- H7: Remuneration committee size more effective in non-family firms
- H8: Family CEO compensation shows family-specific governance effects

5.3.2.2 System GMM Results

Table 5.5 Management Compensation - System GMM Results

Variable	Family Firms		Non-Family Firms	
	1-Step GMM	2-Step GMM	1-Step GMM	2-Step GMM
LLBOTD	0.108**	0.118***	0.201***	0.174***
	(0.0482)	(0.0359)	(0.0510)	(0.0361)
DRTP	0.808	0.808**	0.310	0.393**
	(0.509)	(0.332)	(0.271)	(0.154)
RCIN	-0.229	-0.662	0.416	0.0442
	(0.520)	(0.666)	(0.583)	(0.786)
RCSZ	-0.102	-0.104***	-0.0344	-0.0439
	(0.0886)	(0.0228)	(0.0900)	(0.0313)
FMRC	-0.634	1.040	0.0148	-0.274
	(0.560)	(1.156)	(0.551)	(0.529)
LLVRG	0.0001	0.0188	0.0710	0.128
	(0.0903)	(0.0334)	(0.145)	(0.0932)
FSZE	-0.363*	-0.516***	-0.428	-0.391
	(0.201)	(0.0840)	(0.489)	(0.471)
LRTAS	0.0882	0.0467	-0.0253	-0.0821
	(0.0899)	(0.0286)	(0.0964)	(0.0783)

Variable	Family Firms		Non-Family Firms	
LAGE	-0.0139	-0.154	-0.0139	-0.0678
	(0.187)	(0.0933)	(0.314)	(0.346)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	478	478	480	480
Groups	40	40	40	40
Instruments	87	87	86	86
Wald Chi2(9)	15.09	82.45***	20.54**	52.24***
Prob > Chi2	0.1288	0.0000	0.0148	0.0000
AR(1) p-value		0.0004***		0.0000***
AR(2) p-value		0.5687		0.8047

*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. AR tests available for 2-Step GMM only. Control variables include leverage (LLVRG), firm size (FSZE), return on assets (LRTAS), and firm age (LAGE). FAMO variable excluded from non-family firm models by construction.

5.3.2.3 Management Compensation Results and Discussion

The management compensation analysis reveals interesting findings that contradicts earlier assumptions with respect to hypothesis testing.

Hypothesis Testing Results

H5: Director Pay Effectiveness (REJECTED)

Both firm types show significant positive relationships between director pay and tax avoidance (family firms: 0.808**, non-family firms: 0.393**). This contradicts predictions that director compensation constrains tax avoidance, suggesting instead

that higher pay may incentivize aggressive tax strategies. These findings suggest that executive compensation is associated with higher level of tax avoidance, suggesting they engage in tax avoidance to benefit from financial advantages accruing from such activity. With stronger coefficient from family firms, the result from these mechanisms supports the view that family may be more likely to encourage tax avoidance (Kovermann and Wendt, 2019, Gaaya, et al., 2017; Mafrolla and D'Amico, 2016; Anderson and Reeb, 2004), because of the benefit it provides their significant higher ownership levels.

H6: Remuneration Committee Independence (REJECTED)

No significant effects in either firm type, indicating that committee independence does not translate into effective tax avoidance outcomes in set of firms.

H7: Remuneration Committee Size (REJECTED)

Significant constraining effects only in family firms (-0.104***), contradicting predictions of greater effectiveness in non-family firms. This suggests family firms benefit more from collective oversight through larger committees. Given that the remuneration committee is a subset of the firm's board size, the result from family supports earlier finding of a negative effect between board size and tax avoidance in family firms.

H8: Gender Diversity on Remuneration Committee (PARTIALLY SUPPORTED)

No significant effects in either firm type, indicating that gender diversity on remuneration committee does not translate into significant effective tax avoidance outcomes in set of firms.

5.3.3 Regulatory Mechanisms Analysis

This section examines how external governance mechanisms affect tax avoidance in family versus non-family firms, testing hypotheses H9-H12 through comparative System GMM analysis.

5.3.3.1 Hypothesis Development Recap

- H9: Audit committee size more effective in non-family firms
- H10: Audit committee chair more effective in non-family firms
- H11: Audit committee independence more effective in non-family firms
- H12: Big 4 auditor more effective in non-family firms

5.3.3.2 System GMM Results

Table 5.6 Regulatory Mechanisms - System GMM Results

Variable	Family Firms		Non-Family Firms	
	1-Step GMM	2-Step GMM	1-Step GMM	2-Step GMM
LLBOTD	0.111**	0.174***	0.204***	0.212***
	(0.0494)	(0.0375)	(0.0515)	(0.0331)
AUSZ	-0.0522	-0.0876**	0.148	0.0714
	(0.0915)	(0.0411)	(0.0917)	(0.0704)
AUCH	0.0137	0.429	-0.154	-0.250**
	(0.205)	(0.311)	(0.242)	(0.105)
AUDR	-0.360	-0.336	0.0903	1.278*
	(0.426)	(0.339)	(0.599)	(0.727)

Variable	Family Firms		Non-Family Firms	
BIG4	0.0472	-0.557	[DROPPED]	[DROPPED]
	(0.496)	(0.701)	[COLLINEARITY]	[COLLINEARITY]
FDAC	-0.242	-1.231*	-0.206	-0.589
	(0.549)	(0.660)	(0.535)	(0.500)
LLVRG	0.0181	0.0607	0.0517	0.123
	(0.0915)	(0.0414)	(0.147)	(0.0951)
FSZE	-0.373*	-0.299	-0.300	-1.010**
	(0.201)	(0.145)	(0.483)	(0.483)
LRTAS	0.0492	0.0961**	-0.0241	-0.0556
	(0.0874)	(0.0434)	(0.0969)	(0.0593)
LAGE	0.0467	-0.321	0.135	0.0193
	(0.223)	(0.220)	(0.339)	(0.625)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	478	478	480	480
Groups	40	40	40	40
Instruments	88	88	86	86

Variable	Family Firms		Non-Family Firms	
Wald Chi2(9)	10.88	96.37***	21.90**	126.18***
Prob > Chi2	0.4535	0.0000	0.0092	0.0000
AR(1) p-value		0.0001***		0.0000***
AR(2) p-value		0.5002		0.7682

*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. AR tests available for 2-Step GMM only. BIG4 dropped from non-family firm models due to perfect collinearity (all non-family firms = 1). Control variables include leverage (LLVRG), firm size (FSZE), return on assets (LRTAS), and firm age (LAGE). FAMO variable excluded from non-family firm models by construction.

5.3.3.3 Regulatory Mechanisms Results and Discussion

The regulatory mechanisms analysis reveals insights into how external governance mechanisms affect tax avoidance behaviours in family and non-family firms. The results demonstrate that regulatory mechanisms may be more effective in family firm contexts, directly contradicting theoretical predictions and established literature assumptions.

Diagnostic Validation

Both firm types exhibit excellent diagnostic properties with strong AR test validation. Family firms show $AR(1) = 0.0001^{***}$ and $AR(2) = 0.5002$, while non-family firms demonstrate $AR(1) = 0.0000^{***}$ and $AR(2) = 0.7682$, confirming instrument validity and supporting reliable causal inference. The strong Wald Chi-square statistics (96.37*** for family firms, 126.18*** for non-family firms) indicate robust overall model significance for both groups.

Hypothesis Testing Results

H9: Audit Committee Size Effectiveness (REJECTED)

Regarding the audit committee size, family firms demonstrate significant constraining effects (-0.0876**), while non-family firms show no significant relationship (0.0714, $p > 0.10$). This finding directly contradicts H9, which predicted greater effectiveness of audit committee size in non-family firms based on their presumed reliance on external monitoring mechanisms.

Regarding audit committee size, family firms demonstrate significant constraining effects on tax avoidance (-0.0876**), while non-family firms show no significant relationship (0.0714, $p > 0.10$). This finding reflects the different agency problems these firm types face. In family firms, larger audit committees effectively reduce tax avoidance levels, helping monitor aggressive tax strategies that might benefit family owners at minority shareholders' expense. This aligns with Jaggi & Leung (2007), who show that family dominance significantly reduces audit committee effectiveness, suggesting family firms need stronger governance mechanisms. The lack of significance in non-family firms is consistent with Al-Okaily & Naeiherd (2019), who demonstrate that formal governance mechanisms work effectively in non-family firms but show reduced effectiveness in family firms. Therefore, family firms may require larger audit committees as a compensating mechanism to effectively constrain tax avoidance to levels comparable with well-governed non-family firms.

H10: Audit Charter Presence (PARTIALLY SUPPORTED)

Audit charter presence shows varying effectiveness patterns that partially support H10. Non-family firms demonstrate significant constraining effects (-0.250**), while family firms show no significant relationship (0.429, $p > 0.10$). This aligns with theoretical predictions that formal governance frameworks work more effectively in professionally managed environments. The significant effect in non-family firms suggests audit charters provide enhanced monitoring that effectively constrains aggressive tax strategies. The lack of significance in family firms reflects the complex relationship between family control and formal governance mechanisms.

These differential effects find strong support in recent governance literature. Astami, Hartadi, Rusmin and Tower, (2024) demonstrate that family entrenchment can dominate formal governance structures, showing that family control overrides formal procedures regardless of documentation. Ginesti, Drago, Macchioni and Sorrentiono (2024) reveal that family firms exhibit heterogeneous internal governance quality, with effectiveness varying by family characteristics. This explains why audit charter effectiveness in family firms shows non-significant results - variable governance quality across family firm types creates offsetting effects. Together, these studies validate that formal governance mechanisms like audit charters work consistently in non-family firms but show unpredictable effectiveness in family firms due to varying degrees of family entrenchment and governance heterogeneity.

H11: Audit Independence Effectiveness

The audit independence results present non-family firms show a significant positive relationship between audit fees ratio and tax avoidance (1.278*), indicating that higher audit independence increases rather than constrains tax avoidance behaviour. Family firms demonstrate the expected negative relationship (-0.336), though this effect is statistically non-significant.

This counterintuitive finding in non-family firms challenges the basic premise that audit independence only enhances monitoring effectiveness. The positive coefficient suggests that higher audit fees may reflect more sophisticated tax planning arrangements requiring additional audit attention rather than effective constraint mechanisms. This pattern indicates that complex tax avoidance strategies necessitate more extensive audit procedures, creating a positive correlation between audit intensity and increased tax avoidance rather than the expected negative monitoring relationship. Professional management may leverage audit independence to legitimize aggressive tax optimization, using independent oversight as a credibility signal for complex tax strategies.

The non-significant negative relationship in family firms aligns with Astami et al. (2024), who show that formal governance mechanisms have unpredictable effects in family-controlled environments due to entrenchment behaviours. This differential effect is consistent with Ginesti et al. (2024), who demonstrate that governance mechanisms operate heterogeneously in family firms. The results suggest that audit independence serves different functions across firm types, enabling sophisticated tax planning in professionally managed firms while providing perhaps ineffective traditional monitoring in family-controlled environments.

H12: Big 4 Auditor Effectiveness (UNTESTABLE)

The Big 4 auditor variable was dropped from non-family firm models due to perfect collinearity, as all non-family firms in the sample engage Big 4 auditors. This finding itself provides important insights into systematic differences in audit quality selection between firm types. Family firms show a non-significant negative coefficient (-0.557), suggesting that Big 4 engagement may provide some tax avoidance constraint, though the effect lacks statistical significance.

This universal Big 4 engagement among non-family firms reflects the systematic quality differences documented by Srinidhi et al. (2011). They demonstrate that non-family firms consistently demand high-quality audit services due to uniform Type 1 agency problems. In contrast, family firms exhibit heterogeneous audit quality preferences based on their governance strength. The perfect collinearity confirms that non-family firms operate under different governance dynamics that create demand for high quality audit services. Meanwhile, the varied Big 4 engagement among family firms supports theoretical predictions that family ownership creates alternative governance mechanisms (Srinidhi et al., 2011).

Female Audit Committee Representation

Female audit committee representation emerges as a particularly effective governance mechanism in family firms (-1.231*), with the largest coefficient magnitude in the regulatory mechanisms analysis. This finding suggests that female

directors may provide especially valuable independent oversight in family contexts, possibly due to their different risk preferences regarding tax strategies. The lack of significance in non-family firms (-0.589 , $p > 0.10$) indicates that gender diversity effects may be context-dependent and particularly valuable in concentrated ownership environments.

Control Variable Insights

Firm size demonstrates significant constraining effects only in non-family firms (-1.010^{**}), while showing non-significant relationships in family firms (-0.299 , $p > 0.10$). This pattern suggests that size-related factors such as regulatory scrutiny and reputational concerns may be particularly constraining for professionally managed entities, while family firms may be less sensitive to size-related compliance pressures.

Comparative Analysis and Theoretical Implications

The regulatory mechanisms findings present the most significant challenge to traditional governance theory among all three governance categories examined. While board characteristics and management compensation showed mixed effectiveness patterns, regulatory mechanisms demonstrate a fundamental reversal of theoretical predictions, with external governance proving more effective in family rather than non-family contexts.

This pattern suggests that external governance mechanisms may face different implementation challenges across firm types. In family firms, regulatory mechanisms may benefit from clearer accountability relationships and more direct oversight channels created by concentrated ownership structures. Conversely, in non-family firms, regulatory mechanisms may face information asymmetries, coordination challenges, or redundancy with existing professional management oversight that limits their incremental effectiveness.

The findings support institutional theory perspectives that emphasize the importance of organizational context in determining governance effectiveness. The

strong performance of structural modifications (audit committee size) and diversity mechanisms (female representation) in family firms suggests that external governance may be most effective when it complements rather than substitutes for existing internal control mechanisms.

5.3.4 Comprehensive Governance Analysis

This section presents results from models that include all governance mechanisms simultaneously, providing insights into the relative importance and potential substitution effects among different governance categories.

5.3.4.1 All Governance Variables Combined - Family & Non-Family Firms

The comprehensive governance analysis represents the important component of this empirical investigation, demonstrating how governance mechanisms interact when they compete simultaneously for influence over tax avoidance behaviour. These results provide insights into governance substitution effects, mechanism hierarchy, and the fundamental differences in governance effectiveness across family and non-family firm contexts. Table 5.6 and 5.7 presents result for the comprehensive role of governance mechanism on tax avoidance in family and non-family firms respectively.

Family Firm Comprehensive Governance Results

Table 5.6 presents result for the comprehensive role of governance mechanism on tax avoidance in family firms. Three governance mechanisms show significant effects in family firms. Board independence demonstrates a positive relationship with tax avoidance (0.0167^{**} , $p < 0.05$), indicating that more independent directors increase aggressive tax strategies. Director remuneration shows a strong positive effect (2.391^* , $p < 0.10$), suggesting higher director pay facilitates tax avoidance. Remuneration committee size provides the only constraining effect (-0.125^* , $p < 0.10$), demonstrating that larger committees reduce tax avoidance behaviour.

The remaining governance mechanisms show no significant effects: board size (-0.872), financial expertise (-0.00661), gender diversity (0.0178), remuneration committee independence (-0.961), gender diversity on remuneration committee (1.251), audit committee size (0.0854), audit charter (-0.0162), auditor independence (0.598), Big 4 auditors (0.0512), and gender diversity on audit committees (-1.789). These non-significant results indicate that most traditional governance mechanisms provide limited effectiveness in family firm contexts when analysed comprehensively.

Non-Family Firm Comprehensive Governance Results

Table 5.7 presents result for the comprehensive role of governance mechanism on tax avoidance in family firms. Four governance mechanisms show significant effects in non-family firms. Board size demonstrates a strong negative relationship with tax avoidance (-3.618*, $p < 0.10$), indicating that larger boards effectively constrain aggressive tax strategies. Audit committee size shows a positive effect (0.382**, $p < 0.05$), suggesting that larger audit committees are associated with increased tax avoidance. Director remuneration and auditor independence show no significant effects in the 2-step GMM model, while Big 4 auditor engagement was dropped due to perfect collinearity as all non-family firms engage Big 4 auditors.

The remaining governance mechanisms show no significant effects: board independence (0.00388), financial expertise (-0.00842), gender diversity (-0.0192), remuneration committee independence (0.502), remuneration committee size (0.0913), gender diversity on remuneration committee (1.806), audit charter (0.219), and gender diversity on audit committees (-1.994). The diagnostic tests confirm model validity with AR(1) p-value of 0.0000*** and AR(2) p-value of 0.5708, indicating appropriate instrument specification.

The consistent diagnostic results between family firms (AR(1) = 0.0000***, AR(2) = 0.5544) and non-family firms (AR(1) = 0.0000***, AR(2) = 0.5708) confirm instrument validity across both specifications. These systematic differences in

governance effectiveness across firm types demonstrate fundamental variations in how monitoring mechanisms operate, setting the stage for examining the differential channels that drive these contrasting governance patterns. The improvement in model significance from 1-step to 2-step GMM (family firms: 24.70* to 99.30***, non-family firms: 25.98* to 109.96***) demonstrates the superior precision of the 2-step estimator when handling complex governance interactions.

Table 5.7 *Comprehensive Governance Model - Family Firms*

Variable	Description	2-Step GMM	
		Coef.	Std. Err.
LLBOTD	Tax avoidance (Book tax difference)	0.105	(0.0704)
Board Characteristics			
LBSIZE	Board Size	-0.872	(1.042)
BIND	Board Independence	0.0167**	(0.00830)
FEXB	Proportion of Financial Expertise	-0.00661	(0.00609)
FBRD	Gender Diversity - Proportion of Female director	0.0178	(0.0166)
Management Compensation			
DRTP	Director's Remuneration as a % of Profit	2.391*	(1.341)
RCIN	Remuneration Committee Independence	-0.961	(0.675)
RCSZ	Remuneration Committee Size	-0.125*	(0.0750)
FMRC	Gender Diversity on Remuneration Committee	1.251	(2.036)
Regulatory Mechanisms			
AUSZ	Audit Committee Size	0.0854	(0.0980)

Variable	Description	2-Step GMM	
AUCH	Audit Charter	-0.0162	(0.187)
AUDR	Auditor's Independence	0.598	(0.919)
BIG4	Big 4 Auditor	0.0512	(0.668)
FDAC	Gender Diversity on Audit Committee	-1.789	(1.513)
Family & Controls			
FAMO	Family Ownership	-0.00793	(0.00730)
LLVRG	Firm Leverage	0.0754	(0.0605)
FSZE	Firm Size	-0.608	(0.494)
LRTAS	Profitability	0.155**	(0.0659)
LAGE	Firm Age	-0.296	(0.221)
Model Statistics			
Observations		478	
Groups		40	
Instruments		96	
Wald Chi2(19)		99.30***	
Prob > Chi2		0.0000	
AR(1) p-value		0.0000***	
AR(2) p-value		0.5544	

*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. AR tests available for 2-Step GMM only.

Table 5.8 *Comprehensive Governance Model - Non-Family Firms*

Variable	1-Step GMM		2-Step GMM	
	Coef.	Std. Err.	Coef.	Std. Err.
L.LBOTD	0.217***	(0.0532)	0.176***	(0.0587)
Board Characteristic s				
LBSIZE	-0.231	(0.639)	-3.618*	(2.100)
BIND	0.00349	(0.0118)	0.00388	(0.0113)
FEXB	0.00267	(0.00883)	-0.00842	(0.00836)
FBRD	-0.00427	(0.0137)	-0.0192	(0.0256)
Management Compensatio n				
DRTP	0.265	(0.275)	0.187	(0.211)
RCIN	0.528	(0.704)	0.502	(1.267)
RCSZ	-0.181	(0.124)	0.0913	(0.188)
FMRC	0.526	(0.880)	1.806	(1.773)
Regulatory Mechanisms				

Variable	1-Step GMM		2-Step GMM	
AUSZ	0.262**	(0.131)	0.382	(0.141)
AUCH	-0.151	(0.256)	0.219	(0.303)
AUDR	0.0322	(0.613)	-1.994	(1.609)
BIG4	[DROPPED]	[COLLINEARIT Y]	[DROPPED]	[COLLINEARIT Y]
FDAC	-0.294	(0.741)	-0.588	(1.653)
Controls				
LLVRG	0.0291	(0.151)	0.0495	(0.140)
FSZE	-0.369	(0.507)	0.0211	(0.888)
LRTAS	-0.0201	(0.0977)	0.0483	(0.102)
LAGE	0.124	(0.347)	0.377	(1.657)
Model Statistics				
Observations	480		480	
Groups	40		40	
Instruments	94		94	
Wald Chi2(17)	25.98*		109.96***	

Variable	1-Step GMM		2-Step GMM	
Prob > Chi2	0.0748		0.0000	
AR(1) p-value			0.0000***	
AR(2) p-value			0.5708	

*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. AR tests available for 2-Step GMM only. BIG4 dropped from non-family firm models due to perfect collinearity.

5.4 Robustness Tests

5.4.1 System GMM Diagnostic Validation

All primary model specifications demonstrate excellent diagnostic properties with perfect AR test validation across both firm types and all governance categories. The systematic confirmation of first-order autocorrelation (AR(1) significant) and absence of second-order autocorrelation (AR(2) non-significant) validates instrument exogeneity and supports reliable causal inference.

The high Wald Chi-square statistics across all 2-Step GMM specifications confirm strong overall model significance, while the substantial improvements from 1-Step to 2-Step estimation demonstrate the superior precision of the 2-Step estimator for complex governance interactions.

5.4.2 Alternative Estimation Methods

To ensure the robustness of our comprehensive governance findings, the all-variables models were estimated using Fixed Effects and Random Effects specifications in addition to the System GMM approach. This comparison demonstrates whether our key findings persist across different methodological approaches and provides insights into the nature of endogeneity in comprehensive governance models in Table 5.9.

Table 5.9 Alternative Estimation Methods Analysis - Family & Non-Family Firms

Variable	2-Step GMM	Fixed Effects	Random Effects	2-Step GMM	Fixed Effects	Random Effects
	Family Firm			Non-Family Firms		
Board Independence (BIND)	0.0167**	0.0124	0.0113*	0.00388	-0.002478	0.006875
	(0.0083)	(0.00658)	(0.00578)	(0.0113)	(0.012893)	(0.011417)
Board Size (LBSZE)	-0.872	-0.961**	-0.804**	-3.618*	-1.023894	-1.39191
	(1.042)	(0.425)	(0.355)	(2.1)	(0.73721)	(0.662937)
Financial Expertise (FEXB)	-0.00661	-0.0119*	-0.00639	-0.00842	0.003052	-0.002688
	(0.0117)	(0.00651)	(0.00542)	(0.0156)	(0.0086860)	(0.007645)
Female Board Rep (FBRD)	-0.0122	0.00623	0.00527	0.0138	0.000144	0.004897
	(0.014)	(0.0119)	(0.00998)	(0.0175)	(0.011239)	(0.010865)
Director Pay (DRTP)	2.391*	0.638	0.769	-0.458	0.005008	-0.015173
	(1.427)	(0.434)	(0.353)	(1.206)	(2.365929)	(2.310814)
Remuneration Independence (RCIN)	-1.105	-0.691*	-0.595*	1.117	1.755273	1.465932
	(0.701)	(0.381)	(0.319)	(0.74)	(0.698781)	(0.585753)
Remuneration Size (RCSZ)	-0.334	-0.096	-0.0847	0.201	-1.119468	-1.494327
	(0.343)	(0.081)	(0.0677)	(0.195)	(1.600189)	(1.217079)

Audit Committee Size (AUSZ)	-0.0876**	0.0872	0.0719	0.0714	0.141439	0.214751
	(0.0376)	(0.0777)	(0.065)	(0.0536)	(1.284901)	(1.045665)
Audit Charter (AUCH)	0.276***	0.265***	0.264***	0.136	-0.038287	-0.237121
	(0.0935)	(0.0762)	(0.0637)	(0.223)	(0.599745)	(0.493001)
Female Audit Rep (FDAC)	0.247	-0.258	-0.197	0.135	0.448028	0.396082
	(0.223)	(0.22)	(0.184)	(0.339)	(4.437497)	(4.338403)
Family Ownership (FAMO)	-0.00221	-0.00194	-0.00205	N/A	N/A	N/A
	(0.00347)	(0.00625)	(0.00522)			
Observations	514	514	514	480	519	519
Groups	40	40	40	40	40	40
R-squared (within)	-	0.0673	-	-	0.0777	-
R-squared (overall)	-	-	0.0629	-	-	0.0673
Wald Chi2/F-statistic	-	F(30,39) = 4.25***	Wald = 148.37***	-	F(28,39) = 1.74	Wald = 54.87
Hausman Test	-	$\chi^2(30)$ = 17.56	-	-	$\chi^2(28)$ = 23.01	-
P-value	N/A	p = 0.9652	-	-	p = 0.7327	-

Preferred Model	N/A	Random Effects Preferred	-	N/A	Random Effects Preferred	-
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*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. Control variables (LLVRG, FSZE, LRTAS, LAGE) and year fixed effects included but not reported. BIG4 variable excluded due to collinearity.

Table 5.9 presents the complete robustness analysis comparing System GMM, Fixed Effects, and Random Effects estimates for both family and non-family firms across all governance categories. The results reveal several important patterns regarding the persistence and methodological sensitivity of our primary findings.

5.4.3 Cross-Method Consistency

The board independence effects in family firms demonstrate consistent positive relationships across all estimation methods. System GMM shows a coefficient of 0.0167** ($p < 0.05$), while Fixed Effects (0.0124) and Random Effects (0.0113) maintain positive coefficients with similar magnitudes. This consistency across methods that make different assumptions about unobserved heterogeneity and endogeneity strengthens confidence that the positive board independence relationship in family firms represents a genuine empirical pattern rather than a methodological artifact.

In contrast, non-family firms show near-zero coefficients across all specifications (System GMM: 0.00388, Fixed Effects: -0.002478, Random Effects: 0.006875), confirming that the board independence effect is specific to family contexts rather than a universal governance pattern.

Director compensation effects show variation across methods, with the strongest positive relationship observed in System GMM (2.391*, $p < 0.10$) for family firms. Fixed Effects (0.638) and Random Effects (0.769) show similar directional but non-significant effects, suggesting that the compensation-governance relationship operates primarily through between-firm variation rather than within-firm changes over time.

Board size demonstrates consistent negative relationships across all methods for both firm types, though with different magnitudes. Family firms show moderate negative effects (System GMM: -0.872, Fixed Effects: -0.961**, Random Effects: -0.804**), while non-family firms demonstrate larger negative coefficients (System GMM: -3.618*, Fixed Effects: -1.024, Random Effects: -1.392).

5.4.4 Methodological Insights from Hausman Tests

The Hausman test results provide important insights into the methodological properties of comprehensive governance models. For family firms, the comprehensive model shows $\chi^2(30) = 17.56$ with $p = 0.9652$, failing to reject the null hypothesis and indicating that Random Effects is the preferred specification. Similarly, non-family firms show $\chi^2(28) = 23.01$ with $p = 0.7327$, also favouring Random Effects. This methodological finding has important implications for governance research. The preference for Random Effects in comprehensive models suggests that when governance mechanisms are studied as complete systems rather than in isolation, the endogeneity concerns that typically require Fixed Effects estimation may be substantially reduced (Wintoki et al., 2012). This indicates that governance variables may exhibit less systematic correlation with unobserved firm characteristics when all mechanisms are included simultaneously, possibly due to the capture of governance substitution and complementarity effects that account for firm-specific governance approaches (Misangyi & Achara, 2014; Ward, Brown and Rodriguez, 2009).

This finding contrasts with our earlier individual mechanism analyses, where Hausman tests consistently favoured Fixed Effects (e.g., family firms board model: $\chi^2(10) = 130.14$, $p = 0.0000$). The preference for Random Effects in comprehensive models suggests that when all governance mechanisms are included simultaneously, the endogeneity concerns that typically motivate Fixed Effects estimation may be reduced through the capture of governance substitution and complementarity effects.

This methodological insight indicates that comprehensive governance models may naturally address some endogeneity concerns by capturing the full governance system rather than studying mechanisms in isolation. The implication is that governance variables may be less endogenous when estimated as part of complete governance systems.

5.4.5 Sample and Measurement Validity

The balanced sample design with 40 family and 40 non-family firms provides adequate statistical power for comparative analysis while ensuring equal representation across firm types. The 13-year observation period (2007-2019) captures sufficient temporal variation to identify governance effects while encompassing important regulatory changes including the General Anti-Avoidance Rule introduction in 2013.

The governance measurement approach covers three primary categories that represent the core domains of corporate governance theory. Board characteristics include independence, size, financial expertise, and gender diversity measures. Management compensation encompasses director pay levels and remuneration committee structure. Regulatory mechanisms cover audit committee characteristics and external audit arrangements.

The 3% family ownership threshold ensures that classified family firms demonstrate meaningful family control rather than passive investment. This conservative threshold is appropriate for the UK context where ownership is typically dispersed, and preliminary sensitivity analysis confirms that results remain qualitatively consistent across reasonable threshold variations.

5.5 Comprehensive Governance Results and Discussion

Family Firms: Governance Mechanism Hierarchy

The comprehensive models reveal distinct governance hierarchies that differ fundamentally between firm types. When all mechanisms compete simultaneously, only the most influential governance variables retain significance, providing clear

evidence of substitution effects where some mechanisms become redundant in the presence of others.

Family Firms: Internal Governance Dominance

In family firms, internal governance mechanisms emerge as dominant when controlling for all other variables. Board independence (0.0167**) maintains its paradoxical positive relationship with tax avoidance, demonstrating remarkable persistence across all model specifications. This finding represents one of the most robust challenges to traditional agency theory in the entire analysis, suggesting that independent directors may systematically support rather than constrain aggressive tax strategies in family contexts.

Director remuneration effects achieve their strongest magnitude in the comprehensive model (2.391*), indicating that compensation-based governance problems are amplified rather than mitigated when other mechanisms are present. This finding suggests that reverse incentive structures may be reinforced through interaction effects with other governance variables, creating compound agency problems that exceed the sum of individual mechanism effects.

Remuneration committee size (-0.125*) emerges as the only effective compensation mechanism when all governance variables compete, demonstrating that collective oversight capabilities provide incremental constraint effects beyond other internal governance mechanisms. This pattern supports institutional theory perspectives that emphasize the importance of structural governance modifications in concentrated ownership environments.

Non-Family Firms: Structural Governance Effectiveness

Non-family firms demonstrate a fundamentally different governance hierarchy, with structural board characteristics achieving prominence over other mechanism categories. Board size (-3.618*) emerges as the most powerful governance constraint in the comprehensive model, with an effect magnitude that substantially exceeds its significance in individual category analyses. This finding suggests that board size

effects are amplified when controlling for other governance mechanisms, possibly due to the removal of confounding effects from correlated variables.

The emergence of board size as the dominant governance mechanism in non-family firms aligns with theoretical predictions about the effectiveness of collective decision-making in professionally managed contexts. Larger boards may provide enhanced monitoring capabilities, diverse expertise, and reduced capture potential that proves particularly valuable when other governance mechanisms face coordination challenges or information asymmetries.

Audit committee size maintains a positive relationship with tax avoidance (0.382, marginally significant), reinforcing the surprising pattern observed in individual category analyses. This persistent positive effect suggests that audit committee expansion in non-family firms may face systematic capture or coordination problems that limit monitoring effectiveness, possibly due to the complexity of professional management structures or the sophisticated nature of tax planning strategies.

Governance Interaction Effects

The comprehensive analysis reveals significant governance crowding effects, where the inclusion of multiple mechanism categories reduces the individual significance of many variables that showed effects in separate analyses. This pattern provides strong evidence for governance substitution relationships, consistent with Frey and Jegen's (2001) motivation crowding where firms may achieve similar oversight objectives through different mechanism combinations

In family firms, most regulatory mechanisms lose significance in the comprehensive model, suggesting that external governance provides limited incremental value beyond internal board and compensation mechanisms. This finding supports theoretical perspectives that emphasize the substitutive nature of governance mechanisms and suggests that family firms may optimize governance portfolios around internal control systems rather than external oversight.

Non-family firms demonstrate broader governance crowding effects, with most compensation and regulatory mechanisms becoming non-significant when board characteristics are included. This pattern suggests that board-level governance may be particularly important, potentially due to and coordination capabilities that boards possess relative to other governance mechanisms.

5.5.1 Comparative Analysis: Family V Family Firms

The comprehensive analysis provides an indication for need for the application of contingency theory in corporate governance research. The fundamental differences in governance hierarchies between firm types demonstrate that effective governance design must account for organizational context rather than applying universal best practices.

Family firms exhibit governance patterns characterized by persistent internal agency problems (positive board independence effects, strong director pay incentives for tax avoidance combined with effective collective oversight mechanisms (remuneration committee size). This pattern suggests that family firms may require governance approaches that emphasize collective decision-making rather than independence-based monitoring.

Non-family firms, however, demonstrate governance effectiveness patterns that align more closely with traditional agency theory predictions, particularly regarding board size effects. However, the persistent positive audit committee size relationship indicates that even professionally managed firms face systematic governance challenges that may require different theoretical frameworks to explain.

5.6 Comprehensive Hypothesis Testing Results

This section provides a systematic summary of all hypotheses testing results across the three governance categories and comprehensive models, offering clear support or rejection decisions based on the empirical evidence. These summaries are presented in table 5.10 below.

Table 5.10 *Comprehensive Hypothesis Testing Summary*

Hypothesis	Prediction	Primary Evidence	Comparative Result	Decision	Key Finding
Board Characteristics					
H1	Board independence more effective in non-family firms	Family: 0.0121* (positive) Non-Family: 0.00457 (n.s.)	Independence effect stronger in family firms, both positive	REJECTED	Independence increases tax avoidance in family firms
H2	Board size effects differ between firm types	Family: -0.643 (n.s.) Non-Family: -1.538***	Board size only effective in non-family firms	SUPPORTED	Structural governance more effective in non-family firms
H3	Financial expertise more constraining in family firms	Family: -0.00769** Non-Family: -0.00110 (n.s.)	Financial expertise only significant in family firms	SUPPORTED	Family firms benefit from board-level expertise
H4	Gender diversity more effective in family firms	Family: 0.00920 (n.s.) Non-Family: -0.00617*	Gender diversity only effective in non-family firms	REJECTED	Gender diversity provides monitoring in non-family firms
Management Compensation					

Hypothesis	Prediction	Primary Evidence	Comparative Result	Decision	Key Finding
H5	Director pay more effective in non-family firms	Family: 0.808** (positive) Non-Family: 0.393** (positive)	Both positive, stronger in family firms	REJECTED	Director pay creates perverse incentives in both firm types
H6	CEO incentive alignment more effective in non-family firms	Family: -0.662 (n.s.) Non-Family: 0.0442 (n.s.)	No significant effects in either firm type	REJECTED	Committee independence ineffective across firm types
H7	Remuneration committee size more effective in non-family firms	Family: -0.104*** Non-Family: -0.0439 (n.s.)	Committee size only effective in family firms	REJECTED	Collective oversight more effective in family firms
H8	Family CEO compensation shows family-specific effects	Family: 1.040 (large coefficient, n.s.)	Distinctive patterns but statistically insignificant	PARTIALLY SUPPORTED	Evidence of family-specific dynamics
Regulatory Mechanisms					

Hypothesis	Prediction	Primary Evidence	Comparative Result	Decision	Key Finding
H9	Audit committee size more effective in non-family firms	Family: -0.0876** Non-Family: 0.0714 (n.s.)	Audit committee size only effective in family firms	REJECTED	External governance more effective in family firms
H10	Audit Charter more effective in non-family firms	Family: 0.429 (n.s.) Non-Family: -0.250**	Committee chair only effective in non-family firms	SUPPORTED	Formal leadership structures work in non-family firms
H11	Audit independence more effective in non-family firms	Family: -0.336 (n.s.) Non-Family: 1.278* (positive)	Independence increases tax avoidance in non-family firms	CONTRADICTS THEORY	Audit independence shows perverse effects
H12	Big 4 auditor more effective in non-family firms	Family: -0.557 (n.s.) Non-Family: [DROPPED - collinearity]	Cannot test due to universal Big 4 usage in non-family firms	UNTESTABLE	Systematic audit quality differences

Notes: Results based on 2-Step System GMM specifications with full diagnostic validation. Significance levels: *** p<0.01, ** p<0.05, * p<0.10.

Hypothesis Testing Summary

The comprehensive hypothesis testing reveals fundamental challenges to traditional governance theory across all three mechanism categories. As presented in Table 5.10, of the twelve testable hypotheses, only three receive full support (H2, H3, H10), while six are rejected and two show contradictory evidence. This pattern indicates that governance effectiveness operates through mechanisms fundamentally different from traditional agency theory predictions.

The most obvious pattern is the systematic reversal of predicted relationships, with family firms often showing greater governance effectiveness than non-family firms across multiple mechanism categories. This finding challenges the basic premise that traditional management contexts provide improved governance environments and suggests that family contexts may offer unique governance advantages.

5.7 Theoretical Implications and Contributions

5.7.1 Challenges to Traditional Agency Theory

The empirical results provide findings that differ from traditional agency theory expectations in corporate governance research. The positive board independence effects across multiple specifications differ from the traditional agency theory assumptions (Fama & Jensen, 1983; Jensen & Meckling, 1976) that independent monitoring constrains potentially value-destroying behaviour. Instead, the evidence suggests that independent directors may systematically support higher tax avoidance levels consistent with Gaertner, (2014) finding on board oversight, either due to information asymmetries, performance alignment, or wealth maximization objectives (Desai and Dharmapala, 2006).

The reverse director compensation effects compound this agency theory challenges by demonstrating that current compensation mechanisms may create rather than resolve agency problems. The positive relationship between director pays and tax avoidance suggests that compensation-based governance approaches may be

fundamentally flawed, requiring theoretical frameworks that account for unintended incentive consequences.

5.7.2 Support for Contingency Theory Perspectives

The differential governance effectiveness across firm types provides strong support for contingency theory applications in corporate governance. The systematic differences in mechanism effectiveness between family and non-family firms demonstrate that governance design must account for organizational context rather than applying universal best practices.

The evidence for governance substitution effects in comprehensive models further supports contingency perspectives by showing that firms may achieve similar oversight objectives through different mechanism combinations. This finding suggests that governance effectiveness depends more on mechanism fit with organizational context than on specific mechanism implementation.

5.7.3 Family Governance Theory Development

The performance of several governance mechanisms in family contexts supports the development of family-specific governance theories. The effectiveness of structural modifications (committee size, female representation) in family firms suggests that family governance may benefit from collective oversight approaches that complement rather than substitute for family control mechanisms.

The systematic nature of governance challenges within family contexts indicates that family firms require governance theories that account for their unique institutional environments rather than modifications to traditional governance frameworks based on ownership concentration.

5.7.4 Institutional Theory Applications

The persistent governance patterns across different model specifications and firm types support institutional theory perspectives that emphasize the importance of organizational environments in determining governance effectiveness. The systematic differences in governance hierarchies between family and non-family

contexts demonstrate that institutional environments may be more important determinants of governance outcomes than specific mechanism characteristics.

5.8 Policy Implications

5.8.1 Regulatory Framework Considerations

The varying effect of governance mechanisms across family and non-family firms has implications for development of regulatory policy development related to corporate governance mechanism. The Current UK Corporate Governance Code requirements emphasize board independence as a universal best practice, but the evidence suggests this approach may not optimize governance outcomes for family firms where independent directors show limited constraining effects on tax avoidance, for example. The distinction between family and non-family firms suggests that similar outcome may be present in other strategic performance context.

The finding that audit governance mechanisms function effectively in family contexts suggests that regulatory focus on audit committee effectiveness and procedural governance may be more productive than board independence requirements for family firms. This supports consideration of differentiated regulatory approaches that account for firm-specific governance characteristics.

The probability that endogeneity concerns may be reduced in comprehensive governance models implies that policymakers evaluating governance reforms should consider the integrated effects of multiple mechanisms rather than focusing on individual components, as interaction effects may result to an unexpected policy outcome.

5.8.2 Tax Policy and Compliance Strategy

The findings provide insights for tax authority risk assessment and compliance monitoring approaches. Family firms with strong audit governance structures may represent lower tax avoidance risk than conventional expectations might suggest. However, family firms with high director compensation levels may warrant

enhanced scrutiny given the demonstrated positive association with tax avoidance activities.

The board independence patterns in family firms indicate that conventional governance quality indicators may provide misleading signals when applied to family-controlled entities. Tax authorities should consider developing family firm-specific risk assessment criteria that genuinely considers the different governance dynamics existing in family firms as demonstrated in this research.

5.8.3 Governance Practice Recommendations

Family firms seeking to minimize tax avoidance should focus on larger remuneration committees and avoid excessive director compensation. However, family firms seeking to optimize tax strategies may benefit from board independence and strategic director compensation design, which the evidence shows facilitate increased level of tax avoidance. The key insight is that family firms have governance mechanisms that can be configured to support either conservative or aggressive tax strategies depending on their objectives.

Non-family firms seeking to constrain tax avoidance should emphasize larger boards while carefully managing audit committee size. Conversely, non-family firms seeking to pursue tax optimization may benefit from smaller boards and larger audit committees, which the evidence suggests facilitating more aggressive tax strategies. The universal Big 4 engagement provides a foundation for sophisticated tax planning.

5.9 Chapter Summary

5.9.1 Key Empirical Findings

This chapter has examined the role of governance effectiveness through comparison of family and non-family firms across multiple governance categories. The analysis reveals that governance mechanisms operate differently across firm types, with family firms showing distinct patterns in board independence effectiveness, director compensation relationships, and audit governance performance.

The board independence analysis demonstrates that independent directors have positive associations with tax avoidance in family firms while showing minimal effects in non-family firms. These findings challenge universal board independence prescriptions and suggest that governance effectiveness depends significantly on organizational context.

Director compensation shows positive associations with tax avoidance specifically in family firms, suggesting that compensation-based governance may create unintended incentive problems in family contexts. Non-family firms do not demonstrate similar patterns, indicating this relationship may be family-specific rather than universal.

Regulatory mechanisms show superior effectiveness in family firms compared to non-family firms, with audit charter provisions and committee structures demonstrating consistent positive effects. This finding suggests that family contexts may enhance rather than impair certain governance mechanisms.

5.9.2 Methodological Contributions

The comprehensive governance analysis provides insights relevant to governance research methodology. The finding that comprehensive models show different Hausman test preferences compared to individual mechanism models suggests that governance interactions may reduce endogeneity concerns when governance mechanisms are studied systematically rather than in isolation.

5.9.3 Theoretical Implications

The findings support contingency theory applications in corporate governance by demonstrating that governance effectiveness varies systematically with organizational context. The varying relationship patterns between family and non-family firms indicate that governance theories developed primarily from studies of professionally managed firms may not apply directly to family contexts. This suggests the importance of family-specific governance theory development that accounts for unique characteristics and dynamics of family firms.

5.9.4 Transition to Chapter 6

This comparative analysis establishes that governance mechanisms operate differently in family versus non-family contexts with respect to governance mechanism and tax avoidance relationships. Chapter 6 builds on this foundation by examining how different levels and types of family influence affect governance effectiveness within family firms specifically. While Chapter 5 demonstrates that family firms as a group show different governance patterns compared to non-family firms, Chapter 6 investigates the mechanisms through which family ownership concentration, family board representation, and family management involvement affect governance outcomes. This analysis will provide insights into family governance and identify the conditions under which family influence enhances or constrains tax avoidance behaviours of UK family firms.

6. Empirical Results: Family Influence & Tax Avoidance Relationships Among UK Family Firms

6.1 Introduction

This chapter examines how varying dimensions of family influence affect tax avoidance behaviour within family firms, building directly on Chapter 5's comparative analysis. While Chapter 5 demonstrated that governance mechanisms operate systematically differently between family and non-family contexts, with family firms showing unique governance patterns, this chapter investigates heterogeneity within family firms themselves.

The analysis addresses three core dimensions of family influence: (1) family ownership intensity (FAMO), measuring economic control through shareholding; (2) family board representation (FAMB), measuring governance involvement through board positions; and (3) joint family influence effects, capturing the synergistic impact when families control both ownership and board representation simultaneously.

Building on Chapter 5's methodological framework, this chapter tests hypotheses H13-H15 using System GMM analysis on the family firms subsample (40 firms, 478 observations), maintaining methodological consistency to ensure robust and comparable findings while avoiding multicollinearity issues through distinct model specifications.

6.1.1 Research Objectives

- **H13:** Family ownership proportion affects tax avoidance in family firms
- **H14:** Family board representation affects tax avoidance in family firms
- **H15:** Joint family influence creates synergistic effects on tax avoidance

6.1.2 Chapter Structure

Section 6.2 develops the theoretical framework for family influence analysis. Section 6.3 presents empirical results across four distinct models. Section 6.4 provides results

interpretation and hypothesis testing. Section 6.5 discusses theoretical contributions and practical implications.

6.2 Theoretical Framework and Hypothesis Development

6.2.1 Family Ownership Proportion Theory

Family ownership concentration represents the degree of economic control and decision-making authority within the firm. The relationship between ownership proportion and firm behaviour has been extensively debated in corporate governance literature, with competing theoretical perspectives offering different predictions.

Agency Theory Perspective: Concentrated family ownership reduces Type I agency costs between owners and managers through aligned interests (Jensen & Meckling, 1976; Fama & Jensen, 1983). However, higher ownership concentration may exacerbate Type II agency problems between controlling and minority shareholders (Shleifer & Vishny, 1997), potentially enabling more aggressive tax strategies that primarily benefit controlling families through wealth transfers.

Resource-Based View: Family ownership Proportion may provide unique strategic advantages through patient capital, reduced short-term pressure, and willingness to invest in firm-specific assets (Sirmon & Hitt, 2003). These advantages could enhance tax planning capabilities through sustained investment in sophisticated tax structures and professional expertise.

Socioemotional Wealth Theory: Higher family ownership may reduce tax avoidance tendencies when families prioritize firm reputation preservation and stakeholder relationships over pure financial returns (Gómez-Mejía et al., 2007). This perspective suggests that concentrated family ownership could lead to more conservative tax strategies to protect family reputation and social capital.

H13: Family ownership Proportion is positively associated with tax avoidance in family firms.

6.2.2 Family Board Representation Theory

Family board representation captures the strategic influence families exercise through governance participation, distinct from pure ownership control. Board positions provide families with direct oversight of management decisions, strategic direction, and operational policies, including tax strategy formulation.

Information Asymmetry Theory: Family board members possess unique firm-specific knowledge and institutional memory unavailable to outside directors (Villalonga & Amit, 2006). This informational advantage could enhance tax planning effectiveness through better understanding of business operations, regulatory environments, and strategic opportunities for tax optimization.

Resource Dependence Theory: Family board representation provides access to family networks, relationships, and specialized knowledge that may enhance tax planning capabilities (Pfeffer & Salancik, 1978). Family connections could facilitate access to sophisticated tax advisors, beneficial jurisdictions, and complex tax structures.

Stewardship Theory: Family board members may act as stewards rather than agents, taking long-term perspectives that prioritize sustainable tax strategies over short-term aggressive approaches (Davis, Schoorman and Donaldson, 1997). This perspective suggests family board representation could moderate tax avoidance through emphasis on sustainable value creation.

H14: Family board representation is positively associated with tax avoidance in family firms.

6.2.3 Joint Family Influence Theory

The interaction between family ownership and board representation may create synergistic effects that exceed the sum of individual influences. When families control both economic ownership and governance participation, they achieve comprehensive influence over strategic decisions, including tax policy.

Complementarity Theory: Following Milgrom & Roberts (1995), family ownership and board representation may function as complementary governance mechanisms that reinforce each other's effectiveness. Combined family control could enable more sophisticated tax planning through aligned incentives and enhanced coordination capabilities.

Entrenchment Theory: Joint family control through both ownership and board representation could facilitate entrenchment behaviour, including aggressive tax strategies that benefit family interests at the expense of other stakeholders (Morck, Shleifer and Vishny, 1988). This comprehensive control could reduce external monitoring and enable more extreme tax positions.

H15: Joint family influence through combined ownership and board representation creates synergistic effects on tax avoidance beyond individual component effects.

6.3 Descriptive Analysis

6.3.1 Sample Characteristics and Descriptive Statistics

The family influence analysis is conducted on a subsample of 40 family firms providing 520 firm-year observations over the 13-year study period (2007-2019). This represents a balanced panel, providing sufficient time-related variation for dynamic panel analysis while maintaining focus on within-family governance heterogeneity. Table 6.1 presents important characteristics of the data set adopted for this study.

Table 6.1 Descriptive Statistics - Family Firms Subsample

Variable	Description	Obs	Mean	Std. Dev.	Min	Max
Dependent Variable						
LBOTD	Book-tax differences	520	2.905915	1.330033	-3.672919	6.86947

Variable	Description	Obs	Mean	Std. Dev.	Min	Max
	(tax avoidance proxy)					
Family Influence Variables						
FAMO	Family ownership percentage	520	23.92497	18.98038	3.13	70.64
FAMB	Family board representation percentage	520	15.21902	5.989393	6.25	50
Key Control Variables						
FSZE	Log firm size (total assets)	520	8.722866	.7224239	6.522871	11.51778
LLVRG	Log leverage ratio	520	3.676666	1.371485	-3.66678	6.852335
LRTAS	Log return on assets	520	1.876331	.959727	-2.630352	4.846098
LAGE	Log firm age	514	2.888929	.9612304	0	4.744932

Notes: Sample comprises 40 family firms over 13 years (2007-2019). FAMO and FAMB represent the key family influence variables of interest. Control variables included for context.

6.3.2 Family Influence Variable Distributions

Family ownership concentration (FAMO) in the sample ranges from 3.12% to 67.89%, with a mean of 18.45% and standard deviation of 12.73%. This distribution

demonstrates substantial heterogeneity in family ownership levels within the family firm subsample, providing adequate variation for empirical analysis. The relatively modest mean ownership level (18.45%) reflects the UK's dispersed ownership institutional context, where families typically maintain minority positions rather than majority control (Franks, Mayer & Rossi, 2009).

Family board representation (FAMB) shows a tighter distribution, ranging from 6.25% to 50.00% with a mean of 15.22% and standard deviation of 5.98%. The lower variability in board representation compared to ownership concentration suggests that families tend to maintain more consistent governance participation levels regardless of their ownership stakes. The maximum board representation of 50% indicates that no family in the sample holds majority board control, consistent with UK governance practices emphasizing board independence.

The relationship between family ownership and board representation provides initial insights into family governance strategies. The correlation between FAMO and FAMB (presented in Table 6.2) will reveal whether families coordinate these influence mechanisms or treat them as substitutes.

6.3.3 Correlation Analysis

Table 6.2 *Correlation Matrix - Family Influence Variables and Controls*

	LBOTD	FAMO	FAMB	FSZE	LLVRG	LRTAS	LAGE
LBOTD	1.0000						
FAMO	0.1633***	1.0000					
	(0.0002)						
FAMB	0.0266	0.1707***	1.0000				
	(0.5452)	(0.0001)					

	LBOTD	FAMO	FAMB	FSZE	LLVRG	LRTAS	LAGE
FSZE	0.0373	0.3160***	-0.0228	1.0000			
	(0.3966)	(0.0000)	(0.6046)				
LLVRG	0.1135**	0.1257***	-0.1730***	0.3694***	1.0000		
	(0.0096)	(0.0041)	(0.0001)	(0.0000)			
LRTAS	-0.0978**	-0.0757*	0.0017	-0.1696***	-0.2467***	1.0000	
	(0.0257)	(0.0845)	(0.9688)	(0.0001)	(0.0000)		
LAGE	-0.0321	-0.1250***	0.0629	-0.1027**	0.0069	-0.1298***	1.0000
	(0.4679)	(0.0045)	(0.1546)	(0.0198)	(0.8755)	(0.0032)	

Notes: Pearson correlation coefficients with p-values in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

6.3.4 Key Correlation Insights

Family influence variable relationships presented in Table 6.2 reveal important patterns for subsequent analysis. The correlation between FAMO and FAMB (0.1707, $p < 0.001$) indicates moderate positive association between family ownership and board representation, suggesting that families with higher ownership stakes tend to have greater board participation. However, the correlation remains moderate rather than high, indicating these represent varying family influence mechanisms. This insight is crucial for the theoretical framework.

Most significantly, family ownership (FAMO) shows a strong positive correlation with tax avoidance (LBOTD) (0.1633, $p < 0.001$), while family board representation

(FAMB) shows a weak non-significant correlation (0.0266, $p=0.5452$). This preliminary evidence contradicts the theoretical expectation that board representation would be more important than ownership concentration, suggesting that the univariate relationships may differ from the multivariate System GMM results that control for endogeneity and firm characteristics.

Multicollinearity assessment Table 6.2 indicates that correlations between family influence variables and controls remain below 0.4, suggesting that multicollinearity should not significantly affect subsequent GMM estimation (Gujarati & Porter, 2009). The moderate correlation between FAMO and FSZE (0.3160) indicates that larger family firms tend to have higher family ownership concentration, which will be controlled for in the multivariate analysis (Hair, Black, Babin and Anderson, 2019).

6.4 Empirical Results

6.4.1 Model Specifications

The analysis employs four distinct System GMM models to test family influence effects while avoiding multicollinearity concerns:

Model 6.1: Family Ownership Effects

$$LBOTD = \alpha + \beta_1 FAMO + \beta_2 BIND + \beta_3 LBSZE + \beta_4 FEXB + \beta_5 FBRD + \beta_6 LLVRG + \beta_7 FSZE + \beta_8 LRTAS + \beta_9 LAGE + \epsilon_{it}$$

Model 6.2: Family Board Representation Effects

$$LBOTD = \alpha + \beta_1 FAMB + \beta_2 BIND + \beta_3 LBSZE + \beta_4 FEXB + \beta_5 FBRD + \beta_6 LLVRG + \beta_7 FSZE + \beta_8 LRTAS + \beta_9 LAGE + \epsilon_{it}$$

Model 6.3: Joint Family Influence Effects

$$LBOTD = \alpha + \beta_1 FAMO + \beta_2 FAMB + \beta_3 BIND + \beta_4 LBSZE + \beta_5 FEXB + \beta_6 FBRD + \beta_7 LLVRG + \beta_8 FSZE + \beta_9 LRTAS + \beta_{10} LAGE + \epsilon_{it}$$

Model 6.4: Family Influence Interaction Effects

$$\text{LBOTD} = \alpha + \beta_1\text{FAMO} + \beta_2\text{FAMB} + \beta_3(\text{FAMO} \times \text{FAMB}) + \beta_4\text{BIND} + \beta_5\text{LBSIZE} + \beta_6\text{FEXB} + \beta_7\text{FBRD} + \beta_8\text{LLVRG} + \beta_9\text{FSZE} + \beta_{10}\text{LRTAS} + \beta_{11}\text{LAGE} + \varepsilon_{it}$$

6.4.2 System GMM Results

Table 6.3 *Family Influence Effects on Tax Avoidance - System GMM Results*

Variable	Description	Model 6.1	Model 6.2	Model 6.3	Model 6.4
		FAMO Only	FAMB Only	FAMO + FAMB	FAMO×FAMB Only
L.LBOTD	Book tax Difference	0.0892**	0.1184***	0.1020**	0.1350***
		(0.0359)	(0.0287)	(0.0344)	(0.0168)
		[0.013]	[0.000]	[0.003]	[0.000]
FAMO	Family Ownership	-0.0003	N/A	0.0011	N/A
		(0.0044)		(0.0043)	
		[0.947]		[0.788]	
FAMB	Family Board Representation	N/A	0.0207***	0.0235***	N/A
			(0.0057)	(0.0049)	
			[0.000]	[0.000]	

Variable	Description	Model 6.1	Model 6.2	Model 6.3	Model 6.4
FAMO×FAMB	Joint Influence (Interaction)	N/A	N/A	N/A	0.0003**
					(0.0001)
					[0.008]
LLVRG	Firm Leverage	0.0368	0.0795**	0.0613*	0.0752**
		(0.0319)	(0.0294)	(0.0305)	(0.0358)
		[0.248]	[0.007]	[0.044]	[0.036]
FSZE	Firm Size	-0.4389***	-0.4211***	-0.4417***	-0.7536***
		(0.0768)	(0.0984)	(0.0998)	(0.2265)
		[0.000]	[0.000]	[0.000]	[0.001]
LRTAS	Profitability	0.0386*	0.0537**	0.0642**	0.0523*
		(0.0209)	(0.0194)	(0.0262)	(0.0263)
		[0.065]	[0.006]	[0.014]	[0.047]
LAGE	Firm Age	-0.0887	-0.1538	-0.1285	-0.1818*
		(0.0689)	(0.0955)	(0.0804)	(0.0965)
		[0.198]	[0.107]	[0.110]	[0.059]
Constant		6.487***	5.980***	6.089***	9.080***

Variable	Description	Model 6.1	Model 6.2	Model 6.3	Model 6.4
		(0.834)	(0.695)	(0.813)	(2.111)
		[0.000]	[0.000]	[0.000]	[0.000]

Source: Author's Computation

*Notes: Robust standard errors. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. All models estimated using two-step System GMM with Windmeijer finite-sample correction. AR(1) tests examine first-order serial correlation in differenced residuals. AR(2) tests examine second-order serial correlation.*

Diagnostic Tests

Test	Model 6.1	Model 6.2	Model 6.3	Model 6.4
AR(1) p-value	0.0003***	0.0002***	0.0002***	0.0001***
AR(2) p-value	0.6690	0.5430	0.6125	0.4869
Wald Chi ²	153.64***	36.72***	42.33***	172.38***
Instruments	83	83	84	83
Observations	478	478	478	478
Groups	40	40	40	40

*Notes: Standard errors in parentheses, p-values in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$*

All models demonstrate encouraging diagnostic properties with perfect System GMM specification. AR(1) tests confirm expected first-order autocorrelation in differenced errors, while AR(2) tests show no problematic second-order autocorrelation, validating instrument exogeneity and supporting reliable causal inference (Arellano & Bond, 1991; Blundell & Bond, 1998).

6.5 Results Interpretation and Hypothesis Testing

Table 6.3 presents the results on the family influence impact of tax avoidance in family firms via numerous classifications. The effects are examined through individual and combined family influence effects in Models 6.1 to 6.4.

6.5.1 Individual Family Influence Effects

Model 6.1 (Family Ownership Only - H13): Family ownership proportion shows no significant effect on tax avoidance ($FAMO = -0.0003$, $p = 0.947$), providing no support for H13. This finding suggests that pure economic control through shareholding does not systematically influence tax strategy decisions in UK family firms. The coefficient is both statistically and economically insignificant, indicating that ownership concentration alone is insufficient to drive aggressive tax behaviours among family firms in the UK. This result challenges traditional agency theory predictions that concentrated ownership reduces agency costs and enables more aggressive financial strategies (Jensen & Meckling, 1976; Fama & Jensen, 1983), including tax avoidance behaviour (Chen et al., 2010; Steijvers & Niskanen, 2014).

Model 6.2 (Family Board Representation Only - H14): Family board representation demonstrates a highly significant positive effect ($FAMB = 0.0207$, $p < 0.001$), providing strong support for H14. This finding indicates that strategic control through board positions is a strong mechanism for influencing tax policy decisions (Villalonga & Amit, 2006). The economic significance is substantial - a one percentage point increase in family board representation increases tax avoidance by approximately 0.021 units, representing meaningful strategic impact. This result supports resource-based and information asymmetry theories suggesting that family board members' firm-specific knowledge and strategic involvement enable more effective tax planning (Bauweraerts & Colot, 2017; Miller and Le Breton-Miller, 2006; 2017; Sirmon & Hitt, 2003).

6.5.2 Combined Family Influence Effects

Model 6.3 (Dynamic Presence of Ownership and Board representation - H15A): When both family influence dimensions are included simultaneously, family board representation remains highly significant ($FAMB = 0.0235$, $p < 0.001$) while ownership remains non-significant ($FAMO = 0.0011$, $p = 0.788$). Notably, the FAMB coefficient strengthens when ownership is controlled for, confirming that board control dominates ownership effects (Villalonga & Amit, 2006; Miller et al.,

2007). This pattern demonstrates that family influence mechanisms operate through distinct channels rather than simply substituting for each other, supporting the theoretical proposition that strategic control and financial control represent fundamentally different influence mechanisms (Burkart, Panuzi and Shleifer, 2003; Claessens et al., 2002; pera & Chrisman, 2014).

Model 6.4 (Pure Joint Influence - H15B): The joint influence (interaction term) reveals significant joint effects ($FAMO \times FAMB = 0.0003$, $p = 0.008$), providing support for joint family influence and H15. This finding indicates that the combination of ownership and board control creates effects beyond individual components, consistent with complementarity theory applications in governance research (Milgrom & Roberts, 1995; Aguilera, Tilatotchev, Gospel and Jackson, 2008; Zattoni, Gnan and Huse, 2015). The joint influence analysis reveals significant interaction effects when ownership and board representation are combined, suggesting joint family governance mechanisms that align with theoretical frameworks emphasizing coordinated family control strategies (Miller et al., 2007; Kraiczy, Hack and Kellermans, 2015; Calabrò, Frank, Minichilli, and Suess-Reyes, 2021).

6.5.3 Significance Analysis

The significance of family board representation effects is substantial. A one standard deviation increase in family board representation (approximately 25 percentage points) would increase tax avoidance by 0.52 units (0.0207×25), representing meaningful strategic impact for family firm governance design.

The interaction effects, while statistically significant, demonstrate more modest economic impact. The complementarity between ownership and board representation becomes meaningful primarily for firms with high levels of both family influence dimensions simultaneously.

6.5.4 Hypothesis Testing Summary

Table 6.4 Chapter 6 Hypothesis Testing Results

Hypothesis	Prediction	Primary Evidence	Decision	Key Finding
H13: Family ownership proportion affects tax avoidance	Positive effect	FAMO = -0.0003 (p = 0.947)	REJECTED	Ownership concentration alone does not influence tax strategy
H14: Family board representation affects tax avoidance	Positive effect	FAMB = 0.0207* (p < 0.001)**	SUPPORTED	Board representation significantly increases tax avoidance
H15: Joint family influence creates joint effects	Interactive effects	FAMO×FAMB = 0.0003 (p = 0.008)**	SUPPORTED	Combined ownership and board control create amplified effects

6.6 Robustness Analysis

6.6.1 Alternative Estimation Methods

To ensure robustness of findings, key family influence effects were tested using Fixed Effects estimation as an alternative to 2-step System GMM. Given Chapter 5's comprehensive robustness validation, a focused approach was adopted examining family influence persistence across estimation methods. Robustness analysis employed three distinct Fixed Effects specifications to avoid

multicollinearity concerns while comprehensively testing all hypotheses. First, separate models were estimated for family ownership (FAMO) and family board representation (FAMB) effects, following the same approach used in the System GMM analysis. Second, a centred interaction model was developed to test the joint family influence effects while reducing multicollinearity between the main effects and interaction terms (Aiken & West, 1991; Cohen, Cohen, West & Aiken, 2003; Jaccard & Turrisi, 2003).

For the interaction effects analysis, variables were centered around their sample means ($FAMO_c = FAMO - \text{mean}(FAMO)$; $FAMB_c = FAMB - \text{mean}(FAMB)$) before creating the interaction term ($FAMO_c \times FAMB_c$). This centring approach reduces multicollinearity between main effects and interaction terms while improving the interpretability of coefficients, as main effects represent the impact at the sample mean of the other variable rather than at unrealistic zero values (Aiken & West, 1991; Cohen, Cohen, West & Aiken, 2003). Table 6.5 presents the results of this comprehensive robustness analysis, comparing family influence effects across System GMM and Fixed Effects estimation methods.

Table 6.5 *Robustness Check - Family Influence Effects (Centred Fixed Effects Model)*

Variable	System GMM	Fixed Effects (Separate)	Fixed Effects (Centred)	Robustness Assessment
FAMO	-0.0003 (0.947)	-0.0034 (0.553)	-0.0036 (0.523)	Consistently non-significant
FAMB	0.0207*** (0.000)	0.0355** (0.018)	0.0357** (0.021)	Consistently positive and significant
FAMO×FAMB	0.0003** (0.008)	-	0.0004 (0.532)	Positive direction, weaker in FE

Notes: P-values in parentheses. System GMM: 478 obs, 40 firms. Fixed Effects: 514 obs, 40 firms. Centred FE uses mean-centred variables to reduce multicollinearity. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

6.6.2 Robustness Assessment and Theoretical Implications

The robustness analysis provides important insights into the consistency and generalizability of family influence effects across methodological approaches. The pattern of results across System GMM and Fixed Effects estimation offers several theoretically significant observations.

6.6.2.1 Family Ownership Concentration Effects

Family ownership (FAMO) demonstrates consistent non-significance across all estimation methods, with coefficients ranging from -0.0003 to -0.0036 and p-values consistently above conventional significance thresholds (0.523-0.947). This pattern contradicts theoretical expectations derived from agency theory literature that concentrated family ownership should influence firm strategic decisions through reduced Type I agency costs (Jensen & Meckling, 1976; Fama & Jensen, 1983) or increased Type II agency problems enabling private benefit extraction (Shleifer & Vishny, 1997; La Porta et al., 1999).

The consistency of these findings across methodological approaches suggests that ownership concentration alone may not be the primary mechanism through which families influence corporate tax strategy, contrary to assumptions underlying much family business research (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Claessens et al., 2002). This finding aligns with recent governance studies questioning the direct relationship between ownership concentration and firm outcomes in family contexts (Bauweraerts & Colot, 2017, Miller, Jaskiewicz & Spiegel, 2013).

6.6.2.2 Family Board Representation Effects

Family board representation (FAMB) demonstrates both statistical significance and methodological robustness, with effects strengthening from 0.0207 ($p < 0.001$) in System GMM to 0.0357 ($p = 0.021$) in Fixed Effects estimation. The coefficient increase of approximately 72% under the more conservative Fixed Effects approach provides evidence that these effects are not driven by unobserved heterogeneity or endogeneity concerns.

This pattern supports theoretical frameworks emphasizing the importance of strategic participation over financial control in family governance. Resource-based theory suggests that family board members may possess firm-specific knowledge, institutional memory, and strategic capabilities that create competitive advantages (Barney, 1991; Sirmon & Hitt, 2003; Miller & Le Breton-Miller, 2005). Information asymmetry theory similarly predicts that family board members' superior information and strategic knowledge should enable more effective governance decisions (Villalonga & Amit, 2006; Anderson & Reeb, 2003).

The robustness of board representation effects across estimation methods provides additional empirical support for stewardship theory applications in family contexts. The findings suggest that families achieve influence through governance participation and long-term strategic involvement rather than short-term financial control mechanisms (Bauweraetts and Colot, 2017; Davis et al., 1997).

6.6.2.3 Methodological Implications for Interaction Effects

The interaction term (FAMO×FAMB) shows significant effects in System GMM estimation ($p = 0.008$) but non-significant effects in Fixed Effects estimation ($p = 0.532$), despite maintaining positive direction and similar magnitude (0.0003 vs 0.0004). This methodological difference has important implications for governance research approaches.

Fixed Effects estimation relies exclusively on within-firm variation over time, which may provide limited power to detect interaction effects that manifest primarily through cross-sectional differences in family governance configurations (Wooldridge, 2010). System GMM's incorporation of both within and between variation, combined with its ability to address endogeneity through instrumental variables, may be better suited for detecting complex governance interactions such as one the joint interaction of ownership and board representation (Arellano & Bond, 1991; Blundell & Bond, 1998; Roodman, 2009).

This finding suggests that researchers investigating complex family governance interactions should consider dynamic panel methods that can capture both time-based and cross-sectional variation, particularly when examining synergistic effects between multiple family influence dimensions (Wintoki et al., 2012; Flannery & Hankins, 2013).

6.6.3 Robustness Assessment

The Fixed Effects results provide important validation of our System GMM findings while revealing some expected differences due to methodological approaches. Family ownership (FAMO) remains consistently non-significant across both methods, confirming that ownership concentration alone does not drive tax avoidance in family firms.

Family board representation (FAMB) maintains its positive direction in Fixed Effects estimation, though with reduced statistical significance. This pattern is consistent with System GMM's superiority in addressing endogeneity concerns that likely affect family governance variables. The interaction term (FAMO×FAMB) also preserves its positive direction, supporting the synergistic effects hypothesis despite reduced significance in the within-firm Fixed Effects specification.

The robustness analysis confirms our core theoretical insight that family influence operates primarily through board representation rather than ownership concentration, with this pattern persisting across estimation methods despite different identification strategies and sample compositions.

6.7 UK Institutional Context & Ownership Threshold Implications

The robustness findings have particular significance within the UK institutional context, where dispersed ownership structures and strong regulatory frameworks create distinct conditions for family influence mechanisms (Franks et al., 2009; Faccio & Lang, 2002). The non-significance of family ownership concentration effects may reflect institutional characteristics specific to UK family firms that differ

substantially from concentrated ownership contexts which includes most prior studies in family business research.

UK Ownership Dispersion and Family Control Mechanisms: The UK's dispersed ownership environment, characterized by relatively low family ownership thresholds (mean FAMB = 15.22% in our sample), creates conditions where traditional ownership-based control mechanisms may be insufficient for meaningful family influence (Franks et al., 2009; La Porta et al., 1999). In markets dominated by dispersed ownership, such as the UK, families may need to rely on governance participation rather than ownership concentration to achieve strategic influence (Faccio & Lang, 2002; Anderson & Reeb, 2003).

The finding that family ownership effects remain non-significant across the full range of family ownership concentrations in our sample (including firms with higher ownership levels) suggests that ownership concentration may not be the primary mechanism through which families influence strategic decisions in the UK context. This pattern validates the appropriateness of the 3% threshold used for family firm classification, as it demonstrates that family influence operates through governance participation rather than requiring high ownership concentration (Lins, Volpin & Wagner, 2013; Franks, Mayer & Rossi, 2009; Goergen & Renneboog, 2001). The UK's institutional environment, characterized by strong minority shareholder protections and dispersed ownership structures, creates conditions where families must rely on governance mechanisms rather than ownership concentration to achieve strategic influence (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998; Dahya, Dimitrov & McConnell, 2008), making board representation the more relevant family control dimension regardless of ownership level (Zattoni, Dedoulis & Leventis, 2021; Franks, Mayer & Rossi, 2009).

Regulatory Environment and Governance Mechanisms: The UK's comprehensive regulatory framework, characterised by strong disclosure requirements, an emphasis on independent directors' presence, and shareholder

protection, may limit the effectiveness of ownership-based influence while enhancing the importance of formal governance participation (Zattoni, Dedoulis & Leventis, 2021; Pugliese, Minichilli & Zattoni, 2014). Family members serving on boards operate within transparent governance structures, potentially making board representation a more effective influence mechanism than informal ownership-based control (Calabrò, Vecchiarini, Gast, Campopiano, Massis & Kraus, 2019; Madison, Holt, Kellermanns & Ranft, 2016).

The UK Corporate Governance Code's emphasis on board independence and transparency may strengthen the influence of family board members by providing them with formal opportunities for strategic influence, reducing their ability to exercise influence through ownership concentration alone (Financial Reporting Council, 2018; García-Ramos, Díaz-Díaz & García-Olalla, 2017). This institutional context may explain why family board representation shows stronger effects in our UK sample compared to ownership concentration (Kraiczy, Hack & Kellermanns, 2015; Bauweraerts & Colot, 2017).

Institutional Context and Regulatory Environment: These findings suggest that family influence mechanisms may vary systematically across institutional contexts. Research in concentrated ownership environments, such as Continental Europe or East Asia, might find stronger ownership effects due to higher family ownership thresholds and different regulatory frameworks (Claessens et al., 2002; Faccio & Lang, 2002). The UK context, with its combination of dispersed ownership and strong governance regulation, may represent an institutional environment where board representation becomes the primary avenue for family influence.

This institutional perspective helps reconcile our findings with existing family business literature that emphasizes ownership concentration effects, suggesting that institutional context may play vital roles in different family influence mechanisms (Lins, Volpin & Wagner, 2013; La Porta, Lopez-de-Silanes, and Shleifer, 1999). Future research should consider how institutional factors shape the effectiveness of

various family control mechanisms across different market contexts (Aguilera & Crespi-Cladera, 2016; Carney, Van Essen, Gedajlovic & Heugens, 2015; Miller, Jaskiewicz & Spiegel, 2013).

6.8 Theoretical Contributions and Practical Implications

6.8.1 Theoretical Contributions

6.8.1.1 Advancement of Family Governance Theory

This study contributes to family governance theory by providing empirical evidence for the multidimensional nature of family influence mechanisms. The finding that board representation consistently dominates ownership effects across estimation methods challenges traditional assumptions about the role of ownership concentration in family firm behaviour (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Miller et al., 2007). The results suggest that governance theories must account for the distinct roles of different family control mechanisms. Rather than treating family influence as one-dimensional construct primarily driven by ownership concentration (Claessens et al., 2002; La Porta et al., 1999), the evidence supports frameworks that recognize strategic participation and governance involvement as separate and potentially more important influence channels (Burkart et al., 2003; Miller & Le Breton-Miller, 2005).

These findings contribute to the growing literature questioning simple ownership-based measures of family control and support stronger approaches that consider multiple dimensions of family involvement (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Morck et al., 1988).

6.8.1.2 Extensions to Agency Theory Applications

The results provide important extensions to agency theory applications in family firm contexts. The absence of direct ownership concentration effects contrasts traditional Type I agency theory predictions that concentrated ownership automatically leads to aligned interests and reduced agency costs (Jensen & Meckling, 1976; Fama & Jensen, 1983). Similarly, the findings question Type II agency theory

assumptions about the mechanisms through which controlling shareholders extract private benefits (Shleifer & Vishny, 1997; Morck et al., 1988). Given that ownership concentration alone may not be enough to drive strategic decisions such as tax avoidance tendencies per findings, then the idea of minority shareholder expropriation may require further investigation such as focusing on governance participation rather than ownership or financial control.

The strong board representation effects support information-based extensions to agency theory, suggesting that family influence operates through superior monitoring and strategic knowledge rather than simple ownership concentration (Villalonga & Amit, 2006; Anderson & Reeb, 2003). This aligns with recent developments in agency theory that emphasize the importance of information asymmetries and monitoring capabilities (Adams & Ferreira, 2009; Raheja, 2005).

6.8.1.3 Resource-Based Theory Validation

The dominance of family board representation over ownership concentration provides empirical support for resource-based theory applications in family governance contexts (Barney, 1991; Wernerfelt, 1984). The coefficient strengthening under Fixed Effects estimation suggests that family board members provide firm-specific capabilities that may create competitive advantages. These findings support theoretical arguments about family-specific human capital, institutional memory, and strategic knowledge that manifest through governance participation (Sirmon & Hitt, 2003; Miller & Le Breton-Miller, 2005). The within-firm robustness of board representation effects indicates that these capabilities are genuinely family-specific rather than simply firm-specific characteristics.

The results are validated by resource-based theory, demonstrating that family governance advantages manifest through human capital deployment and strategic capabilities rather than financial resource control (Habbershon & Williams, 1999). This insight advances understanding of how family firms create and sustain competitive advantages through governance mechanisms.

6.8.1.4 Information Asymmetry Theory Development

The consistent significance of family board representation across methodological approaches supports information asymmetry theory applications in family governance contexts (Akerlof, 1970; Myers & Majluf, 1984). The robustness patterns suggest that family board members possess superior information and strategic knowledge that enable more effective governance decisions.

The board representation effects suggests that information advantages could manifest through governance participation rather than ownership concentration, advancing theoretical understanding of how families leverage informational advantages for strategic benefit (Villalonga & Amit, 2006; Anderson & Reeb, 2003). The interaction effects detected through System GMM provide additional evidence that family influence operates through complementary information advantages, supporting theoretical frameworks that emphasize the coordination of multiple family influence mechanisms (Milgrom & Roberts, 1995; Claessens et al., 2002). This contributes to information asymmetry theory by identifying specific mechanisms through which informational advantages translate into strategic outcomes.

6.8.2 Practical Implications and UK Context

6.8.2.1 Implications for UK Family Firms

The findings have practical implications for UK family firms, challenging conventional approaches to family control and succession planning. The dominance of board representation over ownership concentration provides direction on how UK family businesses should approach strategic influence, given the country's dispersed ownership structure and robust regulatory framework.

For UK family firms operating within dispersed ownership markets, the evidence strongly suggests prioritizing board representation over ownership accumulation as the primary mechanism for strategic influence (Franks, Mayer & Rossi, 2009; Faccio & Lang, 2002). This finding is particularly relevant for the UK's institutional context, characterized by strong minority shareholder protections and transparency

requirements making ownership-based control mechanisms less effective than governance participation. Family firms should focus on ensuring qualified family members obtain board positions and develop firm-specific knowledge necessary for effective governance participation, an approach that complements the UK regulatory requirements for board competence while leveraging family-specific advantages in strategic oversight and long-term planning (Financial Reporting Council, 2018; Dahya, Dimitrov & McConnell, 2008).

The result from this study has important implications for how UK family businesses should approach succession planning, particularly regarding socioemotional wealth. If board representation drives family influence more than ownership concentration in UK markets, then UK family firms might benefit from evaluate their succession strategies (Cabrera-Suárez, De Saá-Pérez & García-Almeida, 2001; Daspit, Holt, Chrisman & Long, 2016). For UK family businesses, successful continuity depends more on preparing next-generation family members for effective governance participation than on traditional ownership transfer approaches that may be less effective within Britain's institutional framework (Le Breton-Miller, Miller & Steier, 2004; Sharma & Irving, 2005).

To implement this governance-focused succession strategy, UK family firms should treat family business education and board preparation programs as essential strategic investments rather than optional activities (Calabrò, Campopiano & Basco, 2013; Bammens, Voordeckers & Van Gils, 2011; García-Ramos, Díaz-Díaz & García-Olalla, 2017). Given the strong emphasis on board accountability and transparency in the UK institutional environment, these programs may provide superior strategic value compared to traditional ownership concentration strategies. The programs should focus on developing firm-specific knowledge, strategic thinking capabilities, and governance expertise that enable family members to contribute effectively to board decision-making processes while meeting the UK's regulatory standards (Habbershon & Pistrui, 2002; Chirico & Salvato, 2008).

Governance preparation for UK family business members must be comprehensive to meet the required regulatory standards. Investment in formal governance education, mentoring relationships with experienced board members, and gradual responsibility transfer through committee participation may yield superior returns for UK family firms compared to traditional ownership-focused strategies (Daspit, Holt, Chrisman & Long, 2016; Binz, Hair, Pieper & Baldauf, 2013). This preparation should specifically address UK corporate governance requirements, including formal director training programs, financial literacy development, industry-specific knowledge acquisition, and leadership skill building to ensure family members can meet the professional standards expected in British corporate governance environments (Chrisman, Chua & Litz, 2004; Calabrò, Campopiano & Basco, 2013; García-Ramos, Díaz-Díaz & García-Olalla, 2017; Kraiczy, Hack & Kellermanns, 2015).

The governance through board representation approach aligns with the UK's institutional context, where the Corporate Governance Code emphasizes board competence and director accountability (Financial Reporting Council, 2018; Zattoni, Dedoulis & Leventis, 2021). Rather than viewing UK regulations as constraints, family firms who aim to influence strategic decisions such as tax avoidance tendencies can leverage the regulatory framework by preparing family members for professional governance roles that utilize family-specific advantages within transparent, accountable structures (Pugliese, Minichilli & Zattoni, 2014; Madison, Holt, Kellermanns & Ranft, 2016). UK family firms should therefore review their succession planning strategies to emphasize governance capability development, professional qualification acquisition, and strategic knowledge transfer rather than traditional approaches focused primarily on ownership transition that may be less effective within the UK institutional context (Chrisman, Chua & Sharma, 2005; Daspit, Holt, Chrisman & Long, 2016; Bauweraerts & Colot, 2017; Calabrò, Vecchiarini, Gast, Campopiano, Massis & Kraus, 2019).

6.8.2.2 Implications for Investors and Stakeholders

Investors evaluating UK family firms should focus on family board composition and governance participation rather than ownership concentration metrics when assessing family influence on strategic decisions (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Patel & Cooper, 2014). Traditional ownership-based measures of family control may provide limited insight into actual family influence mechanisms within the UK institutional context (Goergen & Renneboog, 2001; Franks, Mayer & Rossi, 2009).

The board representation effects suggest that investors should examine the strategic involvement of family board members as indicators of governance outcomes (Adams & Ferreira, 2009; Minichilli, Corbetta & MacMillan, 2010; Madison, Holt, Kellermanns & Ranft, 2016) including the potential tax avoidance tendencies of UK family firms. Family board members with significant firm-specific knowledge and long-term strategic perspectives may be better positioned to implement sophisticated tax planning strategies than families relying primarily on ownership control (Miller & Le Breton-Miller, 2005; Sirmon & Hitt, 2003; Bauweraerts & Colot, 2017; Calabrò, Vecchiarini, Gast, Campopiano, Massis & Kraus, 2019).

Minority shareholders in UK family firms may find that family board representation provides more predictable governance outcomes than ownership concentration, as board decisions operate within transparent regulatory frameworks that provide clearer accountability mechanisms (Goergen & Renneboog, 2001; Peasnell, Pope & Young, 2005).

6.8.2.3 Regulatory and Policy Implications

The results from the study provide practical implications for UK regulators. The evidence that family influence operates primarily through board representation rather than ownership concentration suggests that regulatory attention should focus on governance participation and board composition rather than ownership threshold monitoring (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998; Burkart, Panunzi & Shleifer, 2003; Dahya, Dimitrov & McConnell, 2008). Existing regulatory

requirement which encourages board independence and transparency may be good enough to monitor family influence while recognising legitimate family governance advantages (Peasnell, Pope & Young, 2005; Franks, Mayer & Rossi, 2009; Zattoni, Dedoulis & Leventis, 2021). The findings support the UK Corporate Governance Code's emphasis on board effectiveness and accountability, (Financial Reporting Council, 2018), suggesting that transparent governance processes may guide family influence towards taking advantages of value-creating activities while constraining potential expropriation behaviour. Tax policy implications suggest that regulations targeting aggressive tax avoidance should consider family board composition as a risk factor rather than focusing exclusively on ownership concentration proportion (Chen, Chen, Cheng & Shevlin, 2010; Badertscher, Katz & Rego, 2013; Gaertner, 2014).

These regulatory insights suggest that UK policymakers should continue emphasizing board effectiveness and transparency requirements, as these appear to be the most effective mechanisms of family influence in dispersed ownership contexts (Financial Reporting Council, 2018).

Building on Chapter 5's demonstration that governance mechanisms operate differently between family and non-family firms, this chapter reveals how different forms of family influence affect tax avoidance within family firms themselves. The consistent finding that family board representation enhances tax avoidance aligns with Chapter 5's evidence that family contexts enable different governance patterns, providing additional evidence for multi-dimensional approach to family governance research.

The chapter's findings set the foundation for Chapter 7's examination of how family influence moderates the effectiveness of specific governance mechanisms, enabling comprehensive understanding of optimal family governance configurations and their implications for firm strategy and performance.

6.9 Chapter Summary

This chapter examined how varying dimensions of family influence affect tax avoidance behaviour within UK family firms. Using System GMM analysis on a subsample of 40 family firms over 13 years (520 observations), the study tested three hypotheses about family ownership Proportion, family board representation, and joint family influence effects.

Key Findings:

- **H13 REJECTED:** Family ownership Proportion shows no significant effect on tax avoidance
- **H14 SUPPORTED:** Family board representation significantly increases tax avoidance
- **H15 SUPPORTED:** Joint family influence creates synergistic effects beyond individual components

Theoretical Contributions: The findings advance family governance theory by demonstrating the multidimensional nature of family influence, with strategic control through board representation dominating economic control through ownership concentration. These results challenge traditional agency theory assumptions and support resource-based and information asymmetry explanations of family governance effectiveness.

Practical Implications: Family firms should prioritize board representation for strategic influence, investors should focus on family board composition for risk assessment, and regulators should consider governance participation rather than ownership thresholds.

These findings establish the foundation for Chapter 7's analysis of how family influence moderates the effectiveness of specific governance mechanisms in determining tax avoidance outcomes.

7. Empirical Results: Moderating Role of Family Influence in Corporate Governance and Tax Avoidance of UK Family Firms

7.1 Introduction

Building on the insights from Chapters 5 and 6, this chapter examines how family influence dimensions moderate the effectiveness of specific governance mechanisms on tax avoidance behaviour. Chapter 5 demonstrated that governance mechanisms operate differently between family and non-family firms, revealing paradoxical effects such as board independence increasing rather than constraining tax avoidance in family contexts. Chapter 6 provided crucial insights into family influence mechanisms, establishing that family board representation ($FAMB = 0.0207^{***}$, $p < 0.001$) significantly drives tax avoidance while family ownership concentration shows no direct effect ($FAMO = -0.0003$, $p = 0.947$). Importantly, Chapter 6 revealed significant interaction effects between ownership and board representation ($FAMO \times FAMB = 0.0003^{**}$, $p = 0.008$), suggesting that family influence operates through complex moderating mechanisms rather than simple additive effects.

This chapter advances family governance theory by systematically examining how different dimensions of family influence, i.e. ownership concentration and board representation, moderate the relationship between formal governance mechanisms and tax avoidance outcomes. The analysis addresses a critical gap in family business literature where governance effectiveness is typically examined in isolation rather than as contingent on family involvement characteristics (Chrisman, Chua, Le Breton-Miller and Steier, 2018).

The chapter tests three comprehensive research questions: (1) How does family ownership concentration moderate corporate governance mechanisms' effects on tax avoidance? (2) How does family board representation alter governance mechanism effectiveness on tax avoidance behaviours of family firms? (3) Do the

combined family influence dimensions create joint moderation effects on corporate governance and tax avoidance relationships?

7.2 Theoretical Development and Hypotheses

7.2.1 Family Influence as Governance Moderator

This analysis builds on contingency theory applications to family governance, where organizational effectiveness depends on the fit between governance structures and contextual factors (Chrisman et al., 2018). Family influence represents a unique contingency factor that systematically alters how formal governance mechanisms translate into organizational outcomes like tax avoidance behaviours.

Agency Theory Extensions: Traditional agency theory assumes universal principal-agent relationships, but family influence creates multiple agency relationships that moderate standard governance mechanisms (Schulze, Lubtkin, Dino and Buchholtz, 2001; Chrisman et al., 2004). Family ownership concentration may also reduce Type I agency costs while potentially increasing Type II agency costs, affecting the normal behaviour of governance mechanisms (Villalonga & Amit, 2006).

Resource-Based Theory Applications: Family involvement provides unique resources that are critical for an effective tax avoidance strategy. They include firm-specific knowledge, long-term orientation, and informal coordination mechanisms, that enhance or substitute for formal governance structures (Barney, 1991; Sirmon & Hitt, 2003). Family board representation particularly enables resource deployment through direct strategic involvement rather than merely oversight functions.

Socioemotional Wealth (SEW) Theory: Family firms prioritize socioemotional wealth preservation, which moderates how governance mechanisms influence strategic decisions including tax planning (Gómez-Mejía et al., 2007; Berrone et al., 2012). Different family influence dimensions may increase or reduce SEW considerations, thereby moderating governance mechanism effectiveness on tax avoidance.

7.2.2 Governance Moderation Mechanisms

Family influence operates across multiple governance dimensions simultaneously, creating complex interaction patterns that extend beyond individual mechanism effects. The comprehensive approach recognizes that governance mechanisms function as integrated systems rather than independent components (Aguilera et al., 2008; Deutsch, Zaheer and Nahum, 2011). In family firm contexts, concentrated ownership and board representation may alter how these integrated governance systems influence decision making in corporate organisations.

Board Characteristics Moderation:

Family influence alters board characteristics through several mechanisms. Family ownership concentration affects information asymmetries and monitoring incentives, while family board representation provides direct strategic control channels (Villalonga and Amit, 2006; Miller, Le Breton-Miller and Cannella, 2007). Independent directors may face effectiveness issue when family influence is high, as family members possess superior firm-specific information (Anderson & Reeb, 2003; Bennedsen et al., 2007). Independent directors may face effectiveness challenges when family influence is high, as family members possess superior firm-specific information that can either enhance or constrain independent oversight functions (Anderson & Reeb, 2003; Bennedsen et al., 2007). Board structural characteristics (size, gender diversity, financial expertise) may be moderated by family influence through different coordination mechanisms, selection criteria, and performance expectations that distinguish family-controlled governance processes. Family ownership creates distinct strategic decision-making patterns where family control motivations systematically alter how governance mechanisms operate (Schweiger, Matzler, Hautz and De Masis, 2024). Evidence that family influence moderates board effectiveness across various strategic contexts, from internationalization decisions (Saurabh & Kumar, 2025) to strategic change processes (Schweiger, et al., 2024), supports the theoretical expectation that such moderation extends to tax governance outcomes.

Management Compensation Moderation

Management compensation mechanisms operate differently in family-controlled environments due to fundamentally altered agency relationships and performance measurement priorities. Traditional agency theory assumes compensation effectiveness depends on aligning manager and shareholder interests through financial incentives. However, this assumption may be different in family firms who pursue non-financial goals alongside economic returns, including socioemotional wealth preservation and long-term legacy building (Gómez-Mejía et al., 2003). This difference might be present in systematic moderation effects. When family ownership is concentrated, compensation becomes more responsive to performance, but the relationship varies significantly by ownership structure and management composition (Michiels, Voordeckers, Lybaert and Steijvers, 2013; Nguyen & Moursli, 2024). The effectiveness of compensation mechanisms also depends on which family members control governance processes. Founder-controlled firms demonstrate different compensation patterns than descendant-controlled firms, with board composition creating opposite effects across generational stages (Barontini & Bozzi, 2018).

These patterns reveal that family influence operates through multiple channels to alter compensation effectiveness. Rather than compensation mechanisms working uniformly across all firms, family characteristics may change how financial incentives translate into managerial behaviour. This moderation framework provides theoretical foundation for expecting similar effects in tax governance contexts, where family influence may systematically alter how governance mechanisms affect tax avoidance outcomes.

Regulatory Mechanisms Moderation

External auditing and regulatory compliance effectiveness may vary with family influence through differences in information transparency, stakeholder relationships, and regulatory scrutiny patterns. Audit committee effectiveness varies

significantly with family presence, with empirical evidence demonstrating that audit committee characteristics (size, expertise, meeting frequency) show positive and significant relationships with performance in non-family firms while remaining insignificant in family firms (Al-Okaily & Naueihed, 2019), indicating systematic moderation by family involvement. Audit quality effects are moderated by family governance strength, where strongly governed family firms choose higher quality audits through specialist auditor selection and demonstrate superior earnings quality compared to weakly governed family firms, while weakly governed family firms demand lower audit effort (Srinidhi et al., 2014). Family board composition creates additional moderation complexity, with audit committee effectiveness being significantly reduced when family members are present on corporate boards, particularly when family members dominate board positions (Jaggi & Leung, 2007). These empirical patterns demonstrate that family influence operates through multiple channels to systematically moderate regulatory mechanism effectiveness, providing strong theoretical basis for the comprehensive moderation framework examined in tax governance contexts throughout this chapter

Integrated Governance System

The individual mechanism analysis demonstrate that family influence systematically moderates governance effectiveness across multiple domains. While numerous evidence supports these moderation relationships, corporate organisation including family firms adopts all mechanisms simultaneously as integrated systems rather than isolated components (Aguilera et al., 2008). Family influence therefore moderates how this comprehensive governance systems function collectively to achieve outcomes such as tax avoidance management. This comprehensive moderation cannot be understood through individual mechanism analysis alone, requiring simultaneous examination of how family characteristics alter the effectiveness of multiple governance mechanisms working together

7.2.3 Research Hypotheses

The theoretical analysis above establishes that family influence operates through multiple channels to systematically moderate governance effectiveness in tax contexts. Family ownership concentration affects information asymmetries and monitoring incentives, while family board representation provides direct strategic control mechanisms. These mechanisms may operate independently or interact to create complex moderation patterns.

H16: Family Ownership Moderation Effects

Family ownership concentration moderates the relationship between governance mechanisms and tax avoidance, with higher ownership concentration altering the effectiveness of (a) board characteristics, (b) management compensation, and (c) regulatory mechanisms.

H17: Family Board Representation Moderation Effects

Family board representation moderate governance mechanism effectiveness, with higher board representation systematically altering how (a) board characteristics, (b) management compensation, and (c) regulatory mechanisms influence tax avoidance.

Given that family firms often exhibit both ownership concentration and board representation simultaneously, these influences may create interaction effects beyond their individual impacts:

H18: Combined Family Influence Moderation

Combined family influence (ownership concentration $\times$ board representation) creates combined moderation effects beyond individual components, demonstrating complementarity in family governance mechanisms.

These hypotheses test whether family ownership and board representation operate as distinct moderating forces and whether they function independently or interactively in altering governance effectiveness with respect to tax avoidance in family firms.

7.3 Methodology and Model Specifications

7.3.1 Sample and Analytical Approach

This analysis utilizes the same 40 UK family firms (520 observations, 2007-2019) from Chapter 6, enabling direct integration with established family influence findings. This focused approach enables detailed examination of within-family governance variation while maintaining sufficient statistical power for multiple interaction analysis.

Consistent with Chapters 5 and 6, System GMM serves as the primary estimation method to address endogeneity concerns inherent in governance-performance relationships. The established diagnostic framework ensures methodological validity through AR(1), AR(2), and model significance validation across all 6 interaction specifications.

7.3.2 Comprehensive Moderation Model Specification

The moderation analysis examines how family influence dimensions affect the relationship between governance mechanisms and corporate tax avoidance through two complementary analytical approaches.

Approach 1: Comprehensive Governance Moderation (Models 7.1A-C)

Model 7.1A: Family Ownership $\times$ Comprehensive Governance $LBOTD[i,t] = \alpha + \beta_1 LBOTD[i,t-1] + \beta_2 (FAMO \times BIND)[i,t] + \beta_3 (FAMO \times LBSIZE)[i,t] + \beta_4 (FAMO \times FEXB)[i,t] + \beta_5 (FAMO \times FBRD)[i,t] + \beta_6 (FAMO \times DRTP)[i,t] + \beta_7 (FAMO \times RCIN)[i,t] + \beta_8 (FAMO \times RCSZ)[i,t] + \beta_9 (FAMO \times FMRC)[i,t] + \beta_{10} (FAMO \times AUSZ)[i,t] + \beta_{11} (FAMO \times AUCH)[i,t] + \beta_{12} (FAMO \times AUDR)[i,t] + \beta_{13} (FAMO \times BIG4)[i,t] + \beta_{14} (FAMO \times FDAC)[i,t] + X'[i,t]\gamma + \varepsilon[i,t]$

Model 7.1B: Family Board Representation $\times$ Comprehensive Governance $LBOTD[i,t] = \alpha + \beta_1 LBOTD[i,t-1] + \beta_2 (FAMB \times BIND)[i,t] + \beta_3 (FAMB \times LBSIZE)[i,t] + \beta_4 (FAMB \times FEXB)[i,t] + \beta_5 (FAMB \times FBRD)[i,t] + \beta_6 (FAMB \times DRTP)[i,t] + \beta_7 (FAMB \times RCIN)[i,t] + \beta_8 (FAMB \times RCSZ)[i,t] +$

$$\beta_9(\text{FAMB} \times \text{FMRC})[i,t] + \beta_{10}(\text{FAMB} \times \text{AUSZ})[i,t] + \beta_{11}(\text{FAMB} \times \text{AUCH})[i,t] + \beta_{12}(\text{FAMB} \times \text{AUDR})[i,t] + \beta_{13}(\text{FAMB} \times \text{BIG4})[i,t] + \beta_{14}(\text{FAMB} \times \text{FDAC})[i,t] + X'[i,t]\gamma + \varepsilon[i,t]$$

Model 7.1C: Combined Family Influence $\times$ Comprehensive Governance

$$\begin{aligned} \text{LBOTD}[i,t] = & \alpha + \beta_1 \text{LBOTD}[i,t-1] + \beta_2(\text{FAMO} \times \text{FAMB} \times \text{BIND})[i,t] + \\ & \beta_3(\text{FAMO} \times \text{FAMB} \times \text{LBSZE})[i,t] + \beta_4(\text{FAMO} \times \text{FAMB} \times \text{FEXB})[i,t] + \\ & \beta_5(\text{FAMO} \times \text{FAMB} \times \text{FBRD})[i,t] + \beta_6(\text{FAMO} \times \text{FAMB} \times \text{DRTP})[i,t] + \\ & \beta_7(\text{FAMO} \times \text{FAMB} \times \text{RCIN})[i,t] + \beta_8(\text{FAMO} \times \text{FAMB} \times \text{RCSZ})[i,t] + \\ & \beta_9(\text{FAMO} \times \text{FAMB} \times \text{FMRC})[i,t] + \beta_{10}(\text{FAMO} \times \text{FAMB} \times \text{AUSZ})[i,t] + \\ & \beta_{11}(\text{FAMO} \times \text{FAMB} \times \text{AUCH})[i,t] + \beta_{12}(\text{FAMO} \times \text{FAMB} \times \text{AUDR})[i,t] + \\ & \beta_{13}(\text{FAMO} \times \text{FAMB} \times \text{BIG4})[i,t] + \beta_{14}(\text{FAMO} \times \text{FAMB} \times \text{FDAC})[i,t] + X'[i,t]\gamma + \\ & \varepsilon[i,t] \end{aligned}$$

Approach 2: Individual Board Characteristics Moderation (Models 7.2A-C)

Model 7.2A: Family Ownership $\times$ Individual Board Characteristics

$$\text{LBOTD}[i,t] = \alpha + \beta_1 \text{LBOTD}[i,t-1] + \beta_2(\text{FAMO} \times \text{BIND})[i,t] + \beta_3(\text{FAMO} \times \text{LBSZE})[i,t] + \beta_4(\text{FAMO} \times \text{FEXB})[i,t] + \beta_5(\text{FAMO} \times \text{FBRD})[i,t] + X'[i,t]\gamma + \varepsilon[i,t]$$

Model 7.2B: Family Board Representation $\times$ Individual Board Characteristics

$$\begin{aligned} \text{LBOTD}[i,t] = & \alpha + \beta_1 \text{LBOTD}[i,t-1] + \beta_2(\text{FAMB} \times \text{BIND})[i,t] + \\ & \beta_3(\text{FAMB} \times \text{LBSZE})[i,t] + \beta_4(\text{FAMB} \times \text{FEXB})[i,t] + \beta_5(\text{FAMB} \times \text{FBRD})[i,t] + X'[i,t]\gamma \\ & + \varepsilon[i,t] \end{aligned}$$

Model 7.2C: Combined Family Influence $\times$ Individual Board Characteristics

$$\begin{aligned} \text{LBOTD}[i,t] = & \alpha + \beta_1 \text{LBOTD}[i,t-1] + \beta_2(\text{FAMO} \times \text{FAMB} \times \text{BIND})[i,t] + \\ & \beta_3(\text{FAMO} \times \text{FAMB} \times \text{LBSZE})[i,t] + \beta_4(\text{FAMO} \times \text{FAMB} \times \text{FEXB})[i,t] + \\ & \beta_5(\text{FAMO} \times \text{FAMB} \times \text{FBRD})[i,t] + X'[i,t]\gamma + \varepsilon[i,t] \end{aligned}$$

Where $X'[i,t]$ represents the vector of control variables (LLVRG, FSZE, LRTAS, LAGE) and $\varepsilon[i,t]$ is the error term.

7.4 Empirical Results

7.4.1 Comprehensive Governance Moderation Results

Table 7.1 (Model 7.1 A & B) below presents the results from the moderating effect of family ownership (FAMO) and family board representation (FAMB) while Table 7.2 (Model C) presents results for the combined effect of family ownership and board representation (FAMO_FAMB).

Model 7.1A (Family Ownership Moderation)

Family ownership concentration demonstrates significant positive moderation effects across multiple governance categories in tax avoidance contexts. Board independence moderation shows the strongest effect ($FAMO \times BIND = 0.007427^{***}$), indicating that family ownership significantly enhances how independent directors influence tax avoidance outcomes. Family ownership also creates notable moderation of director compensation effectiveness ($FAMO \times DRTP = 0.0370682^{**}$), suggesting that ownership concentration amplifies how compensation mechanisms affect tax strategy decisions. Regulatory mechanism enhancement appears through audit committee moderation ($FAMO \times AUCH = 0.0146313^{**}$), demonstrating that family ownership increases audit committee effectiveness in tax governance oversight. Additionally, family ownership shows significant negative moderation of compensation size ($FAMO \times RCSZ = -0.0043706^{**}$), indicating that larger compensation packages become less effective in influencing tax avoidance when family ownership is concentrated. These results demonstrate that family ownership concentration creates broad-based moderation effects across multiple governance mechanisms in tax contexts.

Model 7.1B (Family Board Representation Moderation)

Family board representation demonstrates more concentrated moderation effects on tax avoidance outcomes compared to ownership concentration. Only board independence moderation achieves significance ($FAMB \times BIND = 0.0008935^{***}$), indicating that family board representation enhances tax avoidance effectiveness

specifically through independent director decision-making. All other interactions across management compensation and regulatory mechanisms remain non-significant, suggesting that family board presence creates focused rather than broad effects on tax strategy outcomes. This selective pattern indicates that family board representation operates through a single primary channel in tax governance contexts, concentrating its influence on board independence rather than affecting compensation-based or regulatory-based tax governance mechanisms.

Model 7.1C (Combined Family Influence Moderation) reveals limited interaction effects on tax avoidance outcomes compared to individual influence. Significant results were achieved in only two interactions i.e. board independence moderation ($\text{FAMO_FAMB} \times \text{BIND} = 0.000025^{**}$) and director compensation moderation ($\text{FAMO_FAMB} \times \text{DRTP} = 0.0018388^{**}$). The coefficients for combined effects are substantially smaller than individual moderation effects, suggesting that family ownership and board representation work through separate channels rather than together to influence tax avoidance. This pattern indicates that combining both family influence types provides only small additional benefits for tax governance beyond their individual effects. The results suggest that family firms may achieve better tax outcomes by focusing on either strong ownership concentration or active board representation rather than trying to maximize both simultaneously.

Diagnostic Performance shows acceptable level of validity across all specifications, with AR(2) p-values consistently exceeding 0.10 (0.8983, 0.5400, 0.7195 respectively), indicating appropriate instrument validity. Model significance is strong across all approaches, though the combined family influence model shows somewhat lower overall significance ($\text{Wald Chi}^2 = 205.48$) compared to individual moderation models (309.42 and 530.41 respectively) (Roodman, 2009)

7.4.2 Individual Board Characteristics Moderation Results

The individual board characteristics analysis presents how components of family influence moderate board governance effects on corporate tax avoidance strategies.

Model 7.2A (Family Ownership Moderation) demonstrates that family ownership concentration significantly moderates how board structural elements influence tax avoidance behaviours. Board independence moderation shows strong positive effects ($FAMO \times BIND = 0.0004629^{***}$), indicating that family ownership increases the tax avoidance benefits of independent directors, likely through enhanced strategic coordination. Board size moderation exhibits significant negative effects ($FAMO \times LBSIZE = -0.0110777^{**}$), suggesting family ownership reduces tax avoidance effectiveness as boards expand, potentially due to coordination difficulties in larger governance structures. Female executive representation shows marginal negative moderation ($FAMO \times FEXB = -0.0002438^*$), indicating that family ownership may reduce aggressive tax strategies in the presence of directors with financial expertise, possibly due to enhanced scrutiny of complex tax arrangements.

Model 7.2B (Family Board Representation Moderation) exhibits concentrated effects majorly through board independence mechanisms. Only board independence moderation achieves significance ($FAMB \times BIND = 0.0005796^{**}$), suggesting that family board representation may enhance tax avoidance effectiveness primarily through independent director decision-making rather than other board characteristics. All other board characteristic interactions remain non-significant, indicating that family board presence does not moderate how board size, gender diversity, or financial expertise on the board affect tax avoidance strategies.

Model 7.2C (Combined Family Influence Moderation) reveals minimal joint effects on tax avoidance through board characteristics. Board independence shows marginal significance ($FAMO_FAMB \times BIND = 0.0000161^{**}$) with seemingly small coefficients, while board size effects are marginally negative ($FAMO_FAMB \times LBSIZE = -0.0003264^*$). These small, joint interaction effects suggest that the moderation mechanisms affect tax avoidance through different

governance mechanisms rather than jointly. This is consistent with the distinct moderation patterns observed in **Models 7.2A and 7.2B** where family ownership shows broad-based moderation while family board representation demonstrates concentrated effects.

7.4.3 Diagnostic Performance and Model Validity

All models demonstrate acceptable diagnostic performance, confirming the validity of the System GMM estimation approach. AR(2) tests consistently show p-values exceeding 0.10 across all specifications (0.8983, 0.5400, 0.7195 for comprehensive governance models; 0.4472, 0.4831, 0.6254 for individual board characteristics models), indicating appropriate instrument validity and absence of second-order serial correlation (Roodman, 2009).

Model significance varies across specifications, with family ownership moderation demonstrating the strongest overall fit (Wald $\chi^2 = 530.41^{***}$ for comprehensive governance; 210.58*** for board characteristics). Family board representation models show moderate significance (Wald $\chi^2 = 309.42^{***}$ and 179.52***), while combined family influence models exhibit lower but acceptable significance levels (Wald $\chi^2 = 205.48^{***}$ and 123.31***).

The diagnostic results validate the methodological approach and confirm that endogeneity concerns inherent in governance-performance relationships are adequately addressed through the System GMM framework.

Table 7.1: Model 7.1 A & B Family Ownership & Family Board Moderation Effect

Variable	Model 7.1A	Model 7.1B
	Family Ownership	Family Board
	Moderation	Moderation
Main Effects		
LBOTD (L1)	-0.0256	0.1313
	(0.1106)	(0.0858)
Board Interactions		
FAMOBIND/FAMBBIND	0.0007***	0.0009***
	(0.0002)	(0.0002)
FAMOLBSZE/FAMBLBSZE	-0.0111	0.0006
	(0.0093)	(0.0202)
FAMOFEXB/FAMBFEXB	-0.0002	-0.0002
	(0.0002)	(0.0002)
FAMOFBRD/FAMBFBRD	0.0004	-0.0003
	(0.0003)	(0.0004)
Compensation Interactions		
FAMODRTP/FAMBRTP	0.0371**	0.0176
	(0.0164)	(0.0229)
FAMORCIN/FAMBRCIN	-0.0135	0.0012
	(0.0168)	(0.0085)
FAMORCSZ/FAMBRCSZ	-0.0043**	-0.0020
	(0.0020)	(0.0041)
Regulatory Interactions		

Variable	Model 7.1A	Model 7.1B
FAMOFMRC/FAMBFMRC	-0.0063	-0.0111
	(0.0137)	(0.0136)
FAMOAUSZ/FAMBAUSZ	-0.0003	-0.0008
	(0.0025)	(0.0033)
FAMOAUCH/FAMBAUCH	0.0146**	0.0062
	(0.0061)	(0.0094)
FAMOAUDR/FAMBAUDR	-0.0095	-0.0275
	(0.0103)	(0.0184)
Other Interactions		
FAMOBIG4/FAMBBIG4	0.0057	-0.0140
	(0.0090)	(0.0131)
FAMOFDAC/FAMBFDAC	-0.0231	-0.0219
	(0.0148)	(0.0174)
Control Variables		
LLVRG	0.0773	0.0624
	(0.0515)	(0.0431)
FSZE	-0.3749**	-0.5359***
	(0.1644)	(0.1399)
LRTAS	0.0611	0.0695
	(0.0481)	(0.0526)
LAGE	-0.6025*	-0.0388
	(0.3195)	(0.2097)
_cons	7.7840***	6.8887***

Variable	Model 7.1A	Model 7.1B
	(1.6868)	(1.2863)

Table 7.2: Model 7.1C - Combined Family Ownership-Board Interactions

Variable	Model 7.1C
	FAMO × FAMB
	Interactions
Main Effects	
LBOTD (L1)	0.0549
	(0.0837)
Combined Family Interactions	
FAMO_FAMBBIND	0.0000**
	(0.0001)
FAMO_FAMBLBSZE	-0.0005
	(0.0005)
FAMO_FAMBFEXB	-1.13e-06
	(0.0000)
FAMO_FAMBFBRD	3.28e-06
	(0.0000)
FAMO_FAMBRTP	0.0018**
	(0.0009)
FAMO_FAMBRGIN	-0.0001
	(0.0005)
FAMO_FAMBRCSZ	-0.0001
	(0.0002)

Variable	Model 7.1C
FAMO_FAMBFMRC	-0.0000
	(0.0008)
FAMO_FAMBAUSZ	-0.0000
	(0.0001)
FAMO_FAMBAUCH	0.0000
	(0.0004)
FAMO_FAMBAUDR	-0.0008
	(0.0005)
FAMO_FAMBBIG4	0.0002
	(0.0003)
FAMO_FAMBFDAC	-0.0011
	(0.0008)
Control Variables	
LLVRG	0.1122
	(0.0691)
FSZE	-0.9634*
	(0.5504)
LRTAS	0.0903
	(0.0660)
LAGE	-0.3435
	(0.3317)
_cons	11.7224**
	(5.4681)
Model Statistics	Model 7.1C
Observations	478

Variable	Model 7.1C
Number of groups	40
Wald χ^2	205.48***
AR(1) test p-value	0.0006
AR(2) test p-value	0.720

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Two-step system GMM estimation. See Appendix Table A7.1ABC for complete statistical details including confidence intervals and full diagnostic tests

Table 7.3: Model 7.2 A & B - Family Ownership vs Family Board Moderation of Individual Board Characteristics

Variable	Model 7.2A	Model 7.2B
	Family Ownership	Family Board
	Board Moderation	Board Moderation
Main Effects		
LBOTD (L1)	0.1159***	0.1201**
	(0.0319)	(0.0423)
Board Characteristic Interactions		
FAMOBIND/FAMBBIND	0.0004***	0.0010**
	(0.0001)	(0.0002)
FAMOLBSIZE/FAMBLBSZE	-0.0111**	-0.0140
	(0.0044)	(0.0087)
FAMOFEXB/FAMBFEXB	-0.0002*	-0.0001

Variable	Model 7.2A	Model 7.2B
	(0.0001)	(0.0001)
FAMOFBRD/FAMBFBRD	0.0000	-0.0004
	(0.0002)	(0.0003)
Control Variables		
LLVRG	0.1097**	0.1003**
	(0.0415)	(0.0370)
FSZE	-0.4929	-0.4488***
	(0.3016)	(0.1123)
LRTAS	0.0128	0.0442
	(0.0384)	(0.0280)
LAGE	-0.1767*	-0.0949
	(0.0931)	(0.1094)
_cons	7.0472**	6.4837***
	(2.6116)	(1.0367)

Model Statistics	Model 7.2A	Model 7.2B
Observations	477	477
Number of groups	40	40
Wald $\chi^2(9)$	210.58***	179.52***
AR(1) test p-value	0.0001	0.0001
AR(2) test p-value	0.447	0.483

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Two-step system GMM estimation focusing on individual board characteristics. See Appendix Tables A7.2A-B for

complete statistical details including confidence intervals and full diagnostic tests.

Table 7.4 Model 7.2C - Combined Family Ownership-Board Interactions with Individual Board Characteristics

Variable	Model 7.2C
	FAMO × FAMB
	Board Interactions
Main Effects	
LBOTD (L1)	0.0878**
	(0.0371)
Combined Family Board Interactions	
FAMO_FAMBLBSIZE	-0.0003
	(0.0002)
FAMO_FAMBBIND	0.0000**
	(6.10e-06)
FAMO_FAMBFEXB	-6.97e-06
	(5.99e-06)
FAMO_FAMBFBRD	-0.0000
	(0.0000)
Control Variables	
LLVRG	0.0583*
	(0.0328)
FSZE	-0.4476***
	(0.1109)

Variable	Model 7.2C
LRTAS	0.0235
	(0.0299)
LAGE	-0.2662**
	(0.1332)
_cons	7.0858***
	(0.8464)

Model Statistics	Model 7.2C
Observations	478
Number of groups	40
Wald $\chi^2(9)$	123.31***
AR(1) test p-value	0.0002
AR(2) test p-value	0.625

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Two-step system GMM estimation focusing on combined family ownership-board interactions with individual board characteristics. See Appendix Table A7.2C for complete statistical details including confidence intervals and full diagnostic tests.

7.4.4 Hypothesis Summary

The empirical results provide varying levels of support for the three research hypotheses testing family influence moderation effects in tax governance contexts.

H16: Family Ownership Moderation Effects - STRONGLY SUPPORTED

H16 predicted that family ownership concentration moderate governance mechanism effectiveness across (a) board characteristics, (b) management compensation, and (c) regulatory mechanisms. The results provide strong empirical support across all predicted domains. Family ownership demonstrates significant moderation of board independence ($FAMO \times BIND = 0.007427^{***}$), director compensation ($FAMO \times DRTP = 0.0370682^{**}$), audit committee effectiveness ($FAMO \times AUCH = 0.0146313^{**}$), and remuneration committee size ($FAMO \times RCSZ = -0.0043706^{**}$). The broad-based significance across multiple governance categories confirms that family ownership concentration systematically alters governance mechanism effectiveness in tax contexts.

H17: Family Board Representation Moderation Effects - PARTIALLY SUPPORTED

H17 predicted that family board representation moderate governance effectiveness across the same three domains. The results provide partial support, with significant effects concentrated primarily in board characteristics. Family board representation shows consistent moderation of board independence across both comprehensive ($FAMB \times BIND = 0.0008935^{***}$) and individual ($FAMB \times BIND = 0.0005796^{**}$) governance analyses. However, management compensation and regulatory mechanism moderation effects remain largely non-significant, indicating that board representation operates through more selective mechanisms than predicted.

H18: Combined Family Influence Moderation - LIMITED SUPPORT

H18 predicted joint / combined moderation effects when family ownership and board representation operate simultaneously. The results provide limited support,

with only selective interaction effects achieving significance. Combined moderation appears for board independence (FAMO_FAMB×BIND = 0.000025**) and director compensation (FAMO_FAMB×DRTP = 0.0018388**), but effect magnitudes are substantially smaller than individual moderation effects. This pattern suggests parallel rather than combined family influence channels, contradicting the complementarity predictions.

7.4.5 Robustness Analysis: GMM and Fixed Effects Validation

Table 7.5 Robustness Analysis - Key Interaction Effects Across Methods

Interaction Term	System GMM	Fixed Effects	Consistency Assessment
Family Ownership Moderation			
FAMO×BIND	0.007427*** (0.0002295)	0.000444** (0.0002028)	Consistent positive significance
FAMO×DRTP	0.0370682** (0.0164083)	0.0339305*** (0.0118687)	Consistent positive significance
FAMO×AUCH	0.0146313** (0.0060526)	0.0091355* (0.0047034)	Consistent positive significance
FAMO×LBSIZE	-0.0110685 (0.0093473)	-0.0054663 (0.0095742)	Consistent negative (non-sig)
Family Board Representation Moderation			
FAMB×BIND	0.0008935*** (0.0002426)	0.0005965* (0.0003457)	Consistent positive significance
FAMB×DRTP	0.0173537 (0.0228746)	0.0317489 (0.0221451)	Consistent positive (non-sig)

Interaction Term	System GMM	Fixed Effects	Consistency Assessment
FAMB×AUCH	0.002237 (0.0093674)	0.0102958 (0.0094411)	Consistent positive (non-sig)
FAMB×LBSIZE	0.0005691 (0.0202367)	0.0044947 (0.0164733)	Consistent positive (non-sig)
Combined Family Influence Moderation			
FAMO_FAMB×BIND	0.000025** (0.0000107)	0.0000195** (9.61e-06)	Consistent positive significance
FAMO_FAMB×DRTP	0.0018388** (0.0008662)	0.0017856** (0.0007049)	Consistent positive significance

*Notes: Standard errors in parentheses. *, **, *** indicate significance at 10%, 5%, and 1% levels respectively. System GMM results from comprehensive governance models (Table 7.1). Fixed Effects results use robust standard errors clustered by firm. Sample period: 2008-2019 for all models due to lagged dependent variable.

7.4.5.1 Robustness Analysis Interpretation

Table 7.5 provides strong evidence for the reliability of key family influence moderation effects across distinct estimation methods. Both family ownership and family board representation moderation of board independence show consistent positive significance across System GMM and Fixed Effects estimations, providing strong support for the dual-channel family influence theory in explaining how governance mechanisms affect corporate tax strategies.

Family Ownership Moderation Consistency: The robustness tests demonstrate that family ownership consistently enhances the effectiveness of governance mechanisms in influencing tax avoidance outcomes. FAMO×BIND maintains positive and significant effects across both methods (GMM: 0.007427***, FE: 0.000444**), confirming that concentrated family ownership strengthens how board

independence affects tax strategy decisions. FAMO×DRTP shows strong positive significance across estimations (GMM: 0.0370682**, FE: 0.0339305***), indicating that family ownership reliably enhances how director compensation mechanisms influence tax-related performance outcomes. FAMO×AUCH demonstrates consistent positive effects with maintained significance levels, supporting the finding that family ownership improves audit committee effectiveness in overseeing tax compliance and strategy implementation. This cross-method consistency strengthens confidence that family ownership moderation represents a genuine governance mechanism rather than methodological artifact in explaining corporate tax avoidance behaviour.

Family Board Representation Moderation Patterns: The robustness analysis reveals more distinctive patterns for family board representation moderation effects on tax avoidance mechanisms. FAMB×BIND maintains positive significance across methods (GMM: 0.0008935***, FE: 0.0005965*), though with reduced significance in Fixed Effects estimation. This implies family board presence consistently enhances how board independence influences tax strategy effectiveness, albeit with some methodological differences. FAMB×DRTP and FAMB×AUCH demonstrate consistent directional effects but remain non-significant across both estimation approaches, supporting the finding that board representation moderation operates through more limited channels in comprehensive governance contexts affecting tax outcomes. This pattern confirms that while family board representation provides strong direct influence on tax avoidance as established in Chapter 6, its capacity to moderate how other governance mechanisms affect tax strategies is more constrained compared to family ownership concentration. This suggests that board representation operates primarily through direct strategic control rather than broad-based enhancement of governance-tax relationships.

7.4.5.2 Methodological Insights

The magnitude differences between System GMM and Fixed Effects coefficients are consistent with their respective methodological approaches to addressing

endogeneity concerns in governance research (Wintoki et al., 2012; Flannery & Hankins, 2013). System GMM produces larger coefficients for key interactions because it explicitly addresses simultaneity and reverse causality through instrumental variable techniques, which is particularly important given that governance choices and tax strategies are likely determined jointly (Arellano & Bover, 1995; Blundell & Bond, 1998). Fixed Effects provides more conservative estimates by controlling for unobserved firm heterogeneity while maintaining directional consistency and significance for the most robust moderation effects (Wooldridge, 2010). The fact that both methods yield consistent directional effects and significance for the strongest family influence moderation mechanisms strengthens confidence in the reliability of the dual-channel family governance theory. This is primarily because the core findings are not driven by methodological choices but represent genuine relationships between family influence and governance effectiveness in tax strategy contexts in the UK.

7.4.5.3 Theoretical Validation

The consistency of key moderation effects across methods strengthens confidence in the theoretical conclusions regarding dual-channel family influence operation and the dominance of ownership moderation in comprehensive governance contexts affecting tax avoidance outcomes. The robustness of board independence moderation across both family influence dimensions provides strong support for the resolution of the Chapter 5 board independence “inconsistency” through family information advantage mechanisms. Specifically, the consistent positive moderation effects (FAMO×BIND and FAMB×BIND both positive and significant across both methods) confirm that family influence enhances rather than constrains the effectiveness of independent directors in tax strategy decisions. This resolves the paradox by demonstrating that independent directors in family firms are not captured or compromised but rather benefit from family members' superior information about business operations, tax risks, and long-term strategic implications (Anderson & Reeb, 2004). The family's deep knowledge of the firm's

tax profile, accumulated over years of involvement, enables independent directors to make more informed decisions about tax planning opportunities and compliance requirements (Wu, Sorensen and Sun, 2019). This largely aligns with studies that support the positive relationship between independent directors and tax avoidance behaviours (McClure, Lanis, Wells, Governdir, 2018; Richardson, Lanis and Taylor 2015). The robustness across estimation methods confirms that this information advantage mechanism is genuine rather than a consequence of methodological choices. It therefore provides strong empirical support for the opinion that family influence creates complementary rather than competing relationships with formal governance mechanisms in tax strategy contexts (Wu, Soresnsen and Sun, 2019).

Combined Family Influence Robustness: The consistency of combined family influence effects across System GMM and Fixed Effects methods provides strong validation for complementarity theory applications. Both FAMO_FAMB×BIND (GMM: 0.000025**, FE: 0.0000195**) and FAMO_FAMB×DRTP (GMM: 0.0018388**, FE: 0.0017856**) show nearly identical coefficients and maintained significance levels, confirming that selective synergy effects between ownership concentration and board representation are methodologically robust rather than random estimation outcome.

7.4.6 Analysis Scope and Methodological Justification

Strategic Focus on Comprehensive Governance

This chapter prioritizes comprehensive governance analysis (Table 7.1ABC) over all individual mechanism groups for several methodological and theoretical reasons. The comprehensive governance approach provides superior practicability by examining all mechanisms simultaneously. This reveals which variable is moderated in the presence of all other available governance mechanisms in realistic organizational contexts. This addresses a critical limitation in existing literature where governance mechanisms are typically studied in isolation despite operating as integrated systems.

Board Characteristics Selection Rationale

The individual governance component analysis focuses on only board characteristics moderation for several theoretical and empirical reasons. First, board governance represents the core domain of agency theory and family business literature (Fama & Jensen, 1983; Anderson & Reeb, 2004), providing the strongest theoretical foundation for understanding family influence moderation effects on corporate tax avoidance strategies. Second, the board independence reversal established in Chapter 5, where independence increased rather than decreased tax avoidance in family firms, requires detailed moderation analysis to understand the underlying mechanisms driving these tax outcomes, particularly given established evidence that board characteristics significantly influence corporate avoidance decisions (Huang and Zhang, 2020; Hsu et al., 2018; Abdul wahab et al., 2017; Halilou et al., 2016; Armstrong et al., 2015). Third, board characteristics demonstrate the strongest and most consistent moderation effects on tax avoidance across both individual and comprehensive governance models, with FAMO×BIND showing the largest coefficient (0.007427***) among all governance interactions tested in explaining tax strategy variations. Finally, board representation emerged as the dominant family influence mechanism for direct tax avoidance effects in Chapter 6, making board characteristics moderation theoretically central to understanding how family governance operates in practice to influence corporate tax planning and compliance decisions, especially given that family firms demonstrate distinct tax behaviours compared to non-family firms (Chen et al., 2010; Villalonga & Amit, 2006).

Methodological Design Philosophy

The multi-level analytical strategy combining comprehensive governance analysis, detailed board characteristics examination, and cross-method validation provides robust evidence for family influence moderation effects. This approach demonstrates that key findings persist across different levels of analytical complexity, from individual mechanisms through comprehensive systems, supporting the

reliability and generalizability of findings. The focus on theoretically significant mechanisms over all variables is based on the need to prioritize depth and rigor over breadth.

7.5 Discussion, Theoretical Integration and Practical Implications

This chapter's moderation analysis reveals fundamental insights into how family influence operates within corporate governance systems to affect tax avoidance strategies, with particular focus to the UK. The findings demonstrate that family governance mechanisms function through distinct but complementary channels that have not been adequately distinguished in existing literature. By examining both comprehensive governance systems and individual board characteristics, the analysis uncovers the complex patterns of family influence that help reconcile theoretical contradictions between direct effects (Chapter 6) and moderation effects (Chapter 7). The following discussion integrates these findings into relevant theoretical framework and explores their methodological implications for governance research. The section also, examines their practical significance for family firm governance particularly with respect to tax avoidance strategy.

7.5.1 Comprehensive Governance Moderation

7.5.1.1 Family Ownership Moderation: Broad Enhancement Effects (Model 7.1A)

Family Ownership demonstrates significant positive effects across multiple governance categories, indicating that family ownership concentration enhances governance mechanisms' capacity to influence tax avoidance outcomes. Board independence moderation shows the strongest effect ($FAMO \times BIND = 0.007427^{***}$), suggesting that family ownership transforms independent directors from tax avoidance constraints into strategic tax planning facilitators, consistent with evidence that family influence enhances rather than diminishes board effectiveness in strategic decision-making (Srinidhi et al., 2014). Notable compensation moderation ($FAMO \times DRTP = 0.0370682^{**}$) indicates that family ownership amplifies how director compensation influences tax strategy decisions, aligning with

findings that family characteristics systematically alter pay-for-performance relationships in strategic contexts (Michiels et al., 2013). Regulatory mechanism enhancement ($FAMO \times AUCH = 0.0146313^{**}$) demonstrates that family ownership increases the effectiveness of the tax avoidance strategy through the presence of audit charter, supporting evidence that family influence modifies regulatory compliance patterns (Al-Okaily & Naueihed, 2019).

Additionally, family ownership shows significant negative moderation of remuneration committee size ($FAMO \times RCSZ = -0.0043706$), indicating that larger remuneration committees become less effective in influencing tax avoidance when family ownership is concentrated. This pattern suggests that family ownership may reduce the effectiveness of formal committee-based compensation oversight, possibly because family influence creates alternative governance mechanisms that substitute for traditional committee monitoring. When family ownership provides direct oversight of management compensation decisions, expanding the remuneration committee size may create coordination difficulties or dilute decision-making effectiveness rather than enhancing governance quality.

7.5.1.2 Family Board Representation: Focused Moderation Effects (Model 7.1B)

The family board representation results show a focused pattern that differs from ownership concentration effects. Only board independence moderation achieves significance ($FAMB \times BIND = 0.0008935^{***}$), while all other governance mechanisms show no significant moderation effects. This concentrated pattern reveals that family board representation works through a single channel in tax governance, enhancing how independent directors influence tax avoidance outcomes. Unlike family ownership which creates broad effects across multiple governance mechanisms, board representation creates targeted enhancement in one specific area.

The selective effectiveness suggests that family board members use their position to improve independent directors' tax planning capabilities rather than affecting

compensation or regulatory mechanisms. This focused approach contrasts with ownership concentration's wide-ranging governance enhancement. These findings provide evidence for distinct family influence pathways in tax governance. Board representation serves as a targeted intervention mechanism while ownership concentration provides broad-based governance enhancement across multiple domains.

7.5.1.3 Combined Family Influence Moderation) Model 7.1C

The Combined Family Influence Moderation reveals selective combined effects on tax governance rather than broad-based interaction patterns. Only two interactions achieve significance: board independence moderation ($FAMO_FAMB \times BIND = 0.000025^{**}$) and director compensation moderation ($FAMO_FAMB \times DRTP = 0.0018388^{**}$), indicating that combined family influence creates limited additive effects on tax avoidance outcomes. The coefficients for combined effects are substantially smaller than individual moderation effects, suggesting that family ownership and board representation operate through parallel rather than interactive channels in tax governance contexts. This pattern indicates complementarity rather than combined enhancement, where the combined presence of both family influence dimensions provides modest additional tax governance benefits beyond their separate effects. The small magnitude of interaction coefficients suggests that family firms may optimize tax strategies more effectively by leveraging either ownership concentration or board representation rather than relying on both mechanisms simultaneously.

7.5.2 Individual Board Characteristics: Distinct Moderation Mechanisms

The individual board characteristics analysis reveals how family influence dimensions create different moderation patterns when governance mechanisms are examined separately rather than as comprehensive systems.

7.5.2.1 Family Ownership: Broad Board-Level Effects

Family ownership concentration demonstrates systematic moderation across multiple board characteristics, indicating broad-based influence on board

governance effectiveness. The strong positive board independence moderation ($\text{FAMO} \times \text{BIND} = 0.0004629^{***}$) confirms that family ownership enhances independent directors' tax planning capabilities, consistent with the comprehensive governance findings. However, the significant negative board size moderation ($\text{FAMO} \times \text{LBSIZE} = -0.0110777^{**}$) reveals that family ownership becomes less effective as boards expand, suggesting coordination challenges in larger governance structures. The marginal negative effect on financial expertise moderation ($\text{FAMO} \times \text{FEXB} = -0.0002438^*$) indicates that family ownership may reduce aggressive tax strategies when directors possess enhanced financial knowledge, possibly reflecting more conservative tax approaches under increased oversight.

7.5.2.2 Family Board Representation: Focused Independence Enhancement

Family board representation shows concentrated effects exclusively through board independence moderation ($\text{FAMB} \times \text{BIND} = 0.0005796^{**}$), with no significant effects on board size, gender diversity, or financial expertise. This selective pattern reinforces the finding from comprehensive governance analysis that board representation operates through targeted rather than broad-based mechanisms. The exclusive focus on independence moderation suggests that family board members specifically enhance independent directors' effectiveness without affecting other board structural elements.

7.5.2.3 Combined Effects: Minimal Interaction Benefits

The combined family influence results show only marginal effects on board independence ($\text{FAMO_FAMB} \times \text{BIND} = 0.0000161^{**}$) and board size ($\text{FAMO_FAMB} \times \text{LBSIZE} = -0.0003264^*$), with substantially smaller coefficients than individual effects. This pattern confirms that family ownership and board representation operate through separate channels rather than creating additive benefits in board governance contexts. These findings validate the distinct pathways identified in comprehensive governance analysis, demonstrating that family

influence mechanisms maintain their characteristic patterns across different analytical approaches

7.5.3 Key Insights and theoretical Integration

7.5.3.1 Dual-Channel Role of Family Influence: An Exploratory Framework

The comprehensive moderation analysis reveals an empirical pattern that suggests family influence may operate through dual channels that existing literature has not fully distinguished. These patterns help reconcile the apparent differences between Chapter 6 and Chapter 7 findings, though the underlying mechanisms require careful interpretation.

Channel 1: Direct Strategic Control (Chapter 6 Evidence)

The evidence from Chapter 6 demonstrates that family board representation dominates direct influence on corporate tax avoidance outcomes. Family board representation shows a highly significant effect ($FAMB = 0.0207^{***}$) whilst family ownership concentration shows virtually no direct impact ($FAMO = -0.0003$, non-significant). This pattern aligns with theoretical expectations that physical presence on the board provides immediate access to tax-related decision-making processes. Family board members can leverage their firm-specific knowledge and long-term orientation to influence tax strategy decisions directly (Habbershon & Williams, 1999). This finding is consistent with resource-based theory and evidence that family firms possess superior internal information that can be deployed strategically (Anderson & Reeb, 2003; Kraaijenbrink, Spender, & Groen, 2010).

Channel 2: Governance Moderation Capacity (Chapter 7 Evidence)

Chapter 7 reveals a different pattern when examining how family influence moderates' governance mechanisms' effectiveness. Here, family ownership concentration emerges as the dominant force, with ownership moderation effects ($FAMO \times BIND = 0.007427^{***}$) proving 8.3 times stronger than board representation moderation ($FAMB \times BIND = 0.0008935^{***}$) in influencing how

board independence affects tax avoidance outcomes. This ownership dominance extends across multiple governance mechanisms, including director compensation ($FAMO \times DRTP = 0.0371^{**}$) and audit committee effectiveness ($FAMO \times AUCH = 0.0146^{**}$), while board representation shows concentrated effects primarily on independence. Contingency theory suggests that concentrated ownership may create conditions where formal governance structures operate more effectively by providing clearer accountability and enhanced information flow (Donaldson, 2001; Drazin & Van de Ven, 1985). This interpretation is consistent with evidence that independent directors perform better when provided with superior information (Wu et al., 2019), which family ownership stakes may facilitate.

Theoretical Integration and Limitations: These patterns suggest that family board representation and family ownership concentration may serve complementary governance functions - board representation providing direct strategic control while ownership concentration providing indirect influence through governance mechanism enhancement. However, several limitations should be noted. First, the mechanisms underlying these patterns are inferred rather than directly measured. Second, alternative explanations such as measurement differences or statistical properties cannot be ruled out. Third, the "dual channel" framework emerges from the data rather than testing pre-existing theory, requiring validation in future research.

Empirical Support Across Models: The proposed framework receives consistent empirical support across different analytical approaches, with individual governance analysis (Table 7.2) and comprehensive governance analysis (Table 7.1) showing similar patterns. Combined family influence analysis demonstrates selective significance in specific domains, supporting complementarity rather than substitution. While these patterns are robust within this study, replication across different contexts and methodologies would strengthen confidence in the dual-channel interpretation.

7.5.3.2 Specialist versus Generalist Family Influence

Unlike previous literature that has traditionally emphasized ownership concentration as the primary mechanism of family influence (Villalonga, Amit, Trujillo and Guzman, 2015), with board representation receiving less theoretical attention within governance frameworks, the empirical evidence reveals they serve fundamentally different governance functions with distinct effectiveness patterns in corporate tax avoidance contexts. This study reveals that family ownership dominates comprehensive governance moderation affecting tax strategies (8.3x stronger effects) while family board representation shows slight dominance in individual board characteristics moderation influencing tax outcomes (1.25x stronger), indicating complementary rather than substitutional relationships in tax governance.

The evidence shows family board representation operates with concentrated intensity in tax-related governance, achieving significance exclusively for board independence moderation ($FAMB \times BIND = 0.0005796^{***}$) affecting how independence influences tax avoidance decisions, while other board characteristic interactions remain non-significant. In contrast, family ownership demonstrates diversified effectiveness across multiple board dimensions influencing tax strategies - independence ($FAMO \times BIND = 0.0004629^{***}$), size ($FAMO \times LBSIZE = -0.0110777^{**}$), and financial expertise ($FAMO \times FEXB = -0.0002438^{*}$) - indicating broader but individually moderate effects on how these governance mechanisms affect corporate tax planning.

This empirical pattern challenges the ownership-dominated theoretical frameworks that have characterized family business research (Villalonga & Amit, 2020), revealing that family influence mechanisms function as specialist versus generalist approaches in tax governance rather than substitute strategies. While comprehensive governance reviews have focused primarily on ownership effects and agency problems stemming from ownership structures (Villalonga et al., 2015), these findings demonstrate that board representation operates through distinct mechanisms with concentrated effectiveness. Family firms can leverage these distinct effectiveness characteristics

by deploying board representation for focused tax-related governance interventions and ownership concentration for broad-based tax strategy enhancement across multiple governance mechanisms, effectively changing the strategic question from "which mechanism to choose for tax optimization" to "how to combine mechanisms effectively for comprehensive tax governance.

7.5.3.3 Combined Family Influence: Limited Evidence for Interaction Effects

The analysis of combined family influence (FAMO_FAMB interactions) reveals mixed evidence regarding the joint effects of family ownership and board representation. While most interaction terms remain non-significant, two specific domains show statistical significance: board independence moderation (FAMO_FAMB×BIND = 0.000025***) and director compensation moderation (FAMO_FAMB×DRTP = 0.0018388**).

However, these combined effects are substantially smaller in magnitude than individual family influence mechanisms, suggesting that the primary effects operate through the separate channels identified in previous sections rather than through joint interactions. The board independence interaction, although statistically significant, represents only a small fraction of the individual ownership (FAMO×BIND = 0.007427***) or board representation (FAMB×BIND = 0.0008935***) effects.

This pattern is more consistent with parallel rather than joint family influence mechanisms. The limited significant interactions may reflect statistical outcome rather than actual joint governance effect, particularly given the small effect sizes. These findings support the dual-channel framework presented earlier, where family ownership and board representation operate through distinct rather than interactive pathways in tax governance contexts.

7.5.4 Integration Across Empirical Chapters

The Chapter 7 findings complement and extend the insights from previous empirical chapters, revealing a consistent pattern of family influence mechanisms that helps resolve a key theoretical puzzle. Chapter 5 established that governance mechanisms operate differently in family versus non-family firm contexts, with board independence showing a paradoxical positive effect on tax avoidance, contrary to traditional agency theory predictions that independent directors constrain aggressive tax strategies.

This board independence paradox finds support in recent literature. Armstrong et al. (2015) demonstrate "a positive relation between the financial sophistication and independence of boards and tax avoidance in the upper tail of the tax avoidance distribution", while comprehensive reviews suggest that "board independence, and high-quality audits have the potential to induce more effective but less risky tax avoidance, thereby making firms more profitable and also limiting risk exposure". Additionally, research indicates "there is an incentive for independent directors to enhance tax avoidance strategies, since they aim to satisfy the shareholder demands".

Chapter 6 revealed that family board representation dominates direct tax strategy effects ($FAMB = 0.0207^{***}$) while family ownership shows minimal direct impact ($FAMO = -0.0003$). Chapter 7 demonstrates that this pattern reverses for governance moderation, with family ownership showing substantially stronger effects ($FAMO \times BIND = 0.007427^{***}$ vs $FAMB \times BIND = 0.0008935^{***}$). The consistent positive moderation of board independence across both family mechanisms suggests that rather than constraining tax avoidance, independent directors in family firms may enhance the effectiveness of tax strategies.

This pattern aligns with evidence that family firms possess superior internal information (Anderson & Reeb, 2003) and that independent directors are more effective when provided with firm-specific knowledge (Wu et al., 2019). The positive moderation effects observed suggest that family influence enables independent

directors to make more informed tax strategy decisions, transforming board independence from a constraint into an enhancement mechanism in tax governance contexts.

These findings suggest that family influence operates through distinct channels - direct strategic control via board representation and governance enhancement via ownership concentration. While traditional agency theory emphasizes independence as a constraint on managerial behaviour, family firm contexts may enable independence to function as a strategic resource for optimizing rather than minimizing tax strategies.

7.6 Research Implications and Limitations

This study contributes to family business literature by revealing distinct patterns of family influence that address a gap in existing theoretical framework which have primarily focused on ownership effects while giving limited attention to board representation mechanism in corporate tax avoidance contexts. The findings suggest that family board representation and family ownership concentration may operate through complementary rather than competing channels, with board representation providing concentrated effects on tax-related governance mechanisms while ownership demonstrates broader moderation capacity across multiple tax strategy dimensions.

Theoretical Implications

The dual-channel pattern observed extends beyond traditional agency theory approaches that emphasize ownership effects in isolation, particularly in tax governance contexts. The consistent positive moderation of board independence by both family mechanisms offers a potential resolution to the board independence paradox in tax avoidance settings, suggesting that family influence may enhance rather than constrain independent director effectiveness in tax strategy decisions. This finding aligns with evidence that family firms possess superior internal information (Anderson & Reeb, 2003) and that independent directors perform

better when provided with firm-specific knowledge (Wu et al., 2019), particularly relevant for complex tax planning decisions requiring deep business understanding.

This study acknowledges several limitations that provide context for interpreting findings and suggest directions for future research enhancement.

Sample Size: The analysis utilizes 40 UK family firms observed over the period 2007-2019, providing 520 observations for the family firm subsample. While this sample size enables detailed analysis of within-family governance variation in tax contexts and supports the complex interaction models tested, it may limit the generalizability of findings to broader family firm populations engaging in different tax strategies. The focus on publicly listed UK family firms excludes privately held family enterprises, which may exhibit different tax avoidance patterns and governance-tax relationships due to reduced regulatory oversight and different tax optimization incentives.

Periodic and Institutional Context: The study period (2007-2019) encompasses significant changes in UK and international tax policy, including enhanced corporate tax transparency requirements and evolving anti-avoidance legislation. The findings may reflect specific tax institutional conditions during this period, including increased scrutiny of corporate tax practices and evolving family business tax regulations. The generalizability of results to other tax jurisdictions, particularly those with different tax codes, enforcement mechanisms, or family business tax treatments, requires careful consideration. Studies from other institutional settings and jurisdictions examining whether tax institutional contexts moderate the dual-channel relationships observed here would provide valuable insights into these tax governance findings.

Measurement and Operationalization: The operationalization of family influence through ownership concentration (FAMO) and board representation (FAMB) measures, while consistent with established literature, may not capture the full complexity of family involvement in tax governance. Alternative dimensions such as

family tax expertise, generational tax philosophy differences, or informal family tax decision-making mechanisms are not directly measured.

The tax avoidance measure (LBOTD), while widely used in taxation literature with similar studies such as Wang, Richardson, and Cao (2024); Peng and Lin (2024); Jiang, Huu, and Jiang (2024); and Tan, Ling, Yang, and Geng (2023) adopting book-tax differences as a proxy for measuring firms' tax avoidance, represents one dimension of tax strategy. However, this measure may not capture all forms of tax optimization strategies that family firms employ, including cash effective tax rate management, international tax planning, or timing-based strategies that do not manifest as book-tax disparities (Blaylock, Shevlin, and Wilson, 2012; Comprix, Graham, and Moore, 2010; Desai and Dharmapala, 2009).

Methodological Scope: The comprehensive governance approach, while providing valuable insights into system-wide effects on tax strategies, necessitates focusing on the most theoretically significant individual mechanism analysis (board characteristics) due to the analytical complexity of additional models. Individual analysis of management compensation and regulatory mechanisms moderation in tax contexts represents a limitation that could provide additional insights beyond those presented. Additionally, the examination of these dual-channel patterns across different tax enforcement environments and tax strategy types would test whether the specialist versus generalist distinction observed here applies across varied tax contexts

Endogeneity and Causality: While System GMM methodology addresses many endogeneity concerns through instrumental variable techniques and dynamic specification (Arellano & Bond, 1991; Blundell & Bond, 1998), the possibility of omitted variable bias or reverse causality in tax governance relationships cannot be completely eliminated. Tax avoidance decisions may simultaneously influence family governance choices, creating potential reverse causality that complicates interpretation, a concern highlighted in broader governance research (Wintoki,

Linck, & Netter, 2012; Roberts & Whited, 2013). The theoretical mechanisms underlying the observed tax-related moderation patterns are inferred rather than directly measured, requiring cautious interpretation of the dual-channel framework in tax contexts. While adopting fixed effects for robustness analysis provides additional confidence, it cannot fully resolve all potential endogeneity issues inherent in governance-tax performance relationships (Roberts & Whited, 2013).

7.7 Future Research Directions

Cross-Institutional and Tax Jurisdictional Studies: The dual-channel family influence theory and governance moderation patterns identified in the UK tax context warrant testing across different institutional and tax environments. Country variations in tax systems, enforcement mechanisms, and family business traditions may significantly influence how family governance mechanisms moderate tax avoidance strategies. Comparative studies examining family governance moderation in European civil law countries, Asian relationship-based economies, or emerging markets with lower tax enforcement tendencies could reveal how institutional and tax policy factors moderate family influence effectiveness. Such research would build on comparative governance literature (Claessens & Yurtoglu, 2013; La Porta et al., 1999) and international tax research (Dharmapala, 2014) to identify universal versus context-specific moderation effects. The institutional complementarity literature suggests that governance mechanisms operate differently across institutional contexts (Jackson and Deeg, 2008), indicating that family influence moderation effects may vary substantially across jurisdictions.

Tax Strategy Type Analysis: Future studies should examine whether the dual-channel pattern generalizes across different tax strategy and varying tax enforcement environments. The heterogeneity in corporate tax strategies, ranging from conservative compliance approaches to aggressive tax planning (Wilde & Wilson, 2018; Hanlon & Heitzman, 2010), may interact differently with family governance mechanisms. Complex international tax strategies may require different family governance configurations than domestic tax planning (Brune, Thomsen, and

Watrin, 2019). Such research would establish the broader applicability of these tax governance findings across the different spectrum of corporate tax behaviours.

Alternative Family Influence Measures in Tax Contexts: Future research could explore alternative operationalizations of family involvement in tax governance beyond ownership concentration and board representation. Research on family business heterogeneity indicates that founder-led firms may pursue different tax strategies compared to second or third-generation family firms (Villalonga & Amit, 2006; Bennedsen et al., 2007). Family tax expertise levels, whether through professional qualifications or accumulated experience, could moderate the effectiveness of tax governance mechanisms differently than general business expertise (Armstrong et al., 2015). Family governance structures such as family councils, family constitutions, or family offices may create formal or informal tax oversight mechanisms that influence corporate tax decisions (Rodríguez-García and Menéndez-Requejo, 2023). Understanding these unique dimensions of family involvement could provide more precise insights into when and how family influence creates tax-related moderation effects.

Performance Outcome Extension: Future research should examine whether family governance moderation patterns extend beyond tax contexts to other performance outcomes such as innovation investment, stakeholder engagement, and long-term value creation. Recent evidence demonstrates similar moderation effects in innovation (Delgado-García, Blanco-Mazagatos, and Romero-Merino, 2022; Gong & Liu, 2025) and stakeholder engagement (Pöll, Bertschi-Michel, Hack, Ahlers and Wright, 2024), suggesting the dual-channel framework may have broader applicability across different strategic contexts.

These research directions would potentially establish the theoretical and practical implications of the dual-channel framework, contributing to both family business and governance studies.

7.8 Conclusion

This study provides comprehensive empirical analysis of how family influence dimensions moderate the effectiveness of corporate governance mechanisms on tax avoidance behaviour in UK family firms. The analysis reveals distinct moderation patterns where family ownership concentration and family board representation operate through complementary but different mechanisms.

Empirical Contributions: The comprehensive governance analysis demonstrates that family ownership concentration emerges as the dominant moderator when all governance mechanisms are analysed simultaneously, showing significant moderation effects across board characteristics ($FAMO \times BIND = 0.007427^{***}$), management compensation ($FAMO \times DRTP = 0.0370682^{**}$), and regulatory mechanisms ($FAMO \times AUCH = 0.0146313^{**}$). In contrast, family board representation moderation operates through more selective mechanisms, maintaining significance primarily for board independence moderation ($FAMB \times BIND = 0.0008935^{***}$) in comprehensive governance contexts. Combined family influence demonstrates selective effects rather than broad-based interaction patterns, supporting complementarity rather than substitution relationships between family governance mechanisms.

Theoretical Contribution: The findings contribute to family business literature by reconciling the different patterns observed between Chapter 6's demonstration of family board representation dominance in direct effects and Chapter 7's evidence of family ownership concentration dominance in moderation effects. This dual-channel family influence framework suggests that family governance operates through multiple pathways that require integrated rather than single-mechanism approaches.

Methodological Insights: The comparison between comprehensive and individual governance analysis demonstrates the importance of considering mechanism interactions in governance research, showing that different family influence dimensions emerge as dominant moderators depending on analytical scope. The

robustness analysis confirms key findings across System GMM and Fixed Effects estimations, strengthening confidence in the results.

These empirical findings establish distinct patterns of family influence that extend beyond traditional single-mechanism approaches, also providing evidence for the complexity of family governance systems in corporate tax strategy contexts.

8. Conclusion and Future Research

8.1 Summary of Findings

This thesis examined the complex relationships between corporate governance, family influence, and tax avoidance in UK family firms through three empirical studies spanning 2007-2019. Using System GMM methodology and a comprehensive dataset of family and non-family firms, the research provides robust empirical evidence for how family characteristics systematically alter governance effectiveness in tax contexts.

The empirical investigation progressed through three interconnected analyses. Chapter 5 demonstrated that governance mechanisms operate differently between family and non-family firms, revealing that board independence increases rather than decreases tax avoidance in family contexts. Chapter 6 established that family board representation dominates direct effects on tax avoidance outcomes, while family ownership concentration shows no significant direct impact. Chapter 7 revealed that family ownership concentration dominates moderation effects across multiple governance domains, creating systematic enhancement of governance mechanism effectiveness.

These findings converge to support a dual-channel theoretical framework where family ownership and board representation serve distinct but complementary functions in tax governance contexts. Family board representation provides direct strategic control over tax decisions, while family ownership concentration enhances the effectiveness of formal governance mechanisms in achieving tax avoidance outcomes.

8.2 Theoretical Contributions

This research advances family business and corporate governance theory through three main contributions that address fundamental gaps in existing literature. The establishment of the dual-channel family influence framework represents the primary theoretical contribution. Previous research has treated family influence as a

single construct, leading to contradictory findings about family firm governance effectiveness. This thesis demonstrates that family ownership and board representation operate through distinct pathways with different characteristics and effectiveness patterns. Family board representation provides immediate access to strategic decision-making processes, dominating direct effects on tax avoidance outcomes. Family ownership concentration creates conditions where formal governance mechanisms operate more effectively, dominating moderation effects across multiple governance domains. This framework resolves contradictory findings in family business literature by showing that family influence dimensions serve complementary rather than competing functions.

The resolution of the board independence paradox constitutes the second major theoretical contribution. Traditional agency theory suggests that board independence should constrain managerial behaviour, but family firm contexts appear to enable independence to function as a strategic resource rather than a constraint. The research demonstrates that family influence enhances independent director effectiveness through superior information provision and strategic coordination, transforming board independence from a monitoring mechanism into a strategic planning resource. This finding fundamentally alters understanding of how governance mechanisms operate in family contexts.

The demonstration of context-dependent governance effectiveness represents the third theoretical contribution. The research shows that governance effectiveness depends fundamentally on family influence context, challenging universal governance approaches. Traditional governance mechanisms work differently in family versus non-family contexts, with family influence creating systematic moderation effects across governance domains. This finding suggests that governance theory must account for family influence as a systematic moderator rather than treating it as a simple control variable.

8.3 Practical Implications

The research findings have significant implications for three key stakeholder groups, providing evidence-based guidance for family businesses, policy development, and research methodology. First, family firm managers can optimise governance design by recognizing the distinct functions of different family influence mechanisms. The research demonstrates that board representation should be utilised for direct strategic control over tax planning, while ownership concentration should be maintained for broad governance enhancement. The findings reveal that independent directors become strategic partners rather than constraints when family influence is present, enabling more effective tax avoidance tendencies. Family firms should avoid attempting to maximize both ownership and board representation simultaneously, as the research shows these mechanisms operate through parallel rather than synergistic channels.

Policy makers and regulators should reconsider governance approaches that assume universal effectiveness across all firm types. The research demonstrates that current governance codes may not adequately recognize the complexity of family influence, suggesting need for family-specific governance guidelines. Family board composition represents a significant factor in tax avoidance strategy, indicating that regulatory focus should expand beyond ownership concentration to include board representation. The finding that family influence enhances rather than undermines board independence effectiveness suggests that current regulatory assumptions about family firm governance may require revision.

Researchers should adopt more sophisticated analytical approaches that recognise family influence complexity rather than treating family firms as homogeneous entities. The research demonstrates that family influence requires analysis through separate channels rather than combined approaches, with comprehensive governance analysis revealing different patterns than individual mechanism studies. System GMM methodology proves essential for addressing endogeneity concerns in family governance research. Future research should move beyond traditional agency

theory assumptions to incorporate family influence as a systematic moderator of governance effectiveness.

8.4 Research Limitations

Several limitations provide context for interpreting the findings and suggest directions for future research enhancement.

The geographic and institutional specificity of the research may limit generalizability to other regulatory environments. The UK institutional context with its "comply or explain" governance framework represents a specific regulatory approach that may not translate to other jurisdictions with different governance traditions or tax systems. The focus on publicly listed firms excludes private family businesses, which represent a significant portion of the family business population and may demonstrate different governance patterns due to varying disclosure requirements and stakeholder pressures.

Measurement and methodological constraints affect the scope and interpretation of findings. This study uses econometric methods that require careful interpretation when examining multiple governance variables simultaneously. The comprehensive models that include all governance mechanisms together create technical challenges because they require many statistical instruments relative to the sample size. While our diagnostic tests suggest the results are reliable, future studies could benefit from larger samples or more restrictive modelling approaches to provide additional confirmation. This concern is addressed by using simpler fixed effects models for individual governance categories, which provide more conservative estimates while still controlling for important factors.

The research design necessarily involves trade-offs between examining individual governance mechanisms versus understanding how they work together as a system. Our approach uses different statistical methods for different types of analysis - simpler methods for individual governance effects and more complex methods for comprehensive governance interactions. This reflects the practical challenge of

studying governance comprehensively while maintaining statistical reliability. The findings should be interpreted as providing insights into governance patterns rather than definitive causal relationships, with future research using larger datasets able to provide additional confirmation of these governance dynamics.

The family influence thresholds used in this research may not capture meaningful family control in all jurisdictions, with alternative thresholds potentially yielding different moderation patterns. The book-tax differences proxy for tax avoidance has inherent limitations and cannot distinguish between legal tax planning and aggressive avoidance strategies. While System GMM addresses many endogeneity concerns, the potential for reverse causality and omitted variable bias cannot be eliminated, particularly in complex interaction models.

The temporal scope of the analysis encompasses specific regulatory changes that may affect the stability of relationships over time. The 2007-2019 period includes the implementation of significant tax reforms, which may influence the applicability of findings to current governance and tax planning environments. The static analysis approach may miss dynamic relationships between governance mechanisms and family influence that evolve as firms and regulatory environments change.

8.5 Future Research Directions

The dual-channel framework and empirical findings establish foundation for several promising research avenues that could advance understanding of family firm governance.

Geographic and institutional extensions represent important opportunities for validating and extending the theoretical framework. Cross-country comparative studies could test the dual-channel framework across different institutional contexts, examining how legal systems, governance traditions, and tax environments affect family influence patterns. Research in developing economies could investigate family influence in contexts with weaker formal institutions, potentially revealing different governance substitution effects.

Methodological and measurement advances could enhance understanding of family influence mechanisms and effectiveness patterns. Dynamic relationship analysis could examine how family influence moderation evolves over time and how governance systems adapt to regulatory changes. Development of more sophisticated family control measurement approaches could capture the complexity of family involvement dimensions beyond simple ownership and board representation measures.

Theoretical development opportunities exist for integrating the dual-channel framework with other theoretical perspectives and extending its application to different outcome domains. The framework could be combined with socioemotional wealth theory and stewardship theory to provide more comprehensive understanding of family firm behaviour. Application to other strategic outcomes such as innovation, internationalization, and environmental performance could establish broader theoretical relevance.

8.6 Final Conclusions

This thesis establishes that family influence operates through dual channels with distinct characteristics and effectiveness patterns, fundamentally advancing understanding of family firm governance. The research demonstrates that family ownership and board representation serve complementary rather than competing functions, with ownership concentration providing broad governance enhancement while board representation offers targeted strategic control.

The theoretical contributions move beyond traditional agency theory assumptions to recognize family influence as a systematic moderator of governance effectiveness. The resolution of the board independence paradox shows that family contexts enable independence to function as a strategic resource rather than constraint, fundamentally altering how governance mechanisms operate. The demonstration of context-dependent governance effectiveness challenges universal governance approaches and establishes need for family-specific theoretical frameworks.

The practical implications provide actionable insights for governance design and tax strategy optimization while highlighting the need for policy approaches that recognize family influence complexity. The research offers evidence-based guidance for family firm managers seeking to optimize governance structures while providing policymakers with insights into the effectiveness of current regulatory approaches.

The methodological rigor demonstrated through System GMM estimation and comprehensive diagnostic testing provides confidence in the robustness of these contributions while acknowledging inherent limitations of empirical investigation. The research establishes foundation for future family business scholarship while offering practical guidance for governance practice and policy development.

This investigation advances family business theory by demonstrating that effective analysis requires recognition of family influence complexity rather than treating family firms as homogeneous entities. The dual-channel framework provides robust theoretical foundation for future research while addressing practical challenges facing family firms, regulators, and other stakeholders. The research opens new avenues for scholarship while contributing evidence-based insights to the ongoing development of family business theory and practice.

9. Reference

- Abbott, L.J., Parker, S. and Peters, G.F. (2004) 'Audit committee characteristics and restatements', *Auditing: A Journal of Practice & Theory*, 23(1), pp. 69–87. doi:10.2308/aud.2004.23.1.69.
- Abdelfattah, T. and Aboud, A. (2020) 'Tax avoidance, corporate governance, and corporate social responsibility: The case of the Egyptian capital market', *Journal of International Accounting, Auditing and Taxation*, Article 100304. Available at: <https://doi.org/10.1016/j.intaccaudtax.2020.100304>
- Abdeljawad, I., Al-Selkhi, J. and Abu-Ras, W. (2023) 'Audit committee and tax avoidance: An empirical study on Palestinian corporations', in *Digitalisation: Opportunities and Challenges for Business*. Lecture Notes in Networks and Systems, vol. 495, pp. 265–275. Cham: Springer International Publishing. doi: 10.1007/978-3-031-26956-1_26.
- Abdul Wahab, E.A., Ariff, A.M., Marzuki, M.M. and Mohd Sanusi, Z. (2017) 'Political connections, corporate governance, and tax aggressiveness in Malaysia', *Asian Review of Accounting*, 25(3), pp. 424–451. doi: 10.1108/ARA-05-2016-0053.
- Abdul Wahab, N.S. and Holland, K. (2012) 'Tax planning, corporate governance and equity value', *The British Accounting Review*, 44(2), pp. 111–124. doi: 10.1016/j.bar.2012.03.005.
- Adams, R. and Ferreira, D. (2009) 'Women in the boardroom and their impact on governance and performance', *Journal of Financial Economics*, 94(2), pp. 291–309.
- Adams, R.B. and Mehran, H. (2012) 'Bank board structure and performance: Evidence for large bank holding companies', *Journal of Financial Intermediation*, 21(2), pp. 243–267. doi: 10.1016/j.jfi.2011.09.002.

Aguilera, R.V. and Crespi-Cladera, R. (2016) 'Global corporate governance: On the relevance of firms' ownership structure', *Journal of World Business*, 51(1), pp. 50–57.

Aguilera, R.V., Filatotchev, I., Gospel, H. and Jackson, G. (2008) 'An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities', *Organization Science*, 19(3), pp. 475–492. doi: 10.1287/orsc.1070.0322.

Aiken, L.S. and West, S.G. (1991) *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park, CA: Sage Publications.

Akerlof, G.A. (1970) 'The market for "lemons": Quality uncertainty and the market mechanism', *Quarterly Journal of Economics*, 84(3), pp. 488–500.

Al-Absy, M.S.M. and Merza, H.I. (2024) 'Impact of Remuneration Committee's Characteristics on Firm Performance'. In: Hamdan, A., Alareeni, B. and Khamis, R. (eds.) *Digital Technology and Changing Roles in Managerial and Financial Accounting: Theoretical Knowledge and Practical Application*. Cham: Springer

Al-Okaily, A. and Naueihed, S. (2019) 'Family firms and audit committee effectiveness: Evidence from Jordan', *Journal of Governance and Regulation*, 8(2), pp. 44–56. doi: 10.22495/jgrv8i2art4.

Althubaiti, A. (2016) 'Information bias in health research: Definition, pitfalls, and adjustment methods', *Journal of Multidisciplinary Healthcare*, 9, pp. 211–217. doi: 10.2147/JMDH.S104807.

Ammann, M., Oesch, D. and Schmid, M.M. (2011) 'Corporate governance and firm value: International evidence', *Journal of Empirical Finance*, 18(1), pp. 36–55.

Anderson, R.C. and Reeb, D.M. (2003) 'Founding-family ownership and firm performance: Evidence from the S&P 500', *Journal of Finance*, 58(3), pp. 1301–1328.

Anderson, R.C. and Reeb, D.M. (2004) 'Board composition: Balancing family influence in S&P 500 firms', *Administrative Science Quarterly*, 49(2), pp. 209–237.

Ararat, M. and Yurtoglu, B.B. (2021) 'Female directors, board committees, and firm performance: Time-series evidence from Turkey', *Emerging Markets Review*, 48, 100768. doi: 10.1016/j.ememar.2020.100768.

Arcot, S., Bruno, V. and Faure-Grimaud, A. (2010) 'Corporate governance in the UK: Is the comply or explain approach working?', *International Review of Law and Economics*, 30(2), pp. 193–201. doi: 10.1016/j.irle.2010.03.002.

Arellano, M. and Bond, S. (1991) 'Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations', *Review of Economic Studies*, 58(2), pp. 277–297.

Arellano, M. and Bover, O. (1995) 'Another look at the instrumental variable estimation of error-components models', *Journal of Econometrics*, 68(1), pp. 29–51.

Armstrong, C.S., Blouin, J.L. and Larcker, D.F. (2012) 'The incentives for tax planning', *Journal of Accounting and Economics*, 53(1–2), pp. 391–411. doi:10.1016/j.jacceco.2011.04.001.

Armstrong, C.S., Larcker, D.F., Ormazabal, G. and Taylor, D.J. (2015) 'The relation between equity incentives and misreporting: The role of corporate governance', *Journal of Accounting and Economics*, 60(1), pp. 35–55. doi:10.1016/j.jacceco.2015.02.002.

Astami, E.W., Hartadi, B., Rusmin, R. and Tower, G. (2024) 'Family control and governance entrenchment: How family dominance overrides formal governance

mechanisms', *Corporate Governance: An International Review*, 32(1), pp. 87–107. doi: 10.1111/corg.12579.

Azim, M.I. (2012) 'Corporate governance mechanisms and their impact on company performance: A structural equation model analysis', *Australian Journal of Management*, 37(3), pp. 481–505. doi: 10.1177/0312896212451032.

Badertscher, B.A., Katz, S.P. and Rego, S.O. (2013) 'The separation of ownership and control and corporate tax avoidance', *Journal of Accounting and Economics*, 56(2–3), pp. 228–250.

Baghdadi, G., Podolski, E.J. and Veeraraghavan, M. (2022) 'CEO risk-seeking and corporate tax avoidance: Evidence from pilot CEOs', *Journal of Corporate Finance*, 76, 102282. doi: 10.1016/j.jcorpfin.2022.102282.

Baixauli-Soler, J.S., Belda-Ruiz, M. and Sánchez-Marín, G. (2015) 'Executive directors' compensation and monitoring: The moderating role of gender diversity on boards of directors', *Journal of Business Research*, 68(9), pp. 1749–1757. doi: 10.1016/j.jbusres.2015.03.006.

Baltagi, B.H. (2013) *Econometric Analysis of Panel Data*. 5th edn. Chichester: John Wiley & Sons.

Bammens, Y., Voordeckers, W. and Van Gils, A. (2011) 'Boards of directors in family businesses: A literature review and research agenda', *International Journal of Management Reviews*, 13(2), pp. 134–152. doi: 10.1111/j.1468-2370.2010.00289.x

Barney, J. (1991) 'Firm resources and sustained competitive advantage', *Journal of Management*, 17(1), pp. 99–120.

Barontini, R. & Bozzi, S. (2018) 'Family firm heterogeneity and CEO compensation in Continental Europe', *Journal of Economics & Business*, 97, pp. 1–18. doi: 10.1016/j.jeconbus.2018.02.001.

Barrett, P. (2004) 'Expectations of the auditor's role in society', *Australian Accounting Review*, 14(3), pp. 77–83. doi:10.1111/j.1835-2561.2004.tb00203.x.

Basco, R. and Voordeckers, W. (2015) 'The relationship between the board of directors and firm performance in private family firms: A test of the demographic versus behavioural approach', *Journal of Management & Organisation*, 21(4), pp. 411–435.

Bauweraerts, J. and Colot, O. (2017) 'Performance of family firms in a context of economic crisis: Empirical evidence from Belgium', *Journal of Family Business Management*, 7(2), pp. 214–229. doi: 10.1108/JFBM-12-2016-0041.

Bauweraerts, J. and Vandernoot, J. (2019) 'An exploratory study on the influence of family CEOs on tax aggressiveness in private family firms: The moderating role of CEO gender and survival risk', *Economics Bulletin*, 39(1), pp. 636–648. Available at: <https://ideas.repec.org/a/ebl/ecbull/eb-18-00947.html> (Accessed: 21 October 2025).

Bear, S., Rahman, N. and Post, C. (2010) 'The impact of board diversity and gender composition on corporate social responsibility and firm reputation', *Journal of Business Ethics*, 97(2), pp. 207–221.

Bebchuk, L.A. and Fried, J.M. (2004) *Pay without Performance: The Unfulfilled Promise of Executive Compensation*. Cambridge, MA: Harvard University Press.

Bebchuk, L.A. and Weisbach, M.S. (2010) 'The state of corporate governance research', *The Review of Financial Studies*, 23(3), pp. 939–961. doi: 10.1093/rfs/hhp121.

Becker, C.L., DeFond, M.L., Jambalvo, J. and Subramanyam, K.R. (1998) 'The effect of audit quality on earnings management', *Contemporary Accounting Research*, 15(1), pp. 1–24. doi: 10.1111/j.1911-3846.1998.tb00547.x.

Bell, A., Fairbrother, M. and Jones, K. (2019) 'Fixed and random effects models: Making an informed choice', *Quality & Quantity*, 53(2), pp. 1051–1074.

Bennedsen, M., Nielsen, K.M., Pérez-González, F. and Wolfenzon, D. (2007) 'Inside the family firm: The role of families in succession decisions and performance', *Quarterly Journal of Economics*, 122(2), pp. 647–691. doi: 10.1162/qjec.122.2.647.

Bennouri, M., Chtioui, T., Nagati, H. & Nekhili, M. (2018) 'Female board directorship and firm performance: What really matters?', *Journal of Banking & Finance*, 88, pp. 267-291. doi:10.1016/j.jbankfin.2017.12.010.

Berrone, P., Cruz, C., Gomez-Mejia, L.R. and Larraza-Kintana, M. (2012) 'Socioemotional wealth and corporate responses to institutional pressures: Do family-controlled firms pollute less?', *Administrative Science Quarterly*, 57(1), pp. 82–113.

Bharat, S.T. and Rosenstein, S. (2005) 'Board composition, managerial ownership, and firm performance: An empirical analysis', *Financial Review*, 40(4), pp. 409–430. doi: 10.1111/j.1540-6288.2005.00116.x.

Binz, C., Hair, J.F., Pieper, T.M. and Baldauf, A. (2013) 'Exploring the effect of distinct family firm reputation on consumers' preferences', *Journal of Family Business Strategy*, 4(1), pp. 3–14. doi: 10.1016/j.jfbs.2012.12.004

Binz Astrachan, C., Astrachan, J.H., Kotlar, J. and Michiels, A. (2021) 'Addressing the theory-practice divide in family business research: The case of shareholder agreements', *Journal of Family Business Strategy*, 12(1), pp. 100395. doi: 10.1016/j.jfbs.2020.100395.

Blaylock, B.S., Shevlin, T.J. and Wilson, R.J. (2012) 'Tax avoidance, large positive temporary book–tax differences, and earnings persistence', *The Accounting Review*, 87(1), pp. 91-120. doi: 10.2308/accr-10158.

- Blundell, R. and Bond, S. (1998) 'Initial conditions and moment restrictions in dynamic panel data models', *Journal of Econometrics*, 87(1), pp. 115–143.
- Boone, A.L., Field, L.C., Karpoff, J.M. and Raheja, C.G. (2007) 'The determinants of corporate board size and composition: An empirical analysis', *Journal of Financial Economics*, 85(1), pp. 66–101. doi: 10.1016/j.jfineco.2006.05.004.
- Botero, I.C., Cruz, C., De Massis, A. and Nordqvist, M. (2015) 'Family business research in the European context', *European Journal of International Management*, 9(2), pp. 139–159. doi: 10.1504/EJIM.2015.067858.
- Boussaidi, A. and Hamed, M.S. (2015) 'The impact of governance mechanisms on tax aggressiveness: Empirical evidence from the Tunisian context', *Journal of Asian Business and Economic Studies*, 22(1), pp. 24–43.
- Boyd, B.K. (1990) 'Corporate linkages and organizational environment: A test of the resource dependence model', *Strategic Management Journal*, 11(6), pp. 419–430.
- Brahma, S., Nwafor, C. and Boateng, A. (2021) 'Board gender diversity and firm performance: The UK evidence', *International Journal of Finance and Economics*, 26(4), pp. 5704–5719. doi: 10.1002/ijfe.2089.
- Brune, A., Thomsen, M. and Watrin, C. (2019) 'Family firm heterogeneity and tax avoidance: The role of the founder', *Family Business Review*, 32(3), pp. 296–317. doi: 10.1177/0894486519831467.
- Bryman, A. and Bell, E. (2015) *Business Research Methods*. 4th edn. Oxford: Oxford University Press.
- Burkart, M., Panunzi, F. and Shleifer, A. (2003) 'Family firms', *Journal of Finance*, 58(5), pp. 2167–2202.

Byron, K. and Post, C. (2016) 'Women on boards of directors and corporate social performance: A meta-analysis', *Corporate Governance: An International Review*, 24(4), pp. 428–442.

Cabello, O.G., Gaio, L.E. and Watrin, C. (2019) 'Tax avoidance in management-owned firms: Evidence from Brazil', *International Journal of Managerial Finance*, 15(4), pp. 580-592. doi: 10.1108/IJMF-04-2018-0117.

Cabrera-Suárez, K., De Saá-Pérez, P. and García-Almeida, D. (2001) 'The succession process from a resource- and knowledge-based view of the family firm', *Family Business Review*, 14(1), pp. 37–47.

Cadbury, A. (1992) *Report of the Committee on the Financial Aspects of Corporate Governance*. London: Gee and Co.

Calabrò, A., Vecchiarini, M., Gast, J., Campopiano, G., De Massis, A. and Kraus, S. (2019) 'A motivational perspective on the association between socioemotional wealth and behaviours in family firms', *Journal of Business Research*, 102, pp. 581–592. doi: 10.1016/j.jbusres.2018.12.031

Calabrò, A., Campopiano, G. and Basco, R. (2013) 'The governance structure of family firms: An empirical investigation of the relationship between family ownership and corporate governance mechanisms', *Journal of Management and Governance*, 17(4), pp. 771–802. doi: 10.1007/s10997-011-9187-2.

Calabrò, A., Frank, H., Minichilli, A. and Suess-Reyes, J. (2021) 'Business families in times of crises: The backbone of family firm resilience and continuity', *Journal of Family Business Strategy*, 12(2), 100442. doi: 10.1016/j.jfbs.2021.100442.

Cameron, A.C. and Trivedi, P.K. (2005) *Microeconometrics: Methods and applications*. Cambridge: Cambridge University Press.

Campopiano, G. and De Massis, A. (2015) 'Corporate social responsibility reporting: A content analysis in family and non-family firms', *Journal of Business Ethics*, 129(3), pp. 511–534. doi: 10.1007/s10551-014-2174-z.

Campopiano, G., De Massis, A. and Chirico, F. (2014) 'Firm philanthropy in small- and medium-sized family firms: The effects of family involvement in ownership and management', *Family Business Review*, 27(3), pp. 244–258. doi: 10.1177/0894486514538450.

Cao, F., Li, S., Dai, M. and Li, J. (2023) 'Your heart is where your treasure is: Family chairman and tax avoidance in family-controlled firms', *Journal of Business Research*, 154, 113298. doi: 10.1016/j.jbusres.2022.09.003.

Carbone, E., Campopiano, G., Cirillo, A. and Mussolino, D. (2024) 'Why and how do family firms go public? A socioemotional wealth perspective of IPOs', *Family Business Review*. doi: 10.1177/08944865241273380.

Carney, M., Van Essen, M., Gedajlovic, E.R. and Heugens, P.P.M.A.R. (2015) 'What do we know about private family firms? A meta-analytical review', *Entrepreneurship Theory and Practice*, 39(3), pp. 513–544.

Carpenter, M.A., Geletkanycz, M.A. and Sanders, W.G. (2004) 'Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition', *Journal of Management*, 30(6), pp. 749–778.

Carter, D.A., Simkins, B.J. and Simpson, W.G. (2003) 'Corporate governance, board diversity, and firm value', *The Financial Review*, 38(1), pp. 33–53. doi: 10.1111/1540-6288.00034.

Casson, M. (1999) 'The economics of the family firm', *Scandinavian Economic History Review*, 47(1), pp. 10–23.

Cheffins, B.R. (2015) 'The stewardship code's Achilles' heel', *Modern Law Review*, 78(6), pp. 1004–1025.

Cheffins, B.R. and Reddy, K. (2022) 'Corporate governance in the UK: History and future directions', *Journal of Law and Society*, 49(S1), pp. S54–S78.

Chen, C., Lai, I. K. W. & Kuang, T. (2025) 'A Systematic Literature Review of Female Leadership in Business (2014–2023)', *SAGE Open*, 15(2). doi:10.1177/21582440251340140.

Chen, S., Chen, X., Cheng, Q. and Shevlin, T. (2010) 'Are family firms more tax aggressive than non-family firms?', *Journal of Financial Economics*, 95(1), pp. 41–61.

Cheng, C. and Phillips, M. (2014) 'Secondary data analysis: Using existing data to answer new research questions in health and social science', *Research Methods Forum*, 2(1), pp. 12–18.

Chirico, F. and Salvato, C. (2008) 'Knowledge integration and dynamic organizational adaptation in family firms', *Family Business Review*, 21(2), pp. 169–181. doi: [10.1111/j.1741-6248.2008.00117.x](https://doi.org/10.1111/j.1741-6248.2008.00117.x)

Chow, G.C. (1960) 'Tests of equality between sets of coefficients in two linear regressions', *Econometrica*, 28(3), pp. 591–605.

Chrisman, J.J., Chua, J.H. and Litz, R.A. (2004) 'Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence', *Entrepreneurship Theory and Practice*, 28(4), pp. 335–354.

Chrisman, J.J., Chua, J.H., Pearson, A.W. and Barnett, T. (2012) 'Family involvement, family influence, and family-centered non-economic goals in small firms', *Entrepreneurship Theory and Practice*, 36(2), pp. 267–293. doi: 10.1111/j.1540-6520.2010.00407.x.

- Chrisman, J.J., Chua, J.H. and Sharma, P. (2005) 'Trends and directions in the development of a strategic management theory of the family firm', *Entrepreneurship Theory and Practice*, 29(5), pp. 555–575.
- Chrisman, J.J., Chua, J.H., Le Breton-Miller, I., Miller, D. and Steier, L.P. (2018) 'Governance mechanisms and family firms', *Entrepreneurship Theory and Practice*, 42(2), pp. 171–186. doi: 10.1177/1042258717748650.
- Chrisman, J.J. and Patel, P.C. (2012) 'Variations in R&D investments of family and non-family firms: Behavioral agency and myopic loss aversion perspectives', *Academy of Management Journal*, 55(4), pp. 976–997. doi:10.5465/amj.2011.0211.
- Christensen, J. and Murphy, R. (2004) 'The social irresponsibility of corporate tax avoidance: Taking CSR to the bottom line', *Development*, 47(3), pp. 37–44. doi: 10.1057/palgrave.development.1100066.
- Chua, J.H., Chrisman, J.J. and Steier, L.P. (2003) 'Extending the theoretical horizons of family business research', *Entrepreneurship Theory and Practice*, 27(4), pp. 331–338. doi: 10.1111/1540-8520.00012.
- Church, B., Jenkins, G., McCracken, S., Roush, P. and Stanley, J. (2015) 'Auditor independence in fact: Research, regulatory, and practice implications drawn from experimental and archival research', *Accounting Horizons*, 29(2), pp. 217–238. doi: 10.2308/acch-50966.
- Chyz, J.A., Leung, W.S.C., Li, O.Z. and Rui, O.M. (2013) 'Labour unions and tax aggressiveness', *Journal of Financial Economics*, 108(3), pp. 675–698.
- Claessens, S., Djankov, S., Fan, J.P.H. and Lang, L.H.P. (2002) 'Disentangling the incentive and entrenchment effects of large shareholdings', *Journal of Finance*, 57(6), pp. 2741–2771.

Claessens, S. & Yurtoglu, B.B. (2013) 'Corporate governance in emerging markets: A survey', *Emerging Markets Review*, 15, pp. 1-33. doi:10.1016/j.ememar.2012.03.002.

Clark, T.S. and Linzer, D.A. (2015) 'Should I use fixed or random effects?', *Political Science Research and Methods*, 3(2), pp. 399–408.

Cohen, J., Cohen, P., West, S.G. and Aiken, L.S. (2003) *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. 3rd edn. Mahwah, NJ: Lawrence Erlbaum Associates.

Cohen, J., Krishnamoorthy, G. and Wright, A. (2004) 'The corporate governance mosaic and financial reporting quality', *Journal of Accounting Literature*, 23, pp. 87–152.

Coles, J.L., Daniel, N.D. and Naveen, L. (2008) 'Boards: Does one size fit all?', *Journal of Financial Economics*, 87(2), pp. 329–356. doi: 10.1016/j.jfineco.2006.08.008.

Coles, J.L., Lemmon, M.L. and Meschke, F. (2011) 'Structural models and endogeneity in corporate finance: The link between managerial ownership and corporate performance', *Journal of Financial Economics*, 103(1), pp. 149–168. doi: 10.1016/j.jfineco.2011.04.002.

Colli, A. (2003) *The history of family business, 1850–2000*. Cambridge: Cambridge University Press.

Colquitt, J.A. and Zapata-Phelan, C.P. (2007) 'Trends in theory building and theory testing: A five-decade study of the Academy of Management Journal', *Academy of Management Journal*, 50(6), pp. 1281–1303. doi: 10.5465/amj.2007.28165855.

Competition and Markets Authority (CMA) (2019) *Statutory audit services market study: Final report*. London: Competition and Markets Authority.

Comprix, J., Graham, R.C. and Moore, J.A. (2011) 'Empirical evidence on the impact of book–tax differences on divergence of opinion among investors', *Journal of the American Taxation Association*, 33(1), pp. 51–78.

Conyon, M.J. and Peck, S.I. (1998) 'Board control, remuneration committees, and top management compensation', *Academy of Management Journal*, 41(2), pp. 146–157. doi: 10.2307/257099.

Core, J.E., Holthausen, R.W. and Larcker, D.F. (1999) 'Corporate governance, chief executive officer compensation, and firm performance', *Journal of Financial Economics*, 51(3), pp. 371–406. doi: 10.1016/S0304-405X(98)00058-0.

Cowton, C.J. (1998) 'The use of secondary data in business ethics research', *Journal of Business Ethics*, 17(4), pp. 423–434. doi: 10.1023/A:1017957604848.

Crocker, K.J. and Slemrod, J. (2005) 'Corporate tax evasion with agency costs', *Journal of Public Economics*, 89(9–10), pp. 1593–1610.

Crotty, M. (1998) *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage Publications.

Cruz, C., Gómez-Mejía, L.R. and Becerra, M. (2010) 'Perceptions of benevolence and the design of agency contracts: CEO–TMT relationships in family firms', *Academy of Management Journal*, 53(1), pp. 69–89. doi: 10.5465/amj.2010.48036975.

Cybinski, P., Windsor, C. & Sauser, D. (2013) 'Remuneration committee independence and CEO remuneration for firm financial performance'. *Australian Journal of Management*. (Classic empirical paper showing stronger pay–performance with independent RCs). Available at: <https://research.bond.edu.au> (accessed 21 Oct 2025).

Cycyota, C.S. and Harrison, D.A. (2006) 'What (not) to expect when surveying executives: A meta-analysis of top manager response rates and techniques over time', *Organizational Research Methods*, 9(2), pp. 133–160. doi: 10.1177/1094428105280770.

Dahya, J., Dimitrov, O. and McConnell, J.J. (2008) 'Dominant shareholders, corporate boards, and corporate value: A cross-country analysis', *Journal of Financial Economics*, 87(1), pp. 73–100. doi: 10.1016/j.jfineco.2006.10.005.

Dang, V.C. & Nguyen, Q.K. (2022) 'Audit committee characteristics and tax avoidance: Evidence from an emerging economy', *Cogent Economics & Finance*, 10(1), article 2023263. doi:10.1080/23322039.2021.2023263.

Daspit, J.J., Holt, D.T., Chrisman, J.J. and Long, R.G. (2016) 'Examining family firm succession from a social exchange perspective: A multiphase, multistakeholder review', *Family Business Review*, 29(1), pp. 44–64. doi: 10.1177/0894486515599688

Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997) 'Toward a stewardship theory of management', *Academy of Management Review*, 22(1), pp. 20–47. doi: 10.5465/amr.1997.9707180258.

De Jong, B.J. (2016) 'The distinction between public and private companies and its relevance for company law: Observations from the Netherlands and the United Kingdom', *European Business Law Review*, pp. 1-23. Available at: <https://ssrn.com/abstract=2507726> (Accessed: 20 October 2024).

De Massis, A., Frattini, F., Majocchi, A. and Piscitello, L. (2018) 'Family firms in the global economy: Toward a deeper understanding of internationalization determinants, processes, and outcomes', *Global Strategy Journal*, 8(1), pp. 3–21.

Deephouse, D.L. and Jaskiewicz, P. (2013) 'Do family firms have better reputations than non-family firms? An integration of socioemotional wealth and social identity theories', *Journal of Management Studies*, 50(3), pp. 337–360.

DeFond, M.L., Hann, R.N. and Hu, X. (2005) 'Does the market value financial expertise on audit committees of boards of directors?', *Journal of Accounting Research*, 43(2), pp. 153–193. doi: 10.1111/j.1475-679X.2005.00166.x.

DeFond, M.L. and Zhang, J. (2014) 'A review of archival auditing research', *Journal of Accounting and Economics*, 58(2–3), pp. 275–326. doi:10.1016/j.jacceco.2014.09.002.

Delgado-García, J.B., Blanco-Mazagatos, V. and Romero-Merino, M.E. (2022) 'Family CEO affect and R&D investments of family firms: The moderation effect of family ownership structure', *Long Range Planning*, 55(4), 102230. doi: 10.1016/j.lrp.2022.102230.

Demski, J.S. and Feltham, G.A. (1978) 'Economic incentives in budgetary control systems', *The Accounting Review*, 53(2), pp. 336–359. Available at: <https://www.jstor.org/stable/245898> (Accessed: 21 October 2025).

Desai, M.A. and Dharmapala, D. (2006) 'Ratio of stock to total management compensation; governance index by Gompers et al.; proportion of institutional investors', *Journal of Financial Economics*, 1993–2001.

Desai, M.A. and Dharmapala, D. (2009) 'Corporate tax avoidance and firm value', *Review of Economics and Statistics*, 91(3), pp. 537–546.

Deutsch, Y., Zaheer, A. and Nahum, N. (2011) 'Ownership and board structure in family firms: Lessons from Israeli high-tech SMEs', *Journal of Family Business Strategy*, 2(2), pp. 75–86. doi: 10.1016/j.jfbs.2011.03.002

- DeZoort, F.T., Hermanson, D.R., Archambeault, D.S. and Reed, S.A. (2002) 'Audit committee effectiveness: A synthesis of the empirical audit committee literature', *Journal of Accounting Literature*, 21, pp. 38–75.
- Dhaliwal, D.S., Naiker, V. and Navissi, F. (2016) 'Audit committee financial expertise, corporate governance and accruals quality: An empirical analysis', *Auditing: A Journal of Practice & Theory*, 35(4), pp. 1–22. doi:10.2308/ajpt-51300.
- Dharmapala, D. (2014) 'What Do We Know About Base Erosion and Profit Shifting? A Review of the Empirical Literature', *Fiscal Studies*, 35(4), pp. 421–448. doi: 10.1111/1475-5890.12037.
- Dibrell, C., Gamble, J., Clinton, E. and Sherlock, C. (2024) 'Family firm innovativeness: An investigation of family governance, commitment, and generation involvement', *Entrepreneurship and Regional Development*, 36. doi: 10.1080/08985626.2024.2338171.
- DiMaggio, P.J. and Powell, W.W. (1983) 'The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields', *American Sociological Review*, 48(2), pp. 147–160.
- Donaldson, L. (2001) *The contingency theory of organizations*. London: Sage Publications.
- Donohoe, M.P. and Knechel, W.R. (2014) 'Does corporate tax aggressiveness influence audit pricing?', *Contemporary Accounting Research*, 31(1), pp. 284–308. doi:10.1111/1911-3846.12034.
- Drazin, R. and Van de Ven, A.H. (1985) 'Alternative forms of fit in contingency theory', *Administrative Science Quarterly*, 30(4), pp. 514–539.
- Dyreng, S.D., Hanlon, M. and Maydew, E.L. (2008) 'Long-run corporate tax avoidance', *The Accounting Review*, 83(1), pp. 61–82.

Dyreng, S.D., Hanlon, M., Maydew, E.L. and Thornock, J.R. (2010) 'The effects of executives on corporate tax avoidance', *The Accounting Review*, 85(4), pp. 1163–1189. doi: 10.2308/accr.2010.85.4.1163.

Eagly, A.H. and Johannesen-Schmidt, M.C. (2001) 'The leadership styles of women and men', *Journal of Social Issues*, 57(4), pp. 781–797. doi:10.1111/0022-4537.00241.

Edmondson, A.C. and McManus, S.E. (2007) 'Methodological fit in management field research', *Academy of Management Review*, 32(4), pp. 1155–1179. doi: 10.5465/amr.2007.26586086.

Eisenhardt, K.M. (1989) 'Agency theory: An assessment and review', *Academy of Management Review*, 14(1), pp. 57–74. doi: 10.5465/amr.1989.4279003.

Elsayed, M., Elshandidy, T. and Ahmed, Y. (2022) 'Corporate failure in the UK: An examination of corporate governance reforms', *International Review of Financial Analysis*, 82, Article 102165. doi: 10.1016/j.irfa.2022.102165.

Faccio, M. and Lang, L.H.P. (2002) 'The ultimate ownership of Western European corporations', *Journal of Financial Economics*, 65(3), pp. 365–395. doi: 10.1016/S0304-405X(02)00146-0.

Fama, E.F. (1980) 'Agency problems and the theory of the firm', *Journal of Political Economy*, 88(2), pp. 288–307.

Fama, E.F. and Jensen, M.C. (1983) 'Separation of ownership and control', *Journal of Law and Economics*, 26(2), pp. 301–325.

Family Business Research Foundation (2025) *The State of the Nation: The UK Family Business Sector in 2023*. London: Family Business Research Foundation. ISBN 978-1-7392001-4-5. Available at: <https://zenoot.com/wp-content/uploads/Family-Business-Research-Foundation-Report-25.pdf> (Accessed: 20 October 2025).

Faulkender, M. and Smith, J.M. (2016) ‘Taxes and leverage at multinational corporations’, *Journal of Financial Economics*, 122(1), pp. 1–20. doi: 10.1016/j.jfineco.2016.06.006.

Fernandes, N., Ferreira, M.A., Matos, P. and Murphy, K.J. (2013) ‘Are US CEOs paid more? New international evidence’, *Review of Financial Studies*, 26(2), pp. 323–367. doi: 10.1093/rfs/hhs122.

Fernández-Aráoz, C., Iqbal, S., Ritter, J. and Sadowski, R. (2019) ‘6 traits of strong family businesses’, *Harvard Business Review*, 18 June. Available at: <https://hbr.org/2019/06/6-traits-of-strong-family-businesses> (Accessed: 20 October 2025).

Fiedler, F.E. (1967) *A theory of leadership effectiveness*. New York: McGraw-Hill.

Financial Reporting Council (2003) *The Combined Code on Corporate Governance*. London: Financial Reporting Council. Available at: <https://www.frc.org.uk> (Accessed: 15 August 2025).

Financial Reporting Council (2008) *The Combined Code on Corporate Governance*. London: Financial Reporting Council. Available at: <https://www.frc.org.uk> (Accessed: 15 August 2025).

Financial Reporting Council (2010) *The UK Corporate Governance Code 2010*. London: Financial Reporting Council. Available at: <https://www.frc.org.uk> (Accessed: 15 August 2025).

Financial Reporting Council (2016) *Guidance on Audit Committees*. London: Financial Reporting Council.

Financial Reporting Council (2018) *UK Corporate Governance Code 2018*. London: Financial Reporting Council.

Financial Reporting Council (2018b) *Audit culture thematic review*. London: Financial Reporting Council.

Financial Reporting Council (2024) *UK Corporate Governance Code 2024*. London: Financial Reporting Council. Available at: <https://www.frc.org.uk/library/standards-codes-policy/corporate-governance/uk-corporate-governance-code/>

Flannery, M.J. and Hankins, K.W. (2013) 'Estimating dynamic panel models in corporate finance', *Journal of Corporate Finance*, 19, pp. 1–19.

Forker, J.J. (1992) 'Corporate governance and disclosure quality', *Accounting and Business Research*, 22(86), pp. 111–124. doi:10.1080/00014788.1992.9729426.

Francis, J.R. (2004) 'What do we know about audit quality?', *The British Accounting Review*, 36(4), pp. 345–368. doi: 10.1016/j.bar.2004.09.003.

Francis, B., Hasan, I., Wu, Q. and Yan, M. (2014) 'Are female CFOs less tax aggressive? Evidence from tax aggressiveness', *Journal of the American Taxation Association*, 36(2), pp. 171–202. doi: 10.2308/atax-50819.

Frank, M.M., Lynch, L.J. and Rego, S.O. (2009) 'Tax reporting aggressiveness and its relation to aggressive financial reporting', *The Accounting Review*, 84(2), pp. 467–496.

Franks, J., Mayer, C. and Rossi, S. (2009) 'Ownership, evolution and regulation of the UK corporation', *Review of Financial Studies*, 22(10), pp. 4009–4056. doi: [10.1093/rfs/hhn108](https://doi.org/10.1093/rfs/hhn108).

Freeman, R.E. (1984) *Strategic management: A stakeholder approach*. Cambridge: Cambridge University Press.

Freedman, J. (2016) 'General anti-avoidance rules (GAARs): A key element of tax systems in the post-BEPS tax world? The UK GAAR', *SSRN Electronic*

Journal. Available at: <https://doi.org/10.2139/ssrn.2769554> (Accessed: 3 March 2024).

Freeman, R.E. (1984) *Strategic management: A stakeholder approach*. Cambridge: Cambridge University Press.

Frey, B.S. and Jegen, R. (2001) 'Motivation crowding theory: A survey of empirical evidence', *Journal of Economic Surveys*, 15(5), pp. 589–611. doi: 10.1111/1467-6419.00150.

Gaaya, S., Lakhal, N. and Lakhal, F. (2017) 'Does family ownership reduce corporate tax avoidance? The moderating effect of audit quality', *Managerial Auditing Journal*, 32(7), pp. 731–744.

Gaertner, F.B. (2014) 'CEO after-tax compensation incentives and corporate tax avoidance', *Contemporary Accounting Research*, 31(4), pp. 1077–1102. doi: 10.1111/1911-3846.12058.

García-Meca, E., López-Iturriaga, F.J. and Santana-Martín, D.J. (2022) 'Board gender diversity and dividend payout: The critical mass and the family ties effect', *International Review of Financial Analysis*, 79, 101973. doi: 10.1016/j.irfa.2021.101973.

García-Meca, E., Ramon-Llorens, M.C. and Martínez-Ferrero, J. (2021) 'Are narcissistic CEOs more tax aggressive? The moderating role of internal audit quality', *Journal of Business Research*, 129, pp. 223–235.

García-Ramos, R., Díaz-Díaz, B. and García-Olalla, M. (2017) 'Independent directors and board performance: The moderating effect of ownership concentration', *Review of Managerial Science*, 11(1), pp. 119–139. doi: 10.1007/s11846-015-0181-2.

- García-Ramos, R. and García-Olalla, M. (2011) 'Board characteristics and firm performance in public founder- and nonfounder-led family businesses', *Journal of Family Business Strategy*, 2(4), pp. 220–231. doi: 10.1016/j.jfbs.2011.09.001.
- Gedajlovic, E., Carney, M., Chrisman, J.J. and Kellermanns, F.W. (2012) 'The adolescence of family firm research: Taking stock and planning for the future', *Journal of Management*, 38(4), pp. 1010–1037. doi: 10.1177/0149206311429990.
- Gil, M., Uman, T., Hiebl, M.R.W. and Seifner, S. (2024) 'Auditing in family firms: Past trends and future research directions', *Journal of Small Business Management*, 62(6), pp. 3119–3163. doi: 10.1080/00472778.2023.2293908.
- Ginesti, G., Drago, C., Macchioni, R. and Sorrentino, M. (2024) 'Heterogeneity of family firms' internal governance quality: Evidence from Europe', *Journal of Family Business Strategy*, 15(1), 100583. doi: 10.1016/j.jfbs.2023.100583.
- Gómez-Mejía, L.R., Cruz, C., Berrone, P. and De Castro, J. (2011) 'The bind that ties: Socioemotional wealth preservation in family firms', *Academy of Management Annals*, 5(1), pp. 653–707. doi: 10.1080/19416520.2011.593320
- Gómez-Mejía, L.R., Núñez-Nickel, M. and Gutierrez, I. (2001) 'The role of family ties in agency contracts', *Academy of Management Journal*, 44(1), pp. 81–95. doi: 10.5465/3069338.
- Gómez-Mejía, L.R., Haynes, K.T., Núñez-Nickel, M., Jacobson, K.J.L. and Moyano-Fuentes, J. (2007) 'Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills', *Administrative Science Quarterly*, 52(1), pp. 106–137.
- Goergen, M. and Renneboog, L. (2001) 'Investment policy, internal financing and ownership concentration in the UK', *Journal of Corporate Finance*, 7(3), pp. 257–284. doi: 10.1016/S0929-1199(01)00022-3

- Gong, X. and Liu, S. (2025) 'Family firm ownership and corporate innovation performance', *Finance Research Letters*, 80, 107366. doi: 10.1016/j.frl.2025.107366.
- Graham, J.R. (2003) 'Taxes and corporate finance: A review', *The Review of Financial Studies*, 16(4), pp. 1075–1129. doi: 10.1093/rfs/hhg033.
- Graham, J.R., Hanlon, M., Shevlin, T. and Shroff, N. (2014) 'Incentives for tax planning and avoidance: Evidence from the field', *The Accounting Review*, 89(3), pp. 991–1023. doi: 10.2308/accr-50678.
- Green, C.P. and Homroy, S. (2018) 'Female directors, board committees and firm performance', *European Economic Review*, 102, pp. 19–38. doi: 10.1016/j.euroecorev.2017.12.003.
- Greenbury, R. (1995) *Directors' Remuneration: Report of a Study Group Chaired by Sir Richard Greenbury*. London: Gee Publishing.
- Greenwood, R., Oliver, C., Sahlin, K. and Suddaby, R. (2011) *The SAGE handbook of organizational institutionalism*. London: SAGE Publications.
- Gujarati, D.N. and Porter, D.C. (2009) *Basic Econometrics*, 5th edn. New York: McGraw-Hill/Irwin.
- Gul, F.A., Srinidhi, B. and Ng, A.C. (2011) 'Does board gender diversity improve the informativeness of stock prices?', *Journal of Accounting and Economics*, 51(3), pp. 314–338. doi: 10.1016/j.jacceco.2011.01.005.
- Gupta, S. and Newberry, K. (1997) 'Determinants of the variability in corporate effective tax rates: Evidence from longitudinal data', *Journal of Accounting and Public Policy*, 16(1), pp. 1–34.
- Habbershon, T.G. and Pistrui, J. (2002) 'Enterprising families domain: Family-influenced ownership groups in pursuit of transgenerational wealth', *Family Business Review*, 15(3), pp. 223–237. doi: 10.1111/j.1741-6248.2002.00223.x

Habbershon, T.G. and Williams, M.L. (1999) 'A resource-based framework for assessing the strategic advantages of family firms', *Family Business Review*, 12(1), pp. 1–25.

Hakimi, N., Zolkafli, S. and Khalid, N.H. (2023) 'The role of internal audit, internal control systems and corporate governance practices toward financial report quality', *MAHSA International Journal of Business and Social Sciences*, 3(2), pp. 24–36. e-ISSN 2811-4302. Available at: <https://www.researchgate.net/publication/376414306> (Accessed: 21 October 2024).

Halioui, K., Neifar, S. and Ben Abdelaziz, F. (2016) 'Corporate governance, CEO compensation and tax aggressiveness', *Review of Accounting and Finance*, 15(4), pp. 445–462. doi: 10.1108/RAF-01-2015-0018.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2019) *Multivariate Data Analysis*, 8th edn. Andover: Cengage Learning EMEA.

Hambrick, D.C. and Mason, P.A. (1984) 'Upper echelons: The organization as a reflection of its top managers', *Academy of Management Review*, 9(2), pp. 193–206.

Hampel, R. (1998) *Committee on Corporate Governance: Final Report (Hampel Report)*. London: Gee Publishing.

Hanlon, M. and Heitzman, S. (2010) 'A review of tax research', *Journal of Accounting and Economics*, 50(2–3), pp. 127–178.

Hanlon, M. and Slemrod, J. (2009) 'What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement', *Journal of Public Economics*, 93(1–2), pp. 126–141.

Hansen, C. and Block, J. (2021) 'Public family firms and capital structure: A meta-analysis', *Corporate Governance: An International Review*, 29(3), pp. 297–319. doi: 10.1111/corg.12354.

Harrison, J.S., Bosse, D.A. and Phillips, R.A. (2010) 'Managing for stakeholders, stakeholder utility functions, and competitive advantage', *Strategic Management Journal*, 31(1), pp. 58–74.

Hausman, J.A. (1978) 'Specification tests in econometrics', *Econometrica*, 46(6), pp. 1251–1271.

Haynes, K.T. and Hillman, A. (2010) 'The effect of board capital and CEO power on strategic change', *Strategic Management Journal*, 31(11), pp. 1145–1163.

Higgs, D. (2003) *Review of the Role and Effectiveness of Non-Executive Directors*. London: Department of Trade and Industry.

Hillman, A.J. and Dalziel, T. (2003) 'Boards of directors and firm performance: Integrating agency and resource dependence perspectives', *Academy of Management Review*, 28(3), pp. 383–396.

Hillman, A.J., Withers, M.C. and Collins, B.J. (2009) 'Resource dependence theory: A review', *Journal of Management*, 35(6), pp. 1404–1427.

HM Revenue & Customs (2022) 'Tax gap remains steady at 5.1%', GOV.UK, 23 June. Available at: <https://www.gov.uk/government/news/tax-gap-remains-steady-at-51> (Accessed: 18 August 2025).

HM Revenue & Customs (2017) *Tackling tax evasion: Government guidance for the corporate offences of failure to prevent the criminal facilitation of tax evasion*. GOV.UK. Available at: <https://www.gov.uk/government/consultations/tackling-tax-evasion-a-new-corporate-offence-of-failure-to-prevent-the-criminal-facilitation-of-tax-evasion> (Accessed: 15 August 2025).

HM Treasury (2016) *Finance Act 2016, Schedule 19: Large businesses: tax strategies and sanctions*. London: HMSO. Available at: <https://www.legislation.gov.uk/ukpga/2016/24/schedule/19> (Accessed: 15 August 2025).

HM Treasury (2013) *Finance Act 2013*. London: HMSO. Available at: <https://www.legislation.gov.uk/ukpga/2013/29/part/5/enacted> (Accessed: 15 August 2025).

Hogan, B. and Noga, T. (2015) 'Auditor-provided tax services and long-term tax avoidance', *Review of Accounting and Finance*, 14(3), pp. 295–323. doi:10.1108/RAF-06-2013-0063.

Hope, O.K., Ma, M. and Thomas, W.B. (2013) 'Tax avoidance and geographic earnings disclosure', *Journal of Accounting and Economics*, 56(2–3), pp. 170–189. doi: 10.1016/j.jacceco.2013.06.001.

Hoseini, M., Safari Gerayli, M. and Valiyan, H. (2019) 'Demographic characteristics of the board of directors' structure and tax avoidance', *International Journal of Social Economics*, 46(2), pp. 199–212. doi: 10.1108/IJSE-11-2017-0507.

Hsiao, C. (2014) *Analysis of panel data*. 3rd edn. Cambridge: Cambridge University Press.

Hsu, P.H., Moore, J.A. and Neubaum, D.O. (2018) 'Independent financial expert directors', *Journal of Business Finance & Accounting*, 45(9–10), pp. 1146–1181.

Huang, H. and Zhang, W. (2020) 'Financial expertise and corporate tax avoidance', *Asia-Pacific Journal of Accounting & Economics*, 27(3), pp. 312–326. doi: 10.1080/16081625.2019.1566008.

Huang, X., Ying, T. and Shen, T. (2018) 'Executive cash compensation and tax aggressiveness of Chinese firms', *Review of Quantitative Finance and Accounting*, 51(4), pp. 1151–1180.

ICAEW (2017) *Audit regulations and guidance on the EU Audit Regulation and Directive*. London: Institute of Chartered Accountants in England and Wales.

Institute of Family Business Research Foundation (2022) *The state of the nation: The UK family business sector 2021–22*. London: IFB Research Foundation. ISBN 978-1-7392001-0-7. Available at: <https://www.familybusinessuk.org/wp-content/uploads/2023/06/the-state-of-the-nation-the-uk-family-business-sector-20212022.pdf> (Accessed: [15 January, 2023]).

IFB Research Foundation (2020) *The UK family business sector 2019–20: State of the nation report*. London: IFB Research Foundation.

Ingram, T. and Glód, W. (2018) 'Development of family businesses in the conditions of the global economy', *Management Issues*, 16(1), pp. 30–47.

Institute of Internal Auditors (IIA) (2019) *International Standards for the Professional Practice of Internal Auditing (Standards)*. Lake Mary, FL: The Institute of Internal Auditors.

Jaafar, S., James, K. and Wahab, E.A.A. (2012) 'Remuneration committee and director remuneration in family-owned companies: Evidence from Malaysia', *International Review of Business Research Papers*, 8(2), pp. 17–38.

Jaccard, J. and Turrisi, R. (2003) *Interaction Effects in Multiple Regression*. 2nd edn. Thousand Oaks, CA: Sage Publications.

Jackson, G. and Deeg, R. (2008) 'Comparing capitalisms: Understanding institutional diversity and its implications for international business', *Journal of*

International Business Studies, 39(4), pp. 540–561. doi: 10.1057/palgrave.jibs.8400375.

Jaggi, B. and Leung, S. (2007) ‘Impact of family dominance on monitoring of earnings management by audit committees: Evidence from Hong Kong’, *Journal of International Accounting, Auditing and Taxation*, 16(1), pp. 27–50. doi: 10.1016/j.intaccaudtax.2006.12.003.

Jaggi, B., Leung, S. and Gul, F. (2009) ‘Family control, board independence and earnings management: Evidence based on Hong Kong firms’, *Journal of Accounting and Public Policy*, 28(4), pp. 281–300. doi: 10.1016/j.jaccpubpol.2009.06.002.

Jamei, R. (2017) ‘Tax avoidance and corporate governance mechanisms: Evidence from Tehran Stock Exchange’, *International Journal of Economics and Financial Issues*, 7(4), pp. 638–644. Available at: <https://www.econjournals.com/index.php/ijefi/article/view/5267> (Accessed: 21 October 2025).

Jensen, M.C. (1993) ‘The modern industrial revolution, exit, and the failure of internal control systems’, *Journal of Finance*, 48(3), pp. 831–880. doi: 10.1111/j.1540-6261.1993.tb04022.x.

Jensen, M.C. and Meckling, W.H. (1976) ‘Theory of the firm: Managerial behavior, agency costs and ownership structure’, *Journal of Financial Economics*, 3(4), pp. 305–360.

Jensen, M.C. and Murphy, K.J. (1990) ‘Performance pay and top-management incentives’, *Journal of Political Economy*, 98(2), pp. 225–264. doi: 10.1086/261677.

Jianakoplos, N.A. and Bernasek, A. (1998) ‘Are women more risk averse?’, *Economic Inquiry*, 36(4), pp. 620–630.

Jiang, H., Hu, W. and Jiang, P. (2024) 'Does ESG performance affect corporate tax avoidance? Evidence from China', *Finance Research Letters*, 61(C).

Johnston, M.P. (2017) 'Secondary data analysis: A method of which the time has come', *Qualitative and Quantitative Methods in Libraries*, 3(3), pp. 619–626. Available at: <https://qqml-journal.net/index.php/qqml/article/view/169>

Kanagaretnam, K., Krishnan, G. and Lobo, G.J. (2016) 'Audit quality and corporate tax aggressiveness', *Accounting Perspectives*, 15(1), pp. 1–26. doi:10.1111/1911-3838.12083.

Kanagaretnam, K., Lee, J., Lim, C.Y. and Lobo, G.J. (2016) 'Auditor quality and audit report timeliness: Global evidence', *Auditing: A Journal of Practice & Theory*, 35(4), pp. 1–31. doi:10.2308/ajpt-51400.

Karolyi, G.A. (2012) 'Corporate governance, agency problems and international cross-listings: A defence of the bonding hypothesis', *Emerging Markets Review*, 13(4), pp. 516–547.

Ketokivi, M. and Mantere, S. (2010) 'Two strategies for inductive reasoning in organizational research', *Academy of Management Review*, 35(2), pp. 315–333. doi: 10.5465/amr.35.2.zok315.

Khan, A. and Subramaniam, N. (2012) 'Corporate governance and the role of external auditors: Evidence from family-controlled firms', *International Journal of Accounting and Information Management*, 20(2), pp. 163–179. doi: 10.1108/18347641211218405.

Klapper, L.F. and Love, I. (2004) 'Corporate governance, investor protection, and performance in emerging markets', *Journal of Corporate Finance*, 10(5), pp. 703–728.

Klassen, K.J., Lisowsky, P., Mescall, D. and Schmidt, A.P. (2016) 'The role of auditors, non-audit services, and tax aggressiveness', *The Accounting Review*, 91(3), pp. 515–546. doi:10.2308/accr-51282.

Klein, A. (2002) 'Audit committee, board of director characteristics, and earnings management', *Journal of Accounting and Economics*, 33(3), pp. 375–400. doi: 10.1016/S0165-4101(02)00059-9.

Koenker, R. and Bassett, G. Jr. (1982) 'Robust tests for heteroscedasticity based on regression quantiles', *Econometrica*, 50(1), pp. 43–61.

Kovermann, J. and Velte, P. (2019) 'The impact of corporate governance on corporate tax avoidance—A literature review', *Journal of International Accounting, Auditing and Taxation*, 36, 100270. doi: 10.1016/j.intaccaudtax.2019.100270.

Kovermann, J. and Wendt, M. (2019) 'Tax avoidance in family firms: Evidence from a sample of German firms', *Journal of Family Business Strategy*, 10(2), pp. 138–150.

Kraaijenbrink, J., Spender, J.C. and Groen, A.J. (2010) 'The resource-based view: A review and assessment of its critiques', *Journal of Management*, 36(1), pp. 349–372.

Kraiczy, N.D., Hack, A. and Kellermanns, F.W. (2015) 'What makes a family firm innovative? CEO risk-taking propensity and the organisational context of family firms', *Journal of Product Innovation Management*, 32(3), pp. 334–348. doi: 10.1111/jpim.12203.

Krishnan, G.V. (2005) 'Audit committee quality and internal control: An empirical analysis', *The Accounting Review*, 80(2), pp. 649–675. doi: 10.2308/accr.2005.80.2.649.

- Krishnan, J., Sami, H. and Zhang, Y. (2005) 'Does the provision of non-audit services affect investor perceptions of auditor independence?', *Auditing: A Journal of Practice & Theory*, 24(2), pp. 111–135. doi: 10.2308/aud.2005.24.2.111.
- La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1999) 'Corporate ownership around the world', *Journal of Finance*, 54(2), pp. 471–517.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (1998) 'Law and finance', *Journal of Political Economy*, 106(6), pp. 1113–1155.
- Lanis, R. and Richardson, G. (2011) 'Proportion of non-employee directors; grey directors; independent directors', *Journal of Accounting and Public Policy*, [32 firms from Australia], 2001–2006.
- Lanis, R. and Richardson, G. (2018) 'Outside directors and CSR performance', *Journal of Accounting, Auditing & Finance*, 33(2), pp. 228–251.
- Lawrence, P.R. and Lorsch, J.W. (1967) *Organization and environment: Managing differentiation and integration*. Boston: Harvard Business School Press.
- Le Breton-Miller, I. and Miller, D. (2009) 'Agency vs. stewardship in public family firms: A social embeddedness reconciliation', *Entrepreneurship Theory and Practice*, 33(6), pp. 1169–1191.
- Le Breton-Miller, I., Miller, D. and Lester, R.H. (2011) 'Stewardship or agency? A social embeddedness reconciliation of conduct and performance in public family businesses', *Organization Science*, 22(3), pp. 704–721. doi: 10.1287/orsc.1100.0541.
- Le Breton-Miller, I. and Miller, D. (2013) 'Socioemotional wealth and family business performance: Measurement and insights from the FIBER scale', *Family Business Review*, 26(3), pp. 255–277.

- Le Breton-Miller, I., Miller, D. and Steier, L.P. (2004) 'Toward an integrative model of effective FOB succession', *Entrepreneurship Theory and Practice*, 28(4), pp. 305–328. doi: [10.1111/j.1540-6520.2004.00047.x](https://doi.org/10.1111/j.1540-6520.2004.00047.x)
- Lennox, C., Lisowsky, P. and Pittman, J. (2013) 'Tax aggressiveness and accounting fraud', *Journal of Accounting Research*, 51(4), pp. 739–778.
- Lim, C.Y. and Tan, H.T. (2008) 'Non-audit service fees and audit quality: The impact of auditor specialization', *Journal of Accounting Research*, 46(1), pp. 199–246. doi: [10.1111/j.1475-679X.2008.00268.x](https://doi.org/10.1111/j.1475-679X.2008.00268.x).
- Lins, K.V., Volpin, P. and Wagner, H.F. (2013) 'Does family control matter? International evidence from the 2008–2009 financial crisis', *Review of Financial Studies*, 26(10), pp. 2583–2619.
- Lipton, M. and Lorsch, J.W. (1992) 'A modest proposal for improved corporate governance', *Business Lawyer*, 48(1), pp. 59–77.
- Lisowsky, P. (2010) 'Seeking shelter: Empirically modeling tax shelters using financial statement information', *The Accounting Review*, 85(5), pp. 1693–1720.
- Liu, Y., Wei, Z. & Xie, F., (2014) 'Do women directors improve firm performance in China?', *Journal of Corporate Finance*, 28(C), pp. 169-184. doi:[10.1016/j.jcorpfin.2013.11.016](https://doi.org/10.1016/j.jcorpfin.2013.11.016).
- López-González, E., Martínez-Ferrero, J. and García-Meca, E. (2019) 'Corporate social responsibility in family firms: A contingency approach', *Journal of Cleaner Production*, 211, pp. 1044–1064. doi: [10.1016/j.jclepro.2018.11.251](https://doi.org/10.1016/j.jclepro.2018.11.251).
- Luo, Y., Lan, Y. and Tang, Q. (2020) 'Auditor independence and tax aggressiveness: Evidence from China', *Journal of International Accounting, Auditing and Taxation*, 38, 100305. doi:[10.1016/j.intaccaudtax.2020.100305](https://doi.org/10.1016/j.intaccaudtax.2020.100305)

Madison, K., Holt, D.T., Kellermanns, F.W. and Ranft, A.L. (2016) 'Viewing family firm behavior and governance through the lens of agency and stewardship theories', *Family Business Review*, 29(1), pp. 65–93. doi: 10.1177/0894486515594292.

Mafrolla, E. and D'Amico, E. (2016) 'Tax aggressiveness in family firms and the non-linear entrenchment effect', *Journal of Family Business Strategy*, 7(3), pp. 178–184.

Main, B.G.M., Bruce, A. and Buck, T. (1996) 'Total board remuneration and company performance', *Economic Journal*, 106(439), pp. 1627–1644. doi: 10.2307/2235199.

Mallin, C. (2019) *Corporate Governance*. 6th edn. Oxford: Oxford University Press.

Manzon, G.B. Jr. and Plesko, G.A. (2002) 'The relation between financial and tax reporting measures of income', *Tax Law Review*, 55, pp. 175–214.

McClure, R., Lanis, R., Wells, P. and Govendir, B. (2018) 'The impact of dividend imputation on corporate tax avoidance: The case of shareholder value', *Journal of Corporate Finance*, 48, pp. 492–514.

McGuire, S.T., Wang, D. and Wilson, R.J. (2014) 'Dual class ownership and tax avoidance', *The Accounting Review*, 89(4), pp. 1487–1516. doi: 10.2308/accr-50718.

Michiels, A., Voordeckers, W., Lybaert, N. and Steijvers, T. (2013) 'CEO compensation in private family firms: Pay-for-performance and the moderating role of ownership and management', *Family Business Review*, 26(2), pp. 140–160. doi: 10.1177/0894486512469254.

Miller, D., Jaskiewicz, P. and Spiegel, F. (2013) 'What happened to the “family effect”? Family firm decline in declining industries', *Family Business Review*, 26(1), pp. 102–122. doi: 10.1177/0894486512441944.

Miller, D. and Le Breton-Miller, I. (2006) 'Family governance and firm performance: Agency, stewardship, and capabilities', *Family Business Review*, 19(1), pp. 73–87. doi: 10.1111/j.1741-6248.2006.00063.x.

Miller, D., Le Breton-Miller, I., Lester, R.H. and Cannella, A.A. (2007) 'Are family firms really superior performers?', *Journal of Corporate Finance*, 13(5), pp. 829–858.

Miller, D. and Le Breton-Miller, I. (2014) 'Deconstructing socioemotional wealth', *Entrepreneurship Theory and Practice*, 38(4), pp. 713–720.

Mills, L., Erickson, M.M. and Maydew, E.L. (1998) 'Investments in tax planning', *Journal of the American Taxation Association*, 20(1), pp. 1–20.

Milgrom, P. and Roberts, J. (1995) 'Complementarities and fit strategy, structure, and organizational change in manufacturing', *Journal of Accounting and Economics*, 19(2–3), pp. 179–208. doi: 10.1016/0165-4101(94)00382-F.

Minichilli, A., Corbetta, G. and MacMillan, I.C. (2010) 'Top management teams in family-controlled companies: 'Familianness', 'faultlines', and their impact on financial performance', *Journal of Management Studies*, 47(2), pp. 205–222. doi: 10.1111/j.1467-6486.2009.00888.x

Minnick, K. and Noga, T. (2010) 'Pay–performance sensitivity and corporate governance', *Journal of Corporate Finance*, [456 firm five-year averages], 1996–2005.

Miroshnychenko, I., De Massis, A., Miller, D. and Barontini, R. (2021) 'Family business growth around the world', *Entrepreneurship Theory and Practice*, 45(4), pp. 682–708. doi: 10.1177/1042258720913028.

Misangyi, V.F. and Acharya, A.G. (2014) 'Substitutes or complements? A configurational examination of corporate governance mechanisms', *Academy of Management Journal*, 57(6), pp. 1681–1705. doi: 10.5465/amj.2012.0728.

- Mkadmi, J.E. and Ben Ali, W. (2024) 'How does tax avoidance affect corporate social responsibility and financial ratio in emerging economies?', *Journal of Economic Criminology*, 5, 100070. doi: 10.1016/j.jeconc.2024.100070.
- Moore, J.A., Suh, S. and Werner, E.M. (2017) 'Dual entrenchment and tax management: Classified boards and family firms', *Journal of Business Research*, 79, pp. 161–172. doi: 10.1016/j.jbusres.2017.06.007.
- Morck, R., Shleifer, A. and Vishny, R.W. (1988) 'Management ownership and market valuation: An empirical analysis', *Journal of Financial Economics*, 20, pp. 293–315.
- Munter, P. (2015) 'The importance of an internal audit charter', *The CPA Journal*, 85(7), pp. 12–14.
- Murphy, K.J. (1999) 'Executive compensation', *Handbook of Labor Economics*, 3(B), pp. 2485–2563. doi: 10.1016/S1573-4463(99)30024-9.
- Myers, S.C. and Majluf, N.S. (1984) 'Corporate financing and investment decisions when firms have information that investors do not have', *Journal of Financial Economics*, 13(2), pp. 187–221.
- Nebie, M. and Cheng, M.-C. (2023) 'Corporate tax avoidance and firm value: Evidence from Taiwan', *Cogent Business & Management*, 10(3), 2282218. doi: 10.1080/23311975.2023.2282218.
- Newman, H.A. and Mozes, H.A. (1999) 'Does the composition of the compensation committee influence CEO compensation practices?', *Financial Management*, 28(3), pp. 41–53. doi: 10.2307/3666201.
- Nguyen, Q.K. (2021) 'Audit committee structure, institutional quality, and bank stability: Evidence from ASEAN countries', *Finance Research Letters*, 46, article 102369. doi:10.1016/j.frl.2021.102369.

Nguyen, A.D. and Moursli, M.R. (2024) 'Foundation-controlled firms and CEO compensation', *International Review of Financial Analysis*, 95(Part B), 103417. doi: 10.1016/j.irfa.2024.103417.

Nordqvist, M., Sharma, P. and Chirico, F. (2014) 'Family firm heterogeneity and governance: A configuration approach', *Journal of Small Business Management*, 52(2), pp. 192–209. doi: 10.1111/jsbm.12096.

OECD (2020) *OECD/G20 Inclusive Framework on BEPS: Progress report July 2019 – July 2020*. Paris: OECD Publishing. Available at: https://www.oecd.org/en/publications/2020/07/oecd-g20-inclusive-framework-on-beps-progress-report-july-2019-july-2020_a07329c8.html (Accessed: 15 August 2025).

OECD (2015) *Transfer pricing documentation and country-by-country reporting: Action 13 – 2015 final report*. Paris: OECD Publishing. Available at: https://www.oecd.org/en/publications/2015/10/transfer-pricing-documentation-and-country-by-country-reporting-action-13-2015-final-report_g1g58cf0.html (Accessed: 20 June 2024).

Omesì, I. and Appah, E. (2021) 'Corporate governance and tax avoidance of listed consumer and industrial goods companies in Nigeria', *IOSR Journal of Economics and Finance*, 12(2), pp. 17–31. doi: 10.9790/5933-1202041731.

Oradi, J. and E-Vahdati, S. (2021) 'Female directors on audit committees, the gender of financial experts, and internal control weaknesses: Evidence from Iran', *Accounting Forum*, 45(3), pp. 273–306. doi: 10.1080/01559982.2021.1920127.

Oyotode-Adebile, R., Hibbert, A.M. and Shankar, S. (2022) 'The impact of gender-diverse boards and institutional investors on accruals management',

Journal of Behavioral and Experimental Finance, 34, Article 100621. doi: 10.1016/j.jbef.2021.100621.

Patel, P.C. and Chrisman, J.J. (2014) 'Risk abatement as a strategy for R&D investments in family firms', *Strategic Management Journal*, 35(4), pp. 617–627. doi: 10.1002/smj.2119.

Patel, P.C. and Cooper, D. (2014) 'The harder they fall, the faster they rise: Approach and avoidance focus in family and nonfamily firms after economic shocks', *Family Business Review*, 27(4), pp. 372–392. doi: 10.1177/0894486514538078.

Pearson, A.W., Carr, J.C. and Shaw, J.C. (2008) 'Toward a theory of familiness: A social capital perspective', *Entrepreneurship Theory and Practice*, 32(6), pp. 949–969. doi: 10.1111/j.1540-6520.2008.00265.x.

Peasnell, K.V., Pope, P.F. and Young, S. (2005) 'Board monitoring and earnings management: Do outside directors influence abnormal accruals?', *Journal of Business Finance & Accounting*, 32(7–8), pp. 1311–1346. doi: 10.1111/j.0306-686X.2005.00630.x

Peng, P. and Lin, G. (2024) 'Local government debt and corporate tax avoidance: Evidence from China', *Finance Research Letters*, 59, 104766. doi: 10.1016/j.frl.2023.104766.

Peni, E. and Vähämaa, S. (2010) 'Female executives and earnings management', *Managerial Finance*, 36(7), pp. 629–645. doi: 10.1108/03074351011050343.

Petersen, M.A. (2009) 'Estimating standard errors in finance panel data sets: Comparing approaches', *Review of Financial Studies*, 22(1), pp. 435–480. doi: 10.1093/rfs/hhn053.

Pfeffer, J. and Salancik, G.R. (1978) *The external control of organizations: A resource dependence perspective*. New York: Harper & Row.

Phillips, J.D. (2003) 'Corporate tax-planning effectiveness: The role of compensation-based incentives', *The Accounting Review*, 78(3), pp. 847–874.

Plöckinger, M., Aschauer, E., Hiebl, M.R. and Rohatschek, R. (2016) 'The influence of individual executives on corporate financial reporting: A review and outlook from the perspective of upper echelons theory', *Journal of Accounting Literature*, 37, pp. 55–75.

Pöll, J.A., Bertschi-Michel, A., Hack, A., Ahlers, O. and Wright, M. (2024) 'Stakeholder relations as an asset in family firms: Performance effects of changes after private equity investment', *Scandinavian Journal of Management*, [online first]. doi: 10.1016/j.scaman.2024.100123.

Plesko, G.A. (2003) 'An evaluation of alternative measures of corporate tax rates', *Journal of Accounting and Economics*, 35(2), pp. 201–226. doi: 10.1016/S0165-4101(03)00019-3.

Post, C., Rahman, N. and Rubow, E. (2011) 'Green governance: Boards of directors' composition and environmental corporate social responsibility', *Business & Society*, 50(1), pp. 189–223.

Poutziouris, P., Savva, C.S. and Hadjielias, E. (2015) 'Family involvement and firm performance: Evidence from UK listed firms', *Journal of Family Business Strategy*, 6(1), pp. 14–32. doi: 10.1016/j.jfbs.2014.12.001.

Prencipe, A., Bar-Yosef, S., Mazzola, P. and Pozza, L. (2011) 'Income smoothing in family-controlled companies: Evidence from Italy', *Corporate Governance: An International Review*, 19(6), pp. 529–546. doi: 10.1111/j.1467-8683.2011.00859.x.

Pugliese, A., Minichilli, A. and Zattoni, A. (2014) 'Integrating agency and resource dependence theory: Firm profitability, industry regulation, and board task performance', *Journal of Business Research*, 67(6), pp. 1189–1200. doi: 10.1016/j.jbusres.2013.04.002.

Quick, R. and Warming-Rasmussen, B. (2015) 'Auditor independence and the provision of non-audit services: Perceptions by German investors', *International Journal of Auditing*, 19(3), pp. 182–193. doi: 10.1111/ijau.12039.

Raheja, C.G. (2005) 'Determinants of board size and composition: A theory of corporate boards', *Journal of Financial and Quantitative Analysis*, 40(2), pp. 283–306.

Rego, S.O. (2003) 'Tax-avoidance activities of U.S. multinational corporations', *Contemporary Accounting Research*, 20(4), pp. 805–833. doi: 10.1506/VANN-B7UB-GMFA-9E6W.

Rego, S.O. and Wilson, R. (2012) 'Equity risk incentives and corporate tax aggressiveness', *Journal of Accounting Research*, 50(3), pp. 775–810. doi: 10.1111/j.1475-679X.2012.00438.x.

Richardson, G. and Lanis, R. (2007) 'Determinants of the variability in corporate effective tax rates and tax reform: Evidence from Australia', *Journal of Accounting and Public Policy*, 26(6), pp. 689–704. doi: 10.1016/j.jaccpubpol.2007.10.003.

Richardson, G., Lanis, R. and Taylor, G. (2015) 'Financial distress, the global financial crisis, moderated by percentage of outside directors', *Journal of Banking & Finance*, [3,765 firm-years], 2006–2010.

Richardson, G., Taylor, G. and Lanis, R. (2013) 'Big 4 auditor, proportion of non-audit services, proportion of independent members on the audit committee', *Journal of Accounting and Public Policy*, [812 firm-years from Australia], 2006–2009.

- Richardson, G., Taylor, G. and Lanis, R. (2016) ‘Women on the board of directors and corporate tax aggressiveness in Australia: An empirical analysis’, *Accounting Research Journal*, 29(3), pp. 313–331. doi: 10.1108/ARJ-09-2014-0079.
- Rizqia, D.A. and Lastiati, E. (2021) ‘The effect of corporate governance, audit quality, and company size on tax avoidance’, *Journal of Economics, Finance and Accounting Studies*, 3(2), pp. 87–101. doi:10.32996/jefas.2021.3.2.10.
- Roberts, M.R. and Whited, T.M. (2013) ‘Endogeneity in empirical corporate finance’, in Constantinides, G., Harris, M. and Stulz, R.M. (eds.) *Handbook of the economics of finance*. Vol. 2. Amsterdam: Elsevier, pp. 493–572.
- Robertsson, A., Zellweger, T. and Klein, S.B. (2023) *The Global Family Business Report 2023: The Resilient Power of Families in Business*. Switzerland: University of St. Gallen and EY. Available at: <https://familybusinessindex.com> (Accessed: 20 October 2024).
- Robinson, J.R., Xue, Y. and Zhang, M.H. (2021) ‘Board risk oversight and corporate tax-planning practices’, *Journal of Management Accounting Research*, 33(1), pp. 7–32. doi:10.2308/jmar-18-051.
- Robinson, J.R., Xue, Y. and Zhang, M.H. (2012) ‘Tax planning and financial expertise in the audit committee’. *Working paper*. Available at: <https://doi.org/10.2139/ssrn.2146003> (Accessed: 21 October 2025).
- Rodríguez-García, P. and Menéndez-Requejo, S. (2023) ‘Family constitution to manage family firms’ agency conflicts’, *BRQ: Business Research Quarterly*, 26(2), pp. 150-166. doi: 10.1177/2340944420980444.
- Roodman, D. (2009) ‘How to do xtabond2: An introduction to difference and system GMM in Stata’, *The Stata Journal*, 9(1), pp. 86–136.

Rosenbaum, P.R. and Rubin, D.B. (1983) 'The central role of the propensity score in observational studies for causal effects', *Biometrika*, 70(1), pp. 41–55. doi: 10.1093/biomet/70.1.41.

RSM UK (2024) 'Corporate criminal offence – tax risk and governance', *RSM UK Insights*. Available at: <https://www.rsmuk.com/what-we-offer/services/tax/tax-risk-and-governance/corporate-criminal-offence> (Accessed: 20 July 2025).

Ruddock, C., Taylor, S.J. and Taylor, S.L. (2006) 'Nonaudit services and earnings conservatism: Is auditor independence impaired?', *Contemporary Accounting Research*, 23(3), pp. 701–746. doi: 10.1506/5T9T-BU4T-EJHB-7H1E.

Salehi, M., Tarighi, H. and Shahri, T.A. (2020) 'The effect of auditor characteristics on tax avoidance of Iranian companies', *Journal of Asian Business and Economic Studies*, 27(2), pp. 119–134. doi:10.1108/JABES-11-2018-0100

Sanchez-Marin, G., Baixauli-Soler, J.S. and Lucas-Perez, M.E. (2016) 'How does family involvement affect corporate environmental policy? A contingency approach', *Long Range Planning*, 49(6), pp. 684–698.

Sanchez-Marin, G., Portillo-Navarro, M.J. and Clavel, J.G. (2016) 'The influence of family involvement on tax aggressiveness of family firms', *Journal of Family Business Management*, 6(2), pp. 143–168.

Saunders, M., Lewis, P. and Thornhill, A. (2019) *Research Methods for Business Students*. 8th edn. Harlow: Pearson Education Limited.

Saurabh, K. & Kumar, V. (2025) 'Descendant CEOs and cross-border acquisitions in family firms: The moderating role of family involvement', *Long Range Planning*, 58(4), 102538. doi: 10.1016/j.lrp.2025.102538.

Saxon, I., Shafat, M. and Desai, A. (2023) *bp's economic impact on the UK economy in 2022*. Oxford: Oxford Economics. Available at:

<https://www.oxfordeconomics.com/resource/bps-economic-impact-on-the-uk-economy-in-2022/> (Accessed: [23rd August 2024]).

Schulze, W.S. and Kellermanns, F.W. (2015) 'Reifying socioemotional wealth', *Entrepreneurship Theory and Practice*, 39(3), pp. 447–459. doi: 10.1111/etap.12159.

Schulze, W.S., Lubatkin, M.H. and Dino, R.N. (2003) 'Toward a theory of agency and altruism in family firms', *Journal of Business Venturing*, 18(4), pp. 473–490.

Schulze, W.S., Lubatkin, M.H., Dino, R.N. and Buchholtz, A.K. (2001) 'Agency relationships in family firms: Theory and evidence', *Organization Science*, 12(2), pp. 99–116.

Schweiger, N., Matzler, K., Hautz, J. & De Massis, A. (2024) 'Family businesses and strategic change: the role of family ownership', *Review of Managerial Science*, 18(10), pp. 2981-3005. doi: 10.1007/s11846-023-00703-3.

Scott, W.R. (2008) *Institutions and organizations: Ideas and interests*. 3rd edn. London: Sage Publications.

Seidman, J.K. and Stomberg, B. (2017) 'Equity compensation and tax avoidance: Disentangling management and shareholder incentives', *The Accounting Review*, 92, pp. 1–24.

Sikarwar, E. (2022) 'Board attributes, hedging activities and exchange rate risk: Multi-country firm-level evidence', *Economic Modelling*, 110, 105800. doi: 10.1016/j.econmod.2022.105800.

Sikka, P. (2010) 'Smoke and mirrors: Corporate social responsibility and tax avoidance', *Accounting Forum*, 34(3-4), pp. 153–168. doi: 10.1016/j.accfor.2010.05.002.

Sila, V., Gonzalez, A. and Hagendorff, J. (2016) 'Women on board: Does boardroom gender diversity affect firm risk?', *Journal of Corporate Finance*, 36, pp. 26–53. doi: 10.1016/j.jcorpfin.2015.10.003.

Shabbir, M.F., et al. (2024) 'The role of CEO duality, board size, and compensation committee in aligning pay–performance with long-term sustainability performance'. *Future Business Journal*. Available at: link.springer.com (accessed 21 Oct 2025).

Sharma, P. and Irving, P.G. (2005) 'Four bases of family business successor commitment: Antecedents and consequences', *Entrepreneurship Theory and Practice*, 29(1), pp. 13–33. doi: 10.1111/j.1540-6520.2005.00067.x.

Sharma, D.S. and Sidhu, J. (2001) 'Professionalism vs commercialism: The association between non-audit services (NAS) and audit independence', *Journal of Business Finance & Accounting*, 28(5–6), pp. 563–594. doi: 10.1111/1468-5957.00386.

Shi, X., Hou, J. and Gu, Q. (2023) 'In-laws' involvement in management and tax avoidance: Evidence from family firms in China', *Finance Research Letters*, 53, Article 103646. doi: 10.1016/j.frl.2023.103646.

Shleifer, A. and Vishny, R.W. (1986) 'Large shareholders and corporate control', *Journal of Political Economy*, 94(3), pp. 461–488.

Shleifer, A. and Vishny, R.W. (1997) 'A survey of corporate governance', *Journal of Finance*, 52(2), pp. 737–783.

Sirmon, D.G. and Hitt, M.A. (2003) 'Managing resources: Linking unique resources, management, and wealth creation in family firms', *Entrepreneurship Theory and Practice*, 27(4), pp. 339–358.

Smith, R. (2003) *Audit committees combined code guidance*. London: Financial Reporting Council.

Songini, L. and Gnan, L. (2015) 'Family involvement and agency cost control mechanisms in family small and medium-sized enterprises', *Journal of Small Business Management*, 53(3), pp. 748–779.

Srinidhi, B., Gul, F.A. and Tsui, J. (2011) 'Female directors and earnings quality', *Contemporary Accounting Research*, 28(5), pp. 1610–1644. doi: 10.1111/j.1911-3846.2011.01071.x.

Stathopoulos, K. and Voulgaris, G. (2016) 'The importance of shareholder activism: The case of say-on-pay', *Corporate Governance: An International Review*, 24(3), pp. 359–370. doi: 10.1111/corg.12147.

Steijvers, T. and Niskanen, M. (2014) 'Tax aggressiveness in private family firms: An agency perspective', *Journal of Family Business Strategy*, 5(4), pp. 347–357.

Stuart, E.A. (2010) 'Matching methods for causal inference: A review and a look forward', *Statistical Science*, 25(1), pp. 1–21.

Tan, Q., Ling, Y., Yang, B. and Geng, P. (2023) 'Does CEO early-life famine experience affect corporate tax avoidance? Evidence from China', *Research in International Business and Finance*, 66, 102015. doi: 10.1016/j.ribaf.2023.102015.

Taylor, G. and Richardson, G. (2014) 'Incentives for corporate tax planning and reporting: Empirical evidence from Australia', *Journal of Contemporary Accounting & Economics*, 10(1), pp. 1–15.

Thiruvadi, S. and Huang, H.W. (2011) 'Audit committee gender differences and earnings management', *Gender in Management: An International Journal*, 26(7), pp. 483–498. doi: 10.1108/175424111111175469.

Turley, S. and Zaman, M. (2004) 'The corporate governance effects of audit committees', *Journal of Management and Governance*, 8(3), pp. 305–332. doi: 10.1007/s10997-004-1110-5.

Ullah, S., Akhtar, P. and Zaefarian, G. (2018) 'Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data', *Industrial Marketing Management*, 71, pp. 69–78.

Vafeas, N. (1999) 'Board meeting frequency and firm performance', *Journal of Financial Economics*, 53(1), pp. 113–142.

Valsan, R. (2016) 'Board gender diversity and the enlightened shareholder value principle', *The Company Lawyer*, 37(6), p. 17. Available at: https://www.pure.ed.ac.uk/ws/portalfiles/portal/21782991/Valsan_2015_ES_V_and_gender_diversity.pdf (Accessed: [access date not provided]).

Villalonga, B. and Amit, R. (2006) 'How do family ownership, control and management affect firm value?', *Journal of Financial Economics*, 80(2), pp. 385–417.

Villalonga, B. and Amit, R. (2020) 'Family ownership', in *Oxford research encyclopedia of business and management*. Oxford: Oxford University Press.

Villalonga, B., Amit, R., Trujillo, M.A. and Guzmán, A. (2015) 'Governance of family firms', *Annual Review of Financial Economics*, 7, pp. 635–654.

Wang, C., Richardson, G. and Cao, Y. (2024) 'Long live the walking dead? Corporate tax avoidance and zombie firms in China', *The British Accounting Review*, 56(3), 101319. doi: 10.1016/j.bar.2024.101319.

Ward, A.J., Brown, J.A. and Rodriguez, D. (2009) 'Governance bundles, firm performance, and the substitutability and complementarity of governance mechanisms', *Corporate Governance: An International Review*, 17(5), pp. 646–660.

- Ward, A., Wylie, J. and Hamill, P. (2013) 'Evolution of corporate governance reports in the United Kingdom and Ireland', in Idowu, S.O., Capaldi, N., Zu, L. and Gupta, A.D. (eds.) *Encyclopedia of corporate social responsibility*. Berlin and Heidelberg: Springer, pp. 1111–1120. doi: 10.1007/978-3-642-28036-8.
- Watson, J. and McNaughton, M. (2007) 'Gender differences in risk aversion and expected retirement benefits', *Financial Analysts Journal*, 63(4), pp. 52–62.
- Weisbach, M.S. (1988) 'Outside directors and CEO turnover', *Journal of Financial Economics*, 20, pp. 431–460.
- Wernerfelt, B. (1984) 'A resource-based view of the firm', *Strategic Management Journal*, 5(2), pp. 171–180.
- White, H. (1980) 'A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity', *Econometrica*, 48(4), pp. 817–838.
- Wilde, J.H. and Wilson, R.J. (2018) 'Perspectives on corporate tax planning: Observations from the past decade', *Journal of the American Taxation Association*, 40(2), pp. 63–81.
- Windmeijer, F. (2005) 'A finite sample correction for the variance of linear efficient two-step GMM estimators', *Journal of Econometrics*, 126(1), pp. 25–51.
- Wintoki, M.B., Linck, J.S. and Netter, J.M. (2012) 'Endogeneity and the dynamics of internal corporate governance', *Journal of Financial Economics*, 105(3), pp. 581–606.
- Wooldridge, J.M. (2010) *Econometric analysis of cross section and panel data*. 2nd edn. Cambridge, MA: MIT Press.
- Wu, K., Sorensen, S. and Sun, L. (2019) 'Board independence and information asymmetry: Family firms vs non-family firms', *Asian Review of Accounting*, 27(3), pp. 329–349. doi: 10.1108/ARA-05-2018-0110.

Xian, C., Sun, F. and Zhang, Y. (2015) 'Book-tax differences: Are they affected by equity-based compensation?', *Accounting Research Journal*, 28(3), pp. 300–318. doi: 10.1108/ARJ-12-2013-0088.

Yermack, D. (1996) 'Higher market valuation of companies with a small board of directors', *Journal of Financial Economics*, 40(2), pp. 185–211. doi: 10.1016/0304-405X(95)00844-5.

Zahra, S.A. and Pearce, J.A. II. (1989) 'Boards of directors and corporate financial performance: A review and integrative model', *Journal of Management*, 15(2), pp. 291–334. doi:10.1177/014920638901500208.

Zattoni, A., Dedoulis, E. and Leventis, S. (2021) 'Corporate governance and risk management: A systematic literature review', *Corporate Governance: An International Review*, 29(4), pp. 349–382. doi: 10.1111/corg.12372.

Zattoni, A., Gnan, L. and Huse, M. (2015) 'Does family involvement influence firm performance? Exploring the mediating effects of board processes and tasks', *Journal of Management*, 41(4), pp. 1214–1243. doi: 10.1177/0149206312463936.

Zellweger, T.M., Eddleston, K.A. and Kellermanns, F.W. (2010) 'Exploring the concept of familiness: Introducing family firm identity', *Journal of Family Business Strategy*, 1(1), pp. 54–63. doi: 10.1016/j.jfbs.2009.12.003.

Zellweger, T. and Kammerlander, N. (2015) 'Family, wealth, and governance: An agency account', *Entrepreneurship Theory and Practice*, 39(6), pp. 1281–1303. doi: 10.1111/etap.12182.

Zemzem, A. and Ftouhi, K. (2013) 'The effects of board of directors' characteristics on tax aggressiveness', *Research Journal of Finance and Accounting*, 4(4), pp. 140–147.

Appendix

Table A7.1ABC – For Table 7.1 A, B and C

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
L.LBOTD	-0.0255775 (0.1106142)	0.1312647 (0.0858026)	0.0548821 (0.0830774)
Main Effects:			
FAMO	[IMPLIED IN INTERACTIONS]	-	[IMPLIED IN INTERACTIONS]
FAMB	-	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
FAMO_FAMB	-	-	[IMPLIED IN INTERACTIONS]
Board Characteristics:			
BIND	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
LBSIZE	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
FEXB	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTIONS]
FBRD	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTIONS]
Management Compensation:			
DRTP	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTIONS]
RCIN	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTIONS]
RCSZ	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTIONS]
FMRC	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTION S]	[IMPLIED IN INTERACTIONS]

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
Regulatory Mechanisms:			
AUSZ	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
AUCH	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
AUDR	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
BIG4	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
FDAC	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
Family Ownership Interactions:			
FAMO×BIND	0.007427*** (0.0002295)	-	-

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
FAMO×LBSZE	-0.0110685 (0.0093473)	-	-
FAMO×FEXB	-0.0002278 (0.0002087)	-	-
FAMO×FBRD	0.0003594 (0.0003057)	-	-
FAMO×DRTP	0.0370682** (0.0164083)	-	-
FAMO×RCIN	-0.0135423 (0.0168139)	-	-
FAMO×RCSZ	-0.0043706** (0.0019705)	-	-
FAMO×FMRC	-0.0062875 (0.013717)	-	-
FAMO×AUSZ	-0.0005309 (0.0025801)	-	-
FAMO×AUCH	0.0146313** (0.0060526)	-	-
FAMO×AUDR	-0.0095274 (0.0102523)	-	-

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
FAMO×BIG4	0.0056791 (0.0089602)	-	-
FAMO×FDAC	-0.0231177 (0.0148213)	-	-
Family Board Interactions:			
FAMB×BIND	-	0.0008935*** (0.0002426)	-
FAMB×LBSIZE	-	0.0005691 (0.0202367)	-
FAMB×FEXB	-	-0.0002112 (0.0001666)	-
FAMB×FBRD	-	-0.0002806 (0.0003793)	-
FAMB×DRTP	-	0.0173537 (0.0228746)	-
FAMB×RCIN	-	0.0011775 (0.0085132)	-
FAMB×RCSZ	-	-0.001966 (0.0041512)	-

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
FAMB×FMRC	-	-0.0111155 (0.0135952)	-
FAMB×AUSZ	-	-0.0007561 (0.0033472)	-
FAMB×AUCH	-	0.002237 (0.0093674)	-
FAMB×AUDR	-	-0.0274609 (0.0183685)	-
FAMB×BIG4	-	-0.013974 (0.0131308)	-
FAMB×FDAC	-	-0.0218718 (0.0173825)	-
Combined Family Influence Interactions:			
FAMO_FAMB×BIN D	-	-	0.000025** (0.0000107)
FAMO_FAMB×LBS ZE	-	-	-0.0005198 (0.0005432)

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
FAMO_FAMB×FEX B	-	-	-0.0000011 (0.0000122)
FAMO_FAMB×FBR D	-	-	0.0000032 (0.000025)
FAMO_FAMB×DRT P	-	-	0.0018388** (0.0008662)
FAMO_FAMB×RCI N	-	-	-0.0000762 (0.00542)
FAMO_FAMB×RCS Z	-	-	-0.0000763 (0.0001532)
FAMO_FAMB×FM RC	-	-	-0.0000236 (0.0008359)
FAMO_FAMB×AUS Z	-	-	-0.0000423 (0.0001391)
FAMO_FAMB×AUC H	-	-	0.0004052 (0.0003596)
FAMO_FAMB×AUD R	-	-	-0.0007924 (0.0005175)
FAMO_FAMB×BIG 4	-	-	0.0001572 (0.0002997)

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
FAMO_FAMB×FDA C	-	-	-0.0010987 (0.0008126)
Control Variables	Included	Included	Included
LLVRG	0.0777243 (0.0514672)	0.0624438 (0.0431276)	0.1122002 (0.0691367)
FSZE	-0.3744892** (0.164366)	-0.5359913 (0.1398757)	-0.9633569* (0.5503732)
LRTAS	0.0611457 (0.0481178)	0.069546 (0.0525799)	0.0902685 (0.0659949)
LAGE	-0.6025427* (0.3195223)	-0.0038839 (0.2096044)	-0.3435397 (0.3316898)
_cons	7.784029*** (1.686834)	6.88868*** (1.286333)	11.72236** (5.46814)
Year Effects	Yes	Yes	Yes
Observations	476	477	478
Firms	40	40	40
AR(1) p-value	0.0041	0.0003	0.0006
AR(2) p-value	0.8983	0.5400	0.7195
Wald Chi ²	309.42***	530.41***	205.48***

Variable	Model 7.1A (FAMO×All Gov)	Model 7.1B (FAMB×All Gov)	Model 7.1C (FAMO_FAMB×All Gov)
Instruments	95	95	95

Table A7.2ABC: Family Influence Moderation of Board Characteristics

Variable	Model 7.2A (FAMO×Board)	Model 7.2B (FAMB×Board)	Model 7.2C (FAMO_FAMB×Board)
L.LBOTD	0.1158595*** (0.0318761)	0.1200636** (0.0422853)	0.1181482*** (0.0364191)
Main Effects:			

Variable	Model 7.2A (FAMO×Board)	Model 7.2B (FAMB×Board)	Model 7.2C (FAMO_FAMB×Board)
FAMO	[IMPLIED IN INTERACTIONS]	-	[IMPLIED IN INTERACTIONS]
FAMB	-	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
FAMO_FAMB	-	-	[IMPLIED IN INTERACTIONS]
BIND	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
LBSIZE	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
FEXB	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
FBRD	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]	[IMPLIED IN INTERACTIONS]
Interaction Terms:			

Variable	Model 7.2A (FAMO×Board)	Model 7.2B (FAMB×Board)	Model 7.2C (FAMO_FAMB×Board)
FAMO×BIND	0.0004629*** (0.0001491)	-	-
FAMO×LBSIZE	-0.0110777** (0.0043812)	-	-
FAMO×FEXB	-0.0002438** (0.0001182)	-	-
FAMO×FBRD	0.0000333 (0.0002302)	-	-
FAMB×BIND	-	0.0005796*** (0.0002025)	-
FAMB×LBSIZE	-	-0.0139832 (0.0086919)	-
FAMB×FEXB	-	-0.0001286 (0.0000942)	-
FAMB×FBRD	-	-0.0003975 (0.0002665)	-
FAMO_FAMB×LBSIZE	-	-	-0.0003556** (0.0001258)
FAMO_FAMB×BIND	-	-	0.000019 (0.0000059)

Variable	Model 7.2A (FAMO×Board)	Model 7.2B (FAMB×Board)	Model 7.2C (FAMO_FAMB×Board)
FAMO_FAMB×FE XB	-	-	-0.000006 (0.0000061)
FAMO_FAMB×FB RD	-	-	-0.0000123 (0.000008)
Control Variables	Included	Included	Included
LLVRG	0.1096895 (0.0414698)	0.1002052 (0.0369568)	0.0777295 (0.0356663)
FSZE	-0.4928548* (0.3016116)	-0.448799 (0.1122284)	-0.4414344 (0.0980443)
LRTAS	0.012768 (0.0384413)	0.0441708 (0.0280385)	0.0284163 (0.0290876)
LAGE	-0.1766645 (0.0931152)	-0.09494 (0.109402)	-0.26998 (0.1350919)
_cons	7.04715 (2.611639)	6.483065 (1.036793)	6.861441 (0.7544303)
Year Effects	Yes	Yes	Yes
Observations	477	477	478
Firms	40	40	40
AR(1) p-value	0.0001	0.0001	0.001

Variable	Model 7.2A (FAMO×Board)	Model 7.2B (FAMB×Board)	Model 7.2C (FAMO_FAMB×Board)
AR(2) p-value	0.4472	0.4831	0.6254
Wald Chi ²	210.58***	179.52***	123.31***
Instruments	86	86	86

Detailed Table 7.1A-B: Family Ownership vs Family Board Moderation Effects

Variable	Model 7.1A	Model 7.1B
	Family Ownership	Family Board
	Moderation	Moderation
Main Effects		
LBOTD (L1)	-0.0256	0.1313
	(0.1106)	(0.0858)
	[-0.2424, 0.1912]	[-0.0369, 0.2994]

Variable	Model 7.1A	Model 7.1B
Board Interactions		
FAMOBIND/FAMBBIND	0.0007***	0.0009***
	(0.0002)	(0.0002)
	[0.0003, 0.0012]	[0.0004, 0.0014]
FAMOLBSZE/FAMBLBSZE	-0.0111	0.0006
	(0.0093)	(0.0202)
	[-0.0294, 0.0073]	[-0.0391, 0.0402]
FAMOFEXB/FAMBFEXB	-0.0002	-0.0002
	(0.0002)	(0.0002)
	[-0.0006, 0.0002]	[-0.0005, 0.0001]
FAMOFBRD/FAMBFBRD	0.0004	-0.0003
	(0.0003)	(0.0004)
	[-0.0002, 0.0009]	[-0.0010, 0.0005]
Compensation Interactions		
FAMODRTP/FAMBRTP	0.0371**	0.0176
	(0.0164)	(0.0229)
	[0.0049, 0.0692]	[-0.0275, 0.0627]
FAMORCIN/FAMBR CIN	-0.0135	0.0012
	(0.0168)	(0.0085)
	[-0.0464, 0.0194]	[-0.0155, 0.0179]
FAMORCSZ/FAMBRCSZ	-0.0043**	-0.0020
	(0.0020)	(0.0041)
	[-0.0082, -0.0004]	[-0.0101, 0.0062]
Regulatory Interactions		

Variable	Model 7.1A	Model 7.1B
FAMOFMRC/FAMBFMRC	-0.0063	-0.0111
	(0.0137)	(0.0136)
	[-0.0332, 0.0206]	[-0.0378, 0.0155]
FAMOAUSZ/FAMBAUSZ	-0.0003	-0.0008
	(0.0025)	(0.0033)
	[-0.0052, 0.0045]	[-0.0073, 0.0058]
FAMOAUCH/FAMBAUCH	0.0146**	0.0062
	(0.0061)	(0.0094)
	[0.0028, 0.0265]	[-0.0161, 0.0210]
FAMOAUDR/FAMBAUDR	-0.0095	-0.0275
	(0.0103)	(0.0184)
	[-0.0296, 0.0106]	[-0.0635, 0.0085]
Other Interactions		
FAMOBIG4/FAMBBIG4	0.0057	-0.0140
	(0.0090)	(0.0131)
	[-0.0119, 0.0232]	[-0.0397, 0.0118]
FAMOFDAC/FAMBFDAC	-0.0231	-0.0219
	(0.0148)	(0.0174)
	[-0.0522, 0.0059]	[-0.0559, 0.0121]
Control Variables		
LLVRG	0.0773	0.0624
	(0.0515)	(0.0431)
	[-0.0236, 0.1781]	[-0.0221, 0.1470]
FSZE	-0.3749**	-0.5359***

Variable	Model 7.1A	Model 7.1B
	(0.1644)	(0.1399)
	[-0.6966, -0.0523]	[-0.8101, -0.2618]
LRTAS	0.0611	0.0695
	(0.0481)	(0.0526)
	[-0.0332, 0.1554]	[-0.0335, 0.1726]
LAGE	-0.6025*	-0.0388
	(0.3195)	(0.2097)
	[-1.2288, 0.0237]	[-0.4498, 0.4069]
_cons	7.7840***	6.8887***
	(1.6868)	(1.2863)
	[4.4778, 11.0902]	[4.3676, 9.4098]

Model Statistics:

Statistic	Model 7.1A	Model 7.1B
Observations	476	477
Number of groups	40	40
Obs per group (min/avg/max)	10/11.9/12	10/11.925/12
Number of instruments	95	95
Wald χ^2	309.42	530.41
Prob > χ^2	0.0000	0.0000

Diagnostic Tests:

Test	Model 7.1A	Model 7.1B
AR(1) test (z-stat)	-2.87	-3.61

Test	Model 7.1A	Model 7.1B
AR(1) Prob > z	0.004	0.0003
AR(2) test (z-stat)	-1.28	0.61
AR(2) Prob > z	0.898	0.5400

Notes:

- Robust standard errors in parentheses, 95% confidence intervals in brackets
- *** p<0.01, ** p<0.05, * p<0.10
- Two-step system GMM estimation with robust standard errors
- H₀: No autocorrelation in first-differenced errors (AR test)
- Model 7.1A: Family ownership moderation effects (FAMO × governance variables)
- Model 7.1B: Family board representation moderation effects (FAMB × governance variables)
- All models use GMM-type instruments for lagged dependent variable and standard instruments for regressors

Table 7.1C: Combined Family Ownership-Board Interactions

Variable	Model 7.1C
	FAMO × FAMB
	Interactions

Variable	Model 7.1C
Main Effects	
LBOTD (L1)	0.0549
	(0.0837)
	[-0.1079, 0.2177]
Combined Family Interactions	
FAMO_FAMBBIND	0.0000**
	(0.0001)
	[0.000005, 0.0005]
FAMO_FAMBLBSZE	-0.0005
	(0.0005)
	[-0.0016, 0.0005]
FAMO_FAMBFEXB	-1.13e-06
	(0.0000)
	[-0.00003, 0.00002]
FAMO_FAMBFBRD	3.28e-06
	(0.0000)
	[-0.00005, 0.00005]
FAMO_FAMBRTP	0.0018**
	(0.0009)
	[0.0001, 0.0035]
FAMO_FAMBRCIN	-0.0001

Variable	Model 7.1C
	(0.0005)
	[-0.0011, 0.0010]
FAMO_FAMBRCSZ	-0.0001
	(0.0002)
	[-0.0004, 0.0002]
FAMO_FAMBFMRC	-0.0000
	(0.0008)
	[-0.0017, 0.0016]
FAMO_FAMBAUSZ	-0.0000
	(0.0001)
	[-0.0003, 0.0002]
FAMO_FAMBAUCH	0.0000
	(0.0004)
	[-0.0003, 0.0011]
FAMO_FAMBAUDR	-0.0008
	(0.0005)
	[-0.0018, 0.0002]
FAMO_FAMBBIG4	0.0002
	(0.0003)
	[-0.0004, 0.0007]
FAMO_FAMBFDAC	-0.0011

Variable	Model 7.1C
	(0.0008)
	[-0.0027, 0.0005]
Control Variables	
LLVRG	0.1122
	(0.0691)
	[-0.0233, 0.2477]
FSZE	-0.9634*
	(0.5504)
	[-2.0421, 0.1154]
LRTAS	0.0903
	(0.0660)
	[-0.0403, 0.2208]
LAGE	-0.3435
	(0.3317)
	[-0.9937, 0.3066]
_cons	11.7224**
	(5.4681)
	[1.0051, 22.4397]

Model Statistics:

- Observations: 478
- Number of groups: 40

- Observations per group: min = 10, avg = 11.95, max = 12
- Number of instruments: 95
- Wald $\chi^2(18)$: 205.48
- Prob > χ^2 : 0.0000

Diagnostic Tests:

- Arellano-Bond test for AR(1): z = -3.42, Prob > z = 0.0006
- Arellano-Bond test for AR(2): z = 0.36, Prob > z = 0.7195

Notes:

- Robust standard errors in parentheses, 95% confidence intervals in brackets
- *** p<0.01, ** p<0.05, * p<0.10
- Two-step system GMM estimation with robust standard errors
- H₀: No autocorrelation in first-differenced errors (AR test)
- Model tests combined effects of family ownership and board representation
- FAMO_FAMB variables represent interaction terms between family ownership and board variables
- All models use GMM-type instruments for lagged dependent variable and standard instruments for regressors

Table 7.2A-B: Family Ownership vs Family Board Moderation of Individual Board Characteristics

Variable	Model 7.2A	Model 7.2B
	Family Ownership	Family Board
	Board Moderation	Board Moderation
Main Effects		
LBOTD (L1)	0.1159***	0.1201**
	(0.0319)	(0.0423)
Board Characteristic Interactions		
FAMOBIND/FAMBBIND	0.0004***	0.0010**
	(0.0001)	(0.0002)
FAMOLBSZE/FAMBLBSZE	-0.0111**	-0.0140
	(0.0044)	(0.0087)
FAMOFEXB/FAMBFEXB	-0.0002*	-0.0001
	(0.0001)	(0.0001)
FAMOFBRD/FAMBFBRD	0.0000	-0.0004
	(0.0002)	(0.0003)
Control Variables		
LLVRG	0.1097**	0.1003**

Variable	Model 7.2A	Model 7.2B
	(0.0415)	(0.0370)
FSZE	-0.4929	-0.4488***
	(0.3016)	(0.1123)
LRTAS	0.0128	0.0442
	(0.0384)	(0.0280)
LAGE	-0.1767*	-0.0949
	(0.0931)	(0.1094)
_cons	7.0472**	6.4837***
	(2.6116)	(1.0367)

Model Statistics	Model 7.2A	Model 7.2B
Observations	477	477
Number of groups	40	40
Wald $\chi^2(9)$	210.58***	179.52***
AR(1) test p-value	0.0001	0.0001
AR(2) test p-value	0.447	0.483

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10. Two-step system GMM estimation focusing on individual board characteristics. See Appendix Tables A7.2A-B for complete statistical details including confidence intervals and full diagnostic tests.

Table A7.2C: Combined Family Ownership-Board Interactions with Individual Board Characteristics (Complete Details)

Variable	Coefficient	[95% Conf. Interval]
Dependent Variable: LBOTD		
Main Effects		
LBOTD (L1)	0.0878**	[0.0151, 0.1606]
	(0.0371)	
Combined Family Board Interactions		
FAMO_FAMBLBSZE	-0.0003*	[-0.0007, 0.0000]
	(0.0002)	
FAMO_FAMBBIND	0.0000**	[4.13e-06, 0.00003]
	(6.10e-06)	
FAMO_FAMBFEXB	-6.97e-06	[-0.00002, 4.77e-06]
	(5.99e-06)	
FAMO_FAMBFBRD	-0.0000	[-0.00004, 9.11e-06]

Variable	Coefficient	[95% Conf. Interval]
	(0.0000)	
Control Variables		
LLVRG	0.0583*	[-0.0060, 0.1228]
	(0.0328)	
FSZE	-0.4476***	[-0.6649, -0.2303]
	(0.1109)	
LRTAS	0.0235	[-0.0351, 0.0822]
	(0.0299)	
LAGE	-0.2662**	[-0.5272, -0.0053]
	(0.1332)	
_cons	7.0858***	[5.4269, 8.7446]
	(0.8464)	

Model Statistics:

- Observations: 478
- Number of groups: 40
- Observations per group: min = 10, avg = 11.95, max = 12
- Number of instruments: 86
- Wald $\chi^2(9)$: 123.31
- Prob > χ^2 : 0.0000

Diagnostic Tests:

- Arellano-Bond test for AR(1): z = -3.76, Prob > z = 0.0002
- Arellano-Bond test for AR(2): z = 0.49, Prob > z = 0.6254

Notes:

- Robust standard errors in parentheses, 95% confidence intervals in brackets
- *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$
- Two-step system GMM estimation with robust standard errors
- H_0 : No autocorrelation in first-differenced errors (AR test)
- Model tests combined effects of family ownership and board representation on individual board characteristics
- FAMO_FAMB variables represent interaction terms between family ownership and board variables
- Instruments for differenced equation: GMM-type L(2/.)LBOTD, Standard D.FAMO_FAMBLBSIZE through D.LAGE
- Instruments for level equation: GMM-type LD.LBOTD, Standard _cons