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The integrity of a tax system as a governing tool

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Abstract

Using an analytical frame informed by Michel Foucault's ideas of governmentality and disciplinary power, this article analyses the concept of the integrity of the tax system, as it is articulated in the *Tax Administration Act 1994* (NZ) and interpreted by the New Zealand tax authorities. The article identifies deficiencies in the concept and its current interpretation, and suggests recasting it as a balance between equity and efficiency principles, and supporting it by a concept of an integrity duty, which is defined as a combination of the shared and individual responsibilities of all of the participants in the taxation process. It also suggests using this concept as a moral framework only, thereby transforming it into an effective governing tool.

Keywords: integrity, taxation system, governance, compliance

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1. INTRODUCTION

Technological progress has been beneficial to many economic actors and in many ways, one of which has been equipping tax administrators with tools that allow them to collect more taxpayer data and analyse it more comprehensively. Given the current speed of automation, natural systems integration and artificial intelligence (AI) adoption by the New Zealand tax authorities, tax compliance will soon become automated rather than 'voluntary'. This will make it more difficult for taxpayers to not comply, especially for individuals and standalone entities that cannot shift profits overseas or benefit from the low rates offered by some tax jurisdictions. As non-compliance with taxes becomes less of an issue, it would seem fair to assume that the integrity of New Zealand's tax system will be better protected. However, this is questionable, given that such a view is predicated on the mistaken belief that the system's integrity largely relies on voluntary tax compliance.

This article argues that, while in the 21st century we need to focus on the integrity of the tax system more than ever, this should be done from the perspective of the shared and individual responsibilities of all of the participants in the taxation process. Looked at from this angle, while the 'digital transformation' has empowered New Zealand's tax authorities, it has yet to result in any enhanced protection of the rights of taxpayers and tax intermediaries.[1] To achieve this, more emphasis needs to be placed on the tax authorities and other government agencies complying with their obligations to respect the fundamental, constitutional and tax-specific rights of taxpayers.

Integrity is a quality and cannot therefore be the end in itself. Rather, the integrity of the tax system operates as a means – begging the question: to what end? This article goes towards answering this by examining the intended role and subsequent implementation of tax system integrity in New Zealand. For while it was originally introduced as a tool to govern both taxpayers and the tax authorities, in practice it has become a tool that not only largely governs taxpayers, but also prevents them from accessing information, thereby protecting the tax administration's lack of transparency. This article suggests that the concept of integrity should return to its original focus and extend it to all of the participants in the taxation process, the legislature and judiciary, and uses Foucault's ideas of governmentality and the interplay between sovereign power and disciplinary power to explain what needs to be done to make it an effective tool.

Foucault's work is worth considering here, because it not only offers an explanation of the mechanics of governance, but, within this, shows how the promotion of integrity in a tax system can be an effective governing tool. As a historian and philosopher, Michel Foucault drew on historical examples in many of his influential works; in particular, examining the phenomenon of power and its operation in various institutional settings. Foucault did not develop a theory in the conventional sense, though. Instead, he offered unconventional ways of 'approaching problems and ordering material'.[2] Foucault wished his work to be used as a 'toolkit',[3] which is exactly how his ideas are employed

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[1] Adrian Sawyer, 'Enhancing Taxpayers' Rights in New Zealand – An Opportunity Missed?' (2020) 18(2) *eJournal of Tax Research* 441.
[2] Gibson Burrell, 'Modernism, Post Modernism and Organizational Analysis 2: The Contribution of Michel Foucault' (1988) 9(2) *Organization Studies* 221, 221.
[3] See Michel Foucault, 'Powers and Strategies' in Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, ed Colin Gordon, tr Colin Gordon et al (Pantheon, 1980) 134, 145. See also Ben Golder and Peter Fitzpatrick, *Foucault's Law* (Routledge, 2009) 5.

in this article. As '[i]t should not be assumed that Foucault's writings are fully coherent to the Anglo-American eye',[4] appreciating his ideas involves a reliance on both Foucault's original writings and their interpretations by others.

The remainder of this article is structured as follows. An outline of the meanings of integrity in various contexts (section 2) is followed by a textual analysis of the concept of the integrity of the tax system as it is used in the *Tax Administration Act 1994* (NZ) and by New Zealand's tax authorities, and an explanation of how this use falls into Foucault's concept of governmentality (section 3). The governing potential of the concept of the integrity of the tax system is then explained from Foucault's perspective of power over people (section 4), before the meaning of the concept is reimagined to make it an effective governing tool (section 5), and suggestions for tax reform made (section 6).

2. INTEGRITY IN VARIOUS CONTEXTS

In his analysis of the concept 'integrity', as defined in the *Oxford English Dictionary* and its French equivalent, *Le Grand*, British philosopher Alan Montefiore has observed that, in addition to wholeness, this term refers to a certain original state of perfection or purity, an uncorrupted 'whole' with a moral value, which, when applied to a person, is also associated with honesty and probity.[5]

In institutional contexts, references to integrity are vast and various in meaning and applications. Common examples are the structural integrity of formal and informal organisations,[6] integrity in public decision-making,[7] integrity as a factor of organisational trustworthiness,[8] and institutional integrity.[9] In the socio-legal context, integrity is viewed a standard established in various spheres of social interaction.[10] Scholars of international law refer to integrity as a quality of international public law,[11]

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[4] Burrell, above n 2, 222.

[5] Alan Montefiore, 'Integrity: A Philosopher's Introduction' in Alan Montefiore and David Vines (eds), *Integrity in the Public and Private Domains* (Routledge, 1999) 2, 6-7. See also Emmanuel K Nartey, 'Neurological Aspect of Ethics and Integrity: A Fundamental Compound Element of Law and Tax Compliance' (2023) 9(2) *Athens Journal of Law* 245, 252-253.

[6] David Krackhardt, 'Assessing the Political Landscape: Structure, Cognition, and Power in Organizations' (1990) 35(2) *Administrative Science Quarterly* 342; James H Fowler, 'Connecting the Congress: A Study of Cosponsorship Networks' (2006) 14(4) *Political Analysis* 456; John T Scholz, Ramiro Berardo and Brad Kile, 'Do Networks Solve Collective Action Problems? Credibility, Search, and Collaboration' (2008) 70(2) *Journal of Politics* 393; Matt Grossmann and Casey BK Dominguez, 'Party Coalitions and Interest Group Networks' (2009) 37(5) *American Politics Research* 767; Philip Leifeld and Volker Schneider, 'Information Exchange in Policy Networks' (2012) 56(3) *American Journal of Political Science* 731.

[7] Organisation for Economic Co-operation and Development (OECD), *Preventing Policy Capture: Integrity in Public Decision Making* (OECD Publishing, 2017).

[8] This integrity is associated with legal compliance and procedural fairness. See Cam Caldwell and Stephen E Clapham, 'Organizational Trustworthiness: An International Perspective' (2003) 47(4) *Journal of Business Ethics* 349.

[9] Institutional integrity together with minimum moral acceptability and comparative benefits are viewed as substantive criteria of normative legitimacy of international institutions. See Allen Buchanan and Robert O Keohane, 'The Legitimacy of Global Governance Institutions' (2006) 20(4) *Ethics and International Affairs* 405, 419-423.

[10] Chris Thornhill, 'The Sociology of Constitutions' (2017) 13 *Annual Review of Law and Social Science* 493, 499.

[11] Sergio André Rocha, 'Countries' Aggressive Tax Treaty Planning: Brazil's Case' (2016) 44(4) *Intertax* 334, 338: 'The integrity of International Public Law rests on two main principles: *pacta sunt servanda* and good faith'.

'procedural integrity' in law as 'an important source of authority and legitimacy for international law',[12] systemic integrity as one of demands of the rule of law,[13] or the integrity as a criterion of acting in 'good faith'.[14] All of these meanings and applications of integrity have several things in common. First, they all create positive connotations, either about integrity itself or about objects or subjects that have integrity. Second, they use the word 'integrity' to describe a quality of an object or a subject, or a standard for the evaluation of such a quality.

Tax scholarship has also embraced the concept of integrity and in the similar vein – as a positive quality that should be preserved and protected. With the exception of the unorthodox view of integrity as a basis for a state's duty to cooperate in international tax issues,[15] integrity is usually viewed as a quality of an object. The object, however, varies. In addition to the most common association of integrity with the national tax system, which is discussed later, in the tax context the objects that have integrity include, among others: the single market; personal income tax; corporate income tax; income tax generally; a national tax system (in the international context); the international tax system; the international order; a tax treaty; the system of residence-based taxation; tax policy; the tax dispute resolution process; and the private rulings system. In these contexts, references to integrity are invoked either to highlight a specific risk to an object's integrity, or to promote a specific policy instrument or legal rule because of its positive impact on the object's integrity.

Risk-focused arguments, in particular, refer to the following risks and their integrity-related impacts: 1) deteriorating compliance puts the integrity of corporate income tax at risk;[16] 2) cross-border profit shifting puts at risk both the integrity of corporate income tax[17] and the integrity of the international tax system;[18] 3) harmful tax competition undermines taxpayer confidence in the integrity of national tax systems;[19] 4) tax havens undermine the integrity of tax policy,[20] and 5) the challenges of the digitalisation of the global economy put the integrity of the international order at risk.[21]

References to integrity are invoked in tax contexts to promote: 1) the common system of a digital services tax in the European Union because it protects the integrity of the

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[12] David A Wirth, 'Reexamining Decision-Making Processes in International Environmental Law' (1994) 79(4) *Iowa Law Review* 769, 798 (footnote omitted).
[13] Jeremy Waldron, 'The Concept and the Rule of Law' (2008) 43(1) *Georgia Law Review* 1.
[14] Helmut Becker and Felix Würm, 'Double-Taxation Conventions and the Conflict between International Agreements and Subsequent Domestic Laws' (1988) 16(8/9) *Intertax* 257, 261, 262-263.
[15] Allison Christians and Tarcísio Diniz Magalhães, '17 Ways to Regulate BigTech with Tax' (2024) 78(1) *The Tax Lawyer* 1.
[16] Thomas G Vitez, 'Information Reporting and Withholding as Stimulants of Voluntary Compliance' in Phillip Sawicki (ed), *Income Tax Compliance: A Report of the ABA Section of Taxation Invitational Conference on Income Tax Compliance* (American Bar Association, 1983) 191. Michael Webb, 'Defining the Boundaries of Legitimate State Practice: Norms, Transnational Actors and the OECD's Project on Harmful Tax Competition' (2004) 11(4) *Review of International Political Economy* 787, 808.
[17] OECD, *Addressing Base Erosion and Profit Shifting* (OECD Publishing, 2013) 10.
[18] Chris Evans and Sally-Ann Joseph, 'General Report' in Chris Evans, Michael Lang, Alexander Rust, Josef Schuch, Claus Staringer and Pasquale Pistone (eds), *Improving Tax Compliance in a Globalized World* (IBFD Publications, 2018) 3, 39.
[19] OECD, *Harmful Tax Competition: An Emerging Global Issue* (OECD Publishing, 1998) 8, [4].
[20] Wolfgang Schön, 'Neutrality and Territoriality – Competing or Converging Concepts in European Tax Law?' (2015) 69(4/5) *Bulletin for International Taxation* 271.
[21] Julien Chaisse and Irma Mosquera, 'Public International Law, International Taxation and Tax Dispute Resolution' (2023) 31(1) *Asia Pacific Law Review* 192, 192.

single market;[22] 2) a destination-based cash-flow tax because of its potential to protect the integrity of personal income tax;[23] 3) 'the inclusion [by a residence state] in the tax base of all income earned abroad by its residents and subjection of that income to national standards of tax equity' because it protects income tax integrity generally;[24] 4) 'the existing system of double tax relief' because it allows the maintenance of the 'territorial integrity of differing national tax systems';[25] 5) an effective application of the mutual agreement procedure that maintains the integrity of tax treaties because it ensures 'that any disputes concerning the application of anti-abuse rules will be resolved according to internationally accepted principles',[26] and 6) the sharing of relevant tax information by nation states 'to maintain the integrity of residence-based taxation'.[27]

By highlighting these risks or benefits, those who use references to the integrity in tax contexts are seeking, in more or less direct ways, to facilitate or discourage a specific action or behaviour. The examples given above are only a fraction of the arguments where integrity is used for instrumental purposes in tax contexts.

References to the integrity of the tax system also abound, and their contexts are similarly wide-ranging and diverse. However, these references are also structured either along the 'risk line' or the 'benefits line'. For instance, some mention integrity in the context of tax competition for foreign direct investment;[28] others express concerns that the integrity of the tax system could be undermined by the non-complying tax behaviour of high-net-worth individuals,[29] or suggest that the difference between top marginal tax rates for individuals and the corporate income tax rate 'could endanger tax integrity by encouraging wealthy individuals to shift income to corporate entities to reduce their tax liabilities';[30] or emphasise that opportunities for tax avoidance or minimisation may arise as a result of 'the interaction of the systems for taxing companies, trusts, and individuals', or, more precisely, because of the tax-driven choices of business entities.[31] Conversely, it has also been suggested that using digital delivery will 'enhance the integrity of tax systems',[32] or, more generally, that the effective use of technology can

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[22] European Commission, *Commission Staff Working Document: Impact Assessment Accompanying the Document Proposal for a Council Directive Laying Down Rules Relating to the Corporate Taxation of a Significant Digital Presence and Proposal for a Council Directive on the Common System of a Digital Services Tax on Revenues Resulting from the Provision of Certain Digital Services*, SWD(2018) 81 final/2 (21 March 2018) 22, 44, 48, 80-81 and 98.

[23] Wei Cui, 'Destination-Based Cash-Flow Taxation: A Critical Appraisal' (2017) 67(3) *University of Toronto Law Journal* 301.

[24] Peggy B Musgrave, 'Combining Fiscal Sovereignty and Coordination: National Taxation in a Globalizing World' in Inge Kaul and Pedro Conceição (eds), *The New Public Finance: Responding to Global Challenges* (Oxford University Press for the United Nations Development Programme, 2006) 167, 170-171.

[25] Michael J Graetz, *Foundations of International Income Taxation* (Foundation Press, 2003) 217-219.

[26] United Nations, *United Nations Manual for the Negotiation of Bilateral Tax Treaties between Developed and Developing Countries 2019* (2019) [791].

[27] Allison Christians, 'A Global Perspective on Citizenship-Based Taxation' (2017) 38(2) *Michigan Journal of International Law* 193, 234.

[28] Thomas Rixen, 'Bilateralism or Multilateralism? The Political Economy of Avoiding International Double Taxation' (2010) 16(4) *European Journal of International Relations* 589.

[29] OECD, *Engaging with High Net Worth Individuals on Tax Compliance* (OECD Publishing, 2009) 9 and 16.

[30] OECD, *OECD Economic Surveys: New Zealand 2022* (OECD Publishing, 2022) 53.

[31] Tax Working Group, 'Terms of Reference: Tax Working Group' (23 November 2017) <https://taxworkinggroup.govt.nz/resources/terms-reference-tax-working-group>.

[32] OECD, *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD Publishing, 2017) 163-168.

create 'greater taxpayer confidence in the integrity of the tax system',[33] 'simplify the process of paying taxes and help increase the integrity of the tax system by reducing opportunities for corruption'.[34] Similarly, it is mooted that a standard for the Automatic Exchange of Financial Account Information in Tax Matters will help in the 'fight against tax evasion and in protecting the integrity of tax systems'.[35]

From the examples discussed in this section, it follows that a tax system that has integrity is more valuable than one that does not have integrity. Integrity is viewed as a valuable quality that needs to be maintained, enhanced and protected. There is, however, no policy or scholarship explanation of the merits and the meaning of such integrity. The next section explains how these general observations play out in the New Zealand tax context.

3. THE INTEGRITY OF THE TAX SYSTEM: NEW ZEALAND'S APPROACH

In the New Zealand tax context, references to the integrity of the tax system fall into three domains: 1) a moral framework guiding behaviour; 2) the purpose of collection of revenue information, and 3) a reason that relieves the Commissioner of Inland Revenue from the legal requirement to disclose an item of revenue information. These references are part of the process termed 'governmentality'.

3.1 The integrity of the tax system as a moral framework

Under the *Tax Administration Act 1994* (NZ), every member of a government agency that is involved in the collection of tax and performs other functions under the Inland Revenue Acts 'must at all times use their best endeavours to protect the integrity of the tax system'.[36] This statement is clearly structured along the 'risk line'.

The meaning of the 'integrity of the tax system' includes:[37]

'(a) the public perception of that integrity; and

(b) the rights of persons to have their liability determined fairly, impartially, and according to law; and

(c) the rights of persons to have their individual affairs kept confidential and treated with no greater or lesser favour than the tax affairs of other persons; and

(d) the responsibilities of persons to comply with the law;

[33] OECD, *The Changing Tax Compliance Environment and the Role of Audit* (OECD Publishing, 2017) 43.
[34] OECD, *Tax Morale: What Drives People and Businesses to Pay Tax?* (OECD Publishing, 2019) 22 ('*Tax Morale*'), citing Richard M Bird and Eric M Zolt, 'Technology and Taxation in Developing Countries: From Hand to Mouse' (UCLA School of Law, Law-Econ Research Paper No 08-07, 2008).
[35] OECD, *Standard for Automatic Exchange of Financial Account Information in Tax Matters* (2nd ed, OECD Publishing, 2017) 9 and 315. Along this line is the discussion of 'tax integrity risks' of clients of financial institutions, ie, their likelihood of engagement in tax avoidance and evasion IFA, Summary of Proceedings of the 2019 London Congress. Seminar I: Recent developments in international taxation, at 60-61.
[36] *Tax Administration Act 1994* (NZ) s 6(1).
[37] Ibid s 6(2).

(e) the responsibilities of those administering the law to maintain the confidentiality of the affairs of persons; and

(f) the responsibilities of those administering the law to do so fairly, impartially, and according to law.'

This definition sets a moral framework, but in an unclear way. The integrity of the tax system is a quality of the system, and yet, instead of outlining the criteria of the system, the existing legal definition refers to public perception, the rights and responsibilities of persons, and the responsibilities of tax administrators.

In stating that it is Inland Revenue's obligation to protect the integrity of the tax system and manage public perception, the focus is shifted from responsibilities being shared by taxpayers and tax administrators to Inland Revenue having power over taxpayers. This is antagonising and counterproductive, as it by default puts all taxpayers under suspicion of potentially violating the integrity of the tax system and falsely assumes that Inland Revenue can manage people's perceptions. While perceptions can certainly be influenced, the degree of this influence and the role of each influencing factor and their combination are unknown and difficult to predict.

In its most common usage, a perception is 'becoming aware of physical objects, phenomena, etc, through the senses' or 'an intuitive insight; an understanding'.[38] It is therefore a product of consciousness, which, in turn, is influenced by many factors and through many senses. Inland Revenue can contribute to this influence. By communicating its expectations about what is right and what is wrong, including reporting cases of prosecution, Inland Revenue creates information that can pass through humans' senses. However, the extent to which this information passes and affects the perceptions of individual people is unknown, and cannot be measured. Therefore, a belief that Inland Revenue can *manage* perceptions is misleading.

In its Statement of Intent 2021-25, Inland Revenue refers to its role as a steward of the integrity of the revenue system and links it to voluntary tax compliance, which it seeks to encourage by creating and maintaining positive beliefs among taxpayers about tax liability and Inland Revenue.[39] Inland Revenue protects the integrity of the revenue system by 'helping customers get things right as well as correcting them when they get it wrong', and to do this it looks 'at everything from policy settings, the design of products and services, the advice and education we provide, through to how and when

[38] *Oxford English Dictionary* (online) <https://www.oed.com/dictionary/perception_n?tab=meaning_and_use> (accessed 26 November 2025).

[39] Inland Revenue, 'Statement of Intent 2021-25' (last updated 25 November 2021) <https://www.ird.govt.nz/about-us/publications/annual-corporate-reports/statement-of-intent/statement-of-intent-2021-25/what-we-want-to-achieve/our-strategic-intentions/ensuring-trust-in-and-the-integrity-of-the-revenue-system> ('Statement of Intent 2021-25'):

'So that New Zealanders continue to provide us with accurate information, pay their taxes, and claim only what they are entitled to, it's important they believe:

- When I pay my tax, I'm doing a good thing (and that's what people like me do).
- When I'm trying to do the right things, Inland Revenue will help me.
- When someone else is trying to do the wrong thing, Inland Revenue will find them'.

we enforce the law'.[40] The same sentiment is expressed in Inland Revenue Statement of Intent 2024-28.[41]

The effectiveness of Inland Revenue's management of the public's perception of the integrity of the tax system is measured by instruments that make little sense.[42] Inland Revenue refers to 'integrity indicators' that show how it is protecting the integrity of the tax and social policy system.[43] However, instead of clearly establishing exactly what these indicators are, it outlines the results of the Customer Satisfaction and Perceptions Survey, and refers to the Public Sector Reputation Index. None of these criteria is related to the integrity of the tax system, nor to how people perceive it. Certainly it is possible to suggest that the satisfactory experience of taxpayers from their interactions with tax authorities may contribute to their positive perceptions of (and trust in) these tax authorities. However, it may or may not affect their perception of, and the trust in, the actual tax system or the government. According to the OECD, 'perceptions about public service delivery, and integrity … account for about 40% of differences in trust in government, but there are significant variations between countries'.[44] Despite high trust in public services, trust in the government is low in New Zealand. But while the possibility of accurately measuring public perceptions of the tax system should not be ruled out,[45] whether it will be measuring the system's integrity or Inland Revenue's actions to protect its integrity remains open for discussion.

Also, the *Tax Administration Act 1994* mentions the integrity of the *tax system*, whereas Inland Revenue refers to the integrity of the *tax and social policy system*[46] as well as the integrity of the *revenue system*.[47] There is also 'revenue integrity',[48] but the line between all of these concepts is far from clear. Revenue integrity has been recently conceptualised as 'the extent to which the tax system is coherent and sustainable over time and minimises opportunities for tax avoidance and tax evasion',[49] a definition that

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[40] Ibid.
[41] Inland Revenue, 'Statement of Intent 2024-28' (2024) 11 <https://www.ird.govt.nz/-/media/project/ir/home/documents/about-us/publications/annual-and-corporate-reports/statement-of-intent/statement-of-intent-2024---2028.pdf?modified=20250114000956>.
[42] Jeremy Beckham, 'Inland Revenue's Strategic and Regulatory Management of Tax System Integrity and Taxpayer Perceptions' (2018) 33(4) *Australian Tax Forum* 701, 743-745. See also, on performance measurement, Victoria Plekhanova, 'Transparency, Trust, Transnationality, and Tax Compliance: Lessons from Google's Financial Reporting Practices in New Zealand' (2025) 73(2) *Canadian Tax Journal* 269, 279-280 ('Transparency, Trust, Transnationality, and Tax Compliance').
[43] Inland Revenue, 'Our Integrity – Protecting the Integrity of the Tax and Social Policy System' (last updated 2 November 2021) <https://www.ird.govt.nz/about-us/publications/annual-corporate-reports/annual-report/annual-report-2021/our-performance/our-integrity> ('Our Integrity').
[44] OECD, *Tax Morale*, above n 34, 31, citing F Murtin et al, 'Trust and Its Determinants: Evidence from the Trustlab Experiment' (OECD Statistics Working Paper No 2018/2, 2018).
[45] Lin Mei Tan, 'Taxpayers' Perceptions of Fairness of the Tax System – A Preliminary Study' (1998) 4 *New Zealand Journal of Taxation Law and Policy* 59.
[46] Inland Revenue, 'Our Integrity', above n 43. Inland Revenue, 'Statement of Intent 2024-28', above n 41, 8 and 10.
[47] Inland Revenue, 'Statement of Intent 2021-25', above n 39; Inland Revenue, 'Addressing Integrity Risks' <https://www.ird.govt.nz/about-us/publications/annual-corporate-reports/statement-of-intent/statement-of-intent-2024-28/what-we-want-to-achieve/addressing-integrity-risks> ('Addressing Integrity Risks').
[48] Victoria University of Wellington Tax Working Group (Professor Bob Buckle, chair), *A Tax System for New Zealand's Future: Report of the Victoria University of Wellington Tax Working Group* (Centre for Accounting, Governance and Taxation Research, Victoria University of Wellington, January 2010) 15 <http://www.victoria.ac.nz/sacl/cagtr/twg/report>.
[49] *Taxation Principles Reporting Act 2023* (NZ): repealed, on 23 December 2023, by section 4 of the *Taxation Principles Reporting Act Repeal Act 2023* (NZ) (2023 No 70) sch 1, s 2. See also Inland Revenue,

mixes revenue integrity and tax system integrity. One would assume that revenue integrity is about a non-eroded tax base, whereas tax system integrity is about the coherence of its structure.

According to Inland Revenue, the integrity of the *revenue system* is maintained 'through encouraging high levels of voluntary compliance'.[50] However, this narrow focus has been criticised by tax scholars[51] because of its misalignment with the Richardson Committee report of 1994 – the document that drew attention to taxpayer perceptions of the integrity of the tax system and provided a normative basis for tax administration reform. The report acknowledged the link between voluntary compliance and taxpayer perceptions of the integrity of the tax system, but also emphasised that such perceptions 'are tightly linked to the impartial application of the law and the exercise of the administration's coercive powers and decision making powers with respect to the affairs of individual taxpayers', and suggested that in is in the interest of tax administrators to 'protect the constitutional rights of taxpayers as individuals'.[52] In other words, the integrity of a tax system in its original meaning was aimed at governing not only taxpayers but also tax administrators.

3.2 Instrumental references to the integrity of the tax system

In addition to a legal definition of the integrity of the tax system, which sets a moral framework for expected behaviour, the *Tax Administration Act 1994* contains two references to the integrity of the tax system that appear to be instrumental and separate from the moral framework. Namely, protecting the integrity of New Zealand's tax system is one of the purposes of collecting revenue information,[53] and also operating as a rationale for the Commissioner of Inland Revenue maintaining the confidentiality of revenue information even when such information does not fall within the scope of sensitive revenue information[54] that should therefore be protected.[55] The Commissioner of Inland Revenue is not required to disclose any item of revenue information if the release of the information would adversely affect the integrity of the tax system or prejudice the maintenance of the law.[56]

Generally, the disclosure of sensitive revenue information that is made in carrying into effect revenue laws should meet two criteria.[57] First, the disclosure is required to carry out or support a function lawfully conferred on the Commissioner to administer the tax system, to implement the tax system, or to improve, research or reform the tax system.[58]

'Regulatory Impact Statement: A Reporting Framework Informed by Tax Principles. Coversheet' (26 April 2023) [36] <https://www.taxpolicy.ird.govt.nz/-/media/project/ir/tp/publications/2023/2023-ria-pack-tax-principles-bill/2023-ria-pack-tax-principles-bill-pdf.pdf?modified=20240312033222&modified=20240312033222>.

[50] Inland Revenue, 'Addressing Integrity Risks', above n 47.

[51] Beckham, above n 42. See also Valerie Braithwaite, 'Tax System Integrity and Compliance: The Democratic Management of the Tax System' in Valerie Braithwaite (ed), *Taxing Democracy: Understanding Tax Avoidance and Evasion* (Ashgate Publishing, 2003) 271, 276.

[52] Organisational Review Committee (Sir Ivor Richardson, chair), *Organisational Review of the Inland Revenue Department: Report to the Minister of Revenue (and on tax policy, also to the Minister of Finance)* (1994) [15.1.4], Appendix D, [22]-[24].

[53] *Tax Administration Act 1994*, s 16B(1)(a).

[54] Ibid ss 18D to 18J and sch 7.

[55] Ibid s 18(3).

[56] Ibid.

[57] Ibid s 18D(1)(a).

[58] Ibid s 18D(1)(b).

Secondly, from the Commissioner's perspective the disclosure should be reasonable.[59] One criterion of this reasonableness is the connection between the revenue information and the Commissioner's obligation at all times to use best endeavours to protect the integrity of the tax system.[60]

The *Tax Administration Act 1994* allows the sharing of sensitive revenue information and other information among public and private agencies under approved agreements, and for international tax cooperation purposes.[61] This sharing is subject to the same general rule that authorises the Commissioner of Inland Revenue not to disclose any item of revenue information if its release would adversely affect the integrity of the tax system or prejudice the maintenance of the law.[62] However, this rule does not apply to other public or private agencies who share information with the Commissioner under sharing agreements. In other words, these agencies cannot refuse to share revenue information because doing so may undermine the integrity of the tax system.

Effectively, the reference to the integrity of the tax system is employed to justify an action (the sharing of information) which interferes with an individual's legal rights (the right to privacy and the right to confidentiality).

4. INTEGRITY THROUGH FOUCAULT'S LENS

The concept of the integrity of the tax system has much greater governing potential than is currently envisioned by the tax authorities and legislators in New Zealand. Foucault's ideas of power help to explain how this concept could govern all of the participants in the taxation process.

4.1 The governing potential of the concept of the integrity of the tax system

The integrity of a tax system can be a governing tool because it has a potential to persuade the audience to behave in a specific way. The mechanisms of such persuasion vary, as does the legal and non-legal 'technology' that is necessary for their success. Effective governance implies the compliance of those who are governed. An appreciation of the psychology of compliance and the mechanisms of power exercised over people will help in understanding how adherence to the integrity of a tax system can be effectively employed to govern all participants in the taxation process.

4.2 Psychology of compliance

At a very general level compliance is an act of obedience. As has been argued elsewhere, compliance is a social behaviour, and is driven by the desire to get a reward or avoid a punishment,[63] based, of course, on the assumption that the behaviour is rational. Rewards and punishment do not need to be material. Pure satisfaction with one's own actions or inactions can be rewarding; actions or inactions can also be rewarded by elevation in social status, or punished by exclusion from a social group.

In tax contexts, compliance is not always voluntary because a complying person does not always control the actions of third parties who, by way of law, can impact the

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[59] Ibid s 18D(1)(a) and (b).
[60] Ibid s 18D(1)(b)(i).
[61] Ibid ss 18E, 18F, and 18I.
[62] Ibid s 18(3).
[63] Plekhanova, 'Transparency, Trust, Transnationality, and Tax Compliance', above n 42.

complying person and this person's complying status. Examples of such 'involuntary compliance' include the use of withholding mechanisms for the collection of taxes or automated data collection that makes non-compliance difficult if not impossible.

Compliance also depends on transparency. If others can observe a person's behaviour, this transparency creates conditions for a social response, which could be a reward or a punishment, and makes it easy to invoke legal rules that penalise non-compliance. In the tax field, such transparency is limited by various legal rules or their absence, and it applies differently to different participants in the taxation process.[64] Lack of transparency is a factor contributing to the ineffectiveness of governing tools. This problem has been discussed elsewhere, along with some suggestions for addressing it.[65] This article's focus, however, is on issues that have not hitherto been discussed – the mechanics of government's power over people in a domestic tax context.[66]

In addition to clarity about the rule and its legal status, and some understanding of the accompanying potential rewards and punishments, compliance depends on the ability of the rule of law to reflect social values that are common in the political community where the rule is enacted and applied. It can therefore be argued that compliance is conditional on the ability of the legislature to follow social values, or at least stay in line with them. This alignment gives legal rules their 'sociological legitimacy', which in turn leads to obedience and compliance arising from respect for the rule (and the associated rewards for this respect or punishments for disrespect).[67] It is sociological legitimacy, rather than, as some have suggested, integrity, that 'gives individual value and confidence in decision making' and helps to 'mitigate cognitive biases'.[68]

Without this broader view on compliance, and understanding its links to social and moral values, and without a respect for the laws and principles upon which the tax system is based, this system will become corrupt. If the system's 'wholeness' is lost, trust in the system will erode, and the tax system will be unable to operate in accordance with its principles and achieve its purpose in the way it was intended. Trust encourages conditional cooperation,[69] which, at its deep social level, is what is known as 'positive reciprocity'.[70] The current tax system's existing measurement of trust falls short in assessing the various types of trust[71] and their effects on voluntary tax compliance or compliance with the rule of law generally. Nonetheless, it is clear that mutual trust is fundamental for the successful operation of a taxation process which relies on the cooperation of all participants. Although the role of trust in a system based on multi-

[64] Ibid 279-280.
[65] Ibid 274-276, 286-301, and 312-314.
[66] For a discussion of power to tax in cross-border tax contexts see Victoria Plekhanova, 'On Benefits of New Legal Realism for International Tax Scholarship' (2023) 14(3) *Transnational Legal Theory* 307.
[67] Victoria Plekhanova, 'The Legitimizing Effects of the OECD's Fairness-Based Narratives' (2022) 70(4) *Canadian Tax Journal* 785, 795 and 798 ('The Legitimizing Effects of the OECD's Fairness-Based Narratives').
[68] Nartey, above n 5, 260-261.
[69] Nartey has referred to laboratory experiments analysing public games that have recognised reciprocity as an important driver of behaviour and condition cooperation as a 'relatively stable type of social preference' and concluded that participants in a taxation process 'might conditionally be cooperative if they expect their peers to cooperate'. See Nartey, above n 5, 262.
[70] Victoria Plekhanova, 'Taxes Through the Reciprocity Lens' (2022) 70(2) *Canadian Tax Journal* 303, 310-312.
[71] Plekhanova, 'Transparency, Trust, Transnationality, and Tax Compliance', above n 42.

dimensional compliance needs to be thoroughly examined, this falls outside the scope of this article.

4.3 Government's power over people in a domestic tax context

Governing strategies as means of the exercising of power over people can be divided into coercive and persuasive, or a combination of both. Coercive strategies rely on enforcement mechanisms, whereas persuasive strategies employ de facto management techniques. Integrity, like many other morally loaded concepts, is foundational to a governing strategy that seeks to 'govern through freedom' or by creating a perception of a free choice. Such a strategy is persuasive and can be explained based on Foucault's views on power over people as it is exercised by government.

According to Foucault, government, at least in the Western world, permeates the whole of a society and operates through dispersed mechanisms of power, comprising both sovereign powers and disciplinary powers.[72]

> From the nineteenth century until the present day, we have then in modern societies, on the one hand, a legislation, a discourse, and an organization of public right articulated around the principle of the sovereignty of the social body and the delegation of individual sovereignty to the State; and we also have a tight grid of disciplinary coercions that actually guarantees the cohesion of that social body.
>
> Now that grid cannot in any way be transcribed in right, even though the two necessarily go together. A right of sovereignty and a mechanics of discipline. It is, I think, between these two limits that power is exercised.[73]

Sovereign power is a power of command; it is possessed, flows from the top to the bottom, and is 'primarily [coercive and] repressive'.[74] This is in line with Thomas Hobbes's views about law as a command of the sovereign and an expression of sovereign power.[75]

In contrast, disciplinary power is a power of training and self-control;[76] it is exercised rather than possessed, can flow from the bottom upwards, is conditioned by the discourse, and is productive,[77] as it 'produces the subjects who submitted to their own

[72] Michel Foucault, *'Society Must Be Defended': Lectures at the Collège de France 1975-1976*, ed Mauro Bertani and Alessandro Fontana, tr David Macey (Picador, 2003) 181 (*'Society Must Be Defended'*). See also Burrell, above n 2, 225.
[73] Foucault, *'Society Must Be Defended'*, above n 72, 37.
[74] Jana Sawicki, 'Foucault and Feminism: Toward a Politics of Difference' (1986) 1(2) *Hypatia* 23, 26. See also Michael Kelly, 'Foucault, Habermas, and the Self-Referentiality of Critique' in Michael Kelly (ed), *Critique and Power: Recasting the Foucault/Habermas Debate* (MIT Press, 1994) 365, 374.
[75] Hans Gribnau and Carl Dijkstra, 'Contractualism and Tax Governance: Hobbes and Hume' in Peter Harris and Dominic de Cogan (eds), *Studies in the History of Tax Law: Vol 9* (Hart Publishing, 2019) 17.
[76] 'Governmentality' in *Oxford Reference* (online) <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095901877>.
[77] Sawicki, above n 74, 26.

subjectivity'[78] or 'disciplined'. Such 'disciplining' concerns 'the formation of motives, desires, and character in individuals through techniques of the self'.[79]

The interaction between sovereign power and disciplinary power is complex, and this is reflected in the operation of laws and soft law instruments such as 'the techniques of discipline and discourses born of discipline'.[80] As Foucault himself put it:

> In our day, it is the fact that power is exercised through both [sovereign] right and disciplines, that the techniques of discipline and discourses born of discipline are invading [sovereign] right, and that normalizing procedures are increasingly colonizing the procedures of the law, that might explain the overall workings of what I would call a 'normalizing society'.[81]

Discipline, in Foucault's terms, comprises 'a whole set of instruments, techniques, procedures, levels of application, targets; it is a "physics" or an "anatomy" of power, a technology'.[82] He also refers to discipline as a 'specific technology of power' which 'produces reality', 'domains of objects and rituals of truth'.[83] 'The individual and the knowledge that may be gained of him belong to this production'.[84]

Disciplined individuals have acquired the 'habits, capacities, and skills that allow them to act in socially appropriate ways without the need for any exercise of external, coercive power'.[85] Disciplinary power is not individually possessed,[86] but can emerge as a result of discourse, history, norms and culture;[87] this power is 'floating in between the agents in the context'.[88] Disciplinary power reflects David Hume's philosophy where 'the role of the government is in the background' and a 'sense of the common good creates an unwritten convention' that should drive people and justify government's actions.[89]

> The discourse of discipline is alien to that of the law; it is alien to the discourse that makes rules a product of the will of the sovereign. The discourse of disciplines is about a rule: not a juridical rule derived from sovereignty, but a discourse about a natural rule, or in other words a norm. Disciplines will define not a code of law, but a code of normalization, and they will necessarily refer to a theoretical horizon that is not the edifice of law, but the field of the human sciences.[90]

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[78] Gerd Christensen, 'Three Concepts of Power: Foucault, Bourdieu, and Habermas' (2023) 16(2) *Power and Education* 182, 187, citing Kelly, above n 74, 374.
[79] 'Governmentality', above n 76.
[80] Foucault, *'Society Must Be Defended'*, above n 72, 38-39.
[81] Ibid.
[82] Michel Foucault, *Discipline and Punish: The Birth of the Prison*, tr Alan Sheridan) (2nd ed, Vintage Books, 1995) 215.
[83] Ibid 194.
[84] Ibid.
[85] 'Governmentality', above n 76.
[86] Foucault, *'Society Must Be Defended'*, above n 72, 29.
[87] Christensen, above n 78, 193.
[88] Ibid 194.
[89] Gribnau and Dijkstra, above n 75, 53.
[90] Foucault, *'Society Must Be Defended'*, above n 72, 38.

In other words, normalisation can be done by way of a narrative that seeks to resonate with the social or moral values shared by individuals.

Foucault conceptualises disciplinary power as 'located in the "micro-physics" of social life in the "depths" of society. Here, minute and diffuse power relations exist, always in tension, always in action'.[91] Disciplinary power 'is exercised through networks, and individuals do not simply circulate in those networks; they are in a position to both submit to and exercise this power'.[92] The individual is both a 'power-effect' and is a relay as 'power passes through the individuals it has constituted'. [93] As sociologist and organisational theorist Gibson Burrell explains:

> For Foucault, power does not reside in things, but in a network of relationships which are systematically interconnected. Disciplinary power should not be viewed as negative power. It is not a series of prohibitions delimiting, proscribing and discouraging activities of lower-order organizational members. Power should be seen in a positive sense as actively directed towards the body and its possibilities, converting it into something both useful and docile.[94]

Disciplinary power has four objectives: selection, normalisation, hierarchicalisation and centralisation.[95] These objectives could also be viewed as 'techniques of constraint' that are different to those that law or sovereign power generally implements.[96] Also, from Foucault's perspective 'organizational superordinates do not create discipline through their actions or strategies. On the contrary, they are as much disciplined as their subordinates'.[97]

4.4 The integrity of a tax system through Foucault's lens

As follows from section 3 of this article, in New Zealand the conceptual multi-functionality of the integrity of the tax system – along with flaws in both the definition of the concept and the one-sided approach to protecting the integrity of the tax system – undermines the effectiveness of the concept as a governing tool. Therefore, for this concept to be able to govern, it should be reimagined to remove the flaws and extend an appeal to the integrity of the tax system to all participants in the taxation process. Every participant of the taxation process should be expected to respect this integrity and protect it from the misbehaviour of other participants. This means that every participant can and should act in the name of integrity, thereby establishing or maintaining a robust system of checks and balances that keeps everyone accountable for their actions and inactions in relation to the integrity of the tax system. At a more general level, this proposition fits into an argument that all of the participants in a domestic taxation process should be expected to share responsibility for the system functioning well.[98]

Foucault's approach to power helps to identify two additional flaws to those identified in section 3 of this article. First, the integrity of a tax system is not a legal or moral right,

[91] Burrell, above n 2, 228.
[92] Foucault, *'Society Must Be Defended'*, above n 72, 29.
[93] Ibid 30.
[94] Burrell, above n 2, 227.
[95] Foucault, *'Society Must Be Defended'*, above n 72, 181.
[96] Ibid 266.
[97] Burrell, above n 2, 227.
[98] This is in line with Gribnau's argument in Hans Gribnau, 'The Integrity of the Tax System after BEPS: A Shared Responsibility' (2017) 10(1) *Erasmus Law Review* 12.

nor is it a value in itself. The integrity of a tax system is a morally loaded concept that was selected by tax policymakers and normalised by way of law. The outcome of that process is the integrity of a tax system being presented as a 'norm'. This legal construct has attached a moral quality (integrity) to an object (a tax system). In so doing, tax policymakers and lawmakers have set a normative objective (the integrity of the tax system) to orient some actions and prevent other actions of taxpayers, or, in broader terms, to manage taxpayers and their expectations – or, in Foucault's terms, 'discipline' them. However, there is no explanation about the importance of the integrity of the tax system generally and its benefits to individual taxpayers. There is also no link between such integrity and the behaviour of the participants in the taxation process. In New Zealand, adherence to integrity as it is articulated now is likely to be unhelpful in disciplining anyone.

Second, as explained in section 3.1, currently the integrity of the tax system is conceptualised in New Zealand along what was defined in section 2 of this article as the 'risk line'. From the disciplinary power perspective, framing the integrity of the tax system along the 'risk line' may mobilise those people who believe that paying taxes is a good thing. In contrast, to encourage those who do not pay taxes to change their mind, it could be more effective to frame the integrity of the tax system along both risk lines and benefits lines. This would imply a clear explanation of the benefits of a tax system that has integrity, and the risks that a lack of integrity might entail.

Foucault's views also allow a 'governmentality' approach to the management of people, including the participants in the taxation process. The term 'governmentality' describes a mentality that has underlain political thought and action from the 18th century, and is based on the idea that different populations of humans have their own characteristics[99] and are 'to be understood by specific knowledges and governed through techniques attuned to their condition'.[100] The concepts and methodologies that have subsequently been developed in studies of governmentality are flexible and open-ended, and have been implemented in many fields and by many institutions.[101]

As legal academic Paul McHugh explains: [102]

> Governmentality is concerned with more than law, which it sees as a key part of the suite of technologies and strategies by which rationalizations occurred, that is to say the replacement of traditions, values, and emotions as motivators for behaviour within a population with rational, calculated ones. Governmentality describes the constructing, contesting, and managing of juridical space(s) through networks, authorities, groups, individuals, and institutions thinking, talking, and acting in ways that construct, validate, and change that space. This is activity governmental in its reach (albeit not necessarily always legal in character) by which the subject is co-opted into an

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[99] Michel Foucault, *Security, Territory, Population*: *Lectures at the Collège de France 1977-78,* ed Michel Senellart, tr Graham Burchell (Palgrave Macmillan, 2009) 108-110.
[100] Paul G McHugh, 'Imperial Law: The Legal Historian and the Trials and Tribulations of an Imperial Past' in Markus D Dubber and Christopher Tomlins (eds), *The Oxford Handbook of Legal History* (Oxford University Press, 2018) 883, 892. For detailed explanation of what Foucault calls 'new governmentality' see Foucault, *Security, Territory, Population*, above n 99, 449-454.
[101] See examples in Nikolas Rose, Pat O'Malley and Mariana Valverde, 'Governmentality' (2006) 2 *Annual Review of Law and Social Science* 83, 92-97.
[102] McHugh, above n 100, 892.

> ever-configuring mesh of relations situating them by reference to the freedom given them.

An appeal to the integrity of the tax system in the *Tax Administration Act 1994* and policy documents can (but fail) to create a 'sense of the common good' that the tax authorities in New Zealand can use to justify their actions and manage taxpayers and their expectations. One of the reasons for this failure is a disconnect between taxpayers and tax authorities that arises from a view that only the former could and should be governed, and only the latter could and should govern the former. Foucault's views help to explain governance and the role of law and soft instruments in it from a broader perspective, where government agents are not only the subjects of sovereign and disciplinary powers, but also of these powers' 'effects' and 'relays' — they are constituted by power and help this power to pass through.[103] This perspective, when applied for the conceptualisation of integrity of the tax system, has a potential to make this reimagined concept an effective governing tool, a tool that could (and, as it is argued in this section, should) govern all participants in the taxation process.

5. REIMAGINING INTEGRITY

Following on from the previous section, using the integrity of a tax system as a governing tool is ineffective for several reasons, all of which are 'design failures'. This section addresses a conceptual failure – the lack of clarity about 'the integrity of the tax system' concept, its importance generally, and as a rationale for people's behaviour – and explains how this failure could be fixed. Specifically, this section explains what the integrity of the tax system should mean, and how adherence to integrity as part of a governing strategy can be operationalised in terms of 'integrity duty'.

5.1 The meaning of the integrity of the tax system

Understanding the meaning of such a morally loaded concept as the integrity of the tax system enables an explanation of why this concept matters or should matter. This understanding, in turn, helps to connect the morally loaded concept to the moral values of people, and, through this concept's resonance in people's minds, encourage the desired behaviour.

Viewing the concept of the integrity of the tax system as a part of a strategy governing all of the participants in the taxation process provides a frame for the formulation of the concept's policy-specific meaning, which, in turn, should be aligned with a more general meaning of the concept. In a broader sense, 'integrity is about the ethics of conduct and the behaviour of a person in society'.[104] The policy-specific meaning of integrity should therefore reflect a 'composition of moral values in society',[105] which, in the tax context, should guide the behaviour of the participants in the taxation process individually and collectively. The emphasis is not on values as such, but on their *composition*.

When applying this broad meaning of integrity to the tax system, it is possible to conclude that the integrity of the tax system is the system's moral foundation. If the integrity of the tax system is essentially a moral concept, it can only be used as a moral

[103] Foucault, *'Society Must Be Defended'*, above n 72, 30.
[104] Nartey, above n 5, 254.
[105] Ibid 253.

framework for guiding the behaviour of the participants in the taxation process, and so should reflect and shape the moral values of these participants. A moral concept does not need to be legislated, but it does need to be clearly communicated in tax policy documents so that every participant in the taxation process can understand the concept's meaning and effects.

Moral values or norms are clusters of moral judgments that, together with social norms (clusters of normative attitudes), operate as legitimising or delegitimising tools,[106] and, therefore, can be a basis for tax cooperation and compliance.[107] The moral values that comprise the integrity of New Zealand's tax system can be derived from the established principles of a good tax system. These principles are, in effect, the moral norms that guide tax policymakers and inform any domestic tax discourse in a political community. There is a general consensus manifested in many tax policy documents that New Zealand's tax system should be premised on principles of equity and efficiency. This consensus is universal across Western countries, due to the wide adoption of Adam Smith's canons of 'good tax'.[108] From an integrity perspective, there should be a balance between these principles in order to minimise inefficiencies and to avoid the regressivity that a prevalence of one over another principle creates.

A balance between the equity and the efficiency of the tax system would mean that the system benefits everyone. But while this balance is important, finding it is no easy task. According to economist and activist Joseph Stiglitz, if the market economy is to operate efficiently, it needs a certain level of income inequality to motivate individuals.[109] However, inequality, despite its positive effects on the market outcome, generates positive welfare effects for only a few people.[110] As another economist, Vito Tanzi, has noted, favouring efficiency is one of the factors contributing to the growth of inequality in income distribution.[111] This inequality, in turn, requires more spending on the maintenance of the social order.[112] There is also increasing evidence that high levels of income inequality are detrimental to the pace and sustainability of economic growth.[113]

The balance between equity and efficiency, among other things, means a balanced approach to this system's administration. In the era of artificial intelligence (AI) and the widespread availability of personal data, this balance, in particular, means the importance of having a human presence in the process of tax assessment and tax-related decision-making. Generative AI systems allow Inland Revenue to automate these

[106] For more detail see Plekhanova, 'The Legitimizing Effects of the OECD's Fairness-Based Narratives', above n 67, 795.
[107] Ibid 808.
[108] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Strahan, 1776) Bk V, ch II, 423-425.
[109] Joseph E Stiglitz, *Freefall: America, Free Markets, and the Sinking of the World Economy* (W W Norton, 2010) 110.
[110] For instance, see Charles MA Clark, 'Promoting Economic Equity: The Basic Income Approach' in Marc R Tool and Paul Dale Bush (eds), *Institutional Analysis and Economic Policy* (Kluwer Academic Publishers, 2003) 133, 138.
[111] Vito Tanzi, *Termites of the State: Why Complexity Leads to Inequity* (Cambridge University Press, 2018) 342-344.
[112] Samuel Bowles and Arjun Jayadev, 'The Enforcement-Equality Tradeoff' in Lilia Costabile (ed), *Institutions for Social Well-Being: Alternatives for Europe* (Palgrave Macmillan, 2008) 74.
[113] For more detail see Bert Brys, Sarah Perret, Alastair Thomas and Pierce O'Reilly, 'Tax Design for Inclusive Economic Growth' (OECD Taxation Working Paper No 26, 2016) 10. See also Clark, above n 110, 139 and 143.

processes and make them very efficient. Whether or not this automation could guarantee equity in decision-making will very much depend on the design of the AI systems and the quality of their oversight by humans.

The interplay between the equity and the efficiency of the tax system is not static and depends on many factors, which makes tax policymaking and tax lawmaking a ‘balancing act’. This act’s outcome can only be controlled to some extent, and may require some policies and legal provisions to be more ‘efficiency-oriented’ or more ‘equity-oriented’. Nevertheless, the dual equity–efficiency objective should be in the background of any decision about tax policies and tax statutes, their interpretation and administration.

5.2 The integrity duty

The integrity duty of the tax system can be formulated as a combination of a shared responsibility in maintaining a balance of the socially and morally acceptable principles upon which the system is based, and an individual responsibility for honesty with oneself in evaluating the effects of one’s own actions (or inactions) on this balance and on society.

Based on the suggested definition of the integrity of the tax system as a balance between its equity and efficiency, adherence to this integrity therefore should imply a responsibility to develop, maintain and protect this balance through one’s own actions, whether these actions imply designing a tax system, its administration, or compliance with ethical and professional standards, tax liabilities, or the rule of law generally. In other words, the integrity duty extends to all participants in the taxation process, the legislator and the judiciary.

In the reimagining the integrity concept as a governing tool would require making a distinction between creating and maintaining the tax system’s integrity. An integrity duty can therefore be either substantive – a duty to set up a system that is coherent and principle-based – or procedural – a duty to maintain or protect the system’s integrity, including through the interpretation and application of tax laws. This means that not only tax administrators, but also tax adjudicators, taxpayers and tax intermediaries, and the legislature should be responsible for the integrity of New Zealand’s tax system. This procedural duty is closely linked to procedural fairness, to the extent that it focuses not only on a single person but on how the fair or unfair treatment of one person may impact the entire community.

The substantive and procedural aspects of the integrity duty are interdependent and linked to compliance. If the tax system lacks integrity, it invites rule-abusing behaviour from participants in the taxation process. Conversely, when the tax system exhibits integrity, it encourages compliance from these participants.

The integrity duty comprises a ‘collective element’ (a duty to contribute to a collective action or ‘shared responsibility’) and a ‘personal’ element (a duty to be honest to oneself or ‘personal responsibility’). Both elements are also linked to compliance, albeit in different ways. It could be argued that the integrity duty, as a personal responsibility, encourages meaningful compliance, honesty and acting in good faith. The meaning of the integrity duty, as a shared responsibility, varies, and its link to compliance depends on how the integrity of the tax system is defined and to what group of participants in the taxation process it is applied.

Assuming that the idea of the balance between the equity and efficiency principles upon which the New Zealand's tax system is based, or should be based, is aligned with the moral values of most New Zealanders, we can tailor the compliance expected from every group participating in the taxation process to these principles. For instance, the compliance of taxpayers, when it is linked to the equity principle, would mean 'it is fair to pay taxes and it is unfair not to pay them', 'it is fair to be subject to the same rules as other taxpayers in similar circumstances and it is unfair to circumvent these rules'. The compliance of tax administrators, if linked to the efficiency principle, would translate as an expectation not to create unnecessary compliance costs for taxpayers. Integrity requires a comprehensive approach to compliance because its focus is not on values as such, but on the balance that gives the composition value and makes it distinct from each individual value. This would require moving beyond the traditional approach to compliance in tax contexts. At its deepest level the mechanics of New Zealand's current approach to tax governance is based on encouraging the voluntary compliance of taxpayers. From a shared responsibility perspective, 'compliance' has a much broader meaning: namely, 'compliance with the rule of law', where 'law' encompasses formal rules and the social and moral values that underpin them.

In the tax context, compliance with the rule of law would mean different behaviours for different participants in the taxation process. For taxpayers, it would be compliance with tax obligations as set up in tax law, or what is known as 'voluntary tax compliance'.[114] For tax intermediaries, it is compliance with their own obligations as defined by laws and professional ethical standards, or 'ethical and professional behaviour'. For tax administrators, it is an obligation to apply the law correctly. These meanings are implicit in the statutory definition of 'the integrity of the tax system' and its reference to 'the responsibilities of people to comply with the law'[115] and to the responsibilities of tax administrators to act 'according to law'.[116]

Tax administrators, and government agents generally, are expected to comply with various laws and standards of good governance. In democratic societies these expectations revolve around respect for fundamental rights, constitutional principles and taxpayer's rights. In New Zealand this means acting in accordance with the *Public Service Act 2020*, the *New Zealand Bill of Rights Act 1990*, the *Human Rights Act 1993*, the *Privacy Act 2020*, the principles of the *Treaty of Waitangi*, and the *Tax Administration Act 1994*.

Specifically, the *Public Service Act 2020* sets criteria for evaluating the legality of decisions made by tax administrators.[117] The statutory concept of the integrity of the tax system also refers to the right to have one's liability determined fairly, impartially and according to law,[118] which works in combination with the general responsibility to administer the law fairly, impartially and according to law.[119]

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[114] Gribnau refers to corporate taxpayers; however, it could be said that any taxpayer who is required to assess their own tax liability and pay tax is responsible for the integrity of the tax system. See Gribnau, above n 98.
[115] *Tax Administration Act 1994*, s 6(2)(d).
[116] Ibid s 6(2)(b) and (f).
[117] *Public Service Act 2020* (NZ) s 11.
[118] *Tax Administration Act 1994*, s 6(2)(d).
[119] Ibid s 6(2)(f).

Tax authorities and other government agents must also meet the legitimate expectations of taxpayers as defined by case law.[120] This is done through formal mechanisms like binding rulings, which are official interpretations of tax law applicable to specific facts that the Commissioner of Inland Revenue is obligated to follow,[121] and which are supported by informal general guidance. Tax authorities must also obey the principle of equality, which means that any decision they make should not result in prohibited discrimination, as defined by *New Zealand Bill of Rights Act 1990*[122] and the *Human Rights Act 1993*.[123] The non-discrimination requirements are binding on government actions under the *Human Rights Act 1993*.[124] This is reinforced by the statutory concept of the integrity of the tax system, which also refers to a person's right to be treated with no greater or lesser favour than other persons in their tax affairs.[125]

When collecting, using and sharing the private data of individuals, the tax authorities must comply with the *Privacy Act 2020*, which sets out information privacy principles and codes of practice that govern how agencies collect, use, store and disclose personal information.[126] The Māori Data Sovereignty Principles — a set of values specific to Māori people, language, culture, resources and/or environments[127] — may affect how New Zealand's tax authorities collect, use and share the data of Māori people.

In line with the principles of the *Treaty of Waitangi* – which guide the relationship between the Crown (the Government of New Zealand) and Māori people – the tax authorities may also be expected to adopt a Te Ao Māori perspective in some decision-making. For instance, as a signatory of the Algorithm Charter,[128] Inland Revenue is committed to embedding the Te Ao Māori perspective in the development and use of algorithms in tax administration.[129]

The *Tax Administration Act 1994* contains strict provisions on the confidentiality of taxpayer information. As has been discussed in section 2.2, any sensitive revenue data that Inland Revenue holds on taxpayers is confidential and can only be used for lawful tax administration purposes or disclosed where specifically permitted by law. The collection and non-disclosure of revenue information are examples of actions that protect the integrity of New Zealand's tax system. Compliance with tax obligations or ethical standards are means to the same end, which means that the statutory definition of 'the integrity of the tax system' should be broad enough to accommodate the contributions of all participants in the taxation process.

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[120] *Northern Roller Milling Co Ltd v Commerce Commission* [1994] 2 NZLR 747, 750-753 and 755.
[121] *Tax Administration Act 1994*, s 91A.
[122] *New Zealand Bill of Rights Act 1990* (NZ) s 19(1).
[123] *Human Rights Act 1993* (NZ) s 21.
[124] Ibid s 20J(1).
[125] *Tax Administration Act 1994*, s 6(2)(c).
[126] *Privacy Act 2020* (NZ) Pt 3.
[127] Te Mana Raraunga Māori Data Sovereignty Network, *Māori Data Sovereignty Principles* (Brief No 1, October 2018) <https://cdn.auckland.ac.nz/assets/psych/about/our-research/documents/TMR%2BM%C4%81ori%2BData%2BSovereignty%2BPrinciples%2BOct%2B2018.pdf>.
[128] New Zealand Government, *Algorithm Charter for Aotearoa New Zealand* (2020).
[129] Inland Revenue, *Algorithm Charter for Aotearoa New Zealand: Annual Report* (2023) <https://www.ird.govt.nz/about-us/publications/annual-corporate-reports/annual-report/annual-report-2023/additional-information/algorithm-charter-for-aotearoa-new-zealand>. See also Inland Revenue, 'Our Use of Artificial Intelligence (AI)' <https://www.ird.govt.nz/about-us/our-use-of-ai>.

In broader terms, the tax authorities and other government agents are required to be fair; this is also a part of their integrity obligation.[130] 'Fairness' in this context is encapsulated in the long-established concept of "natural justice"[131] or 'fair play in action',[132] and its two key principles: the affected parties should be given adequate notice and an opportunity to be heard, and the decision-maker should be disinterested and unbiased.[133] Natural justice is guaranteed under the *New Zealand Bill of Rights Act 1990*,[134] and comprises a broader right to justice, which includes the right to appeal a decision, the right to bring civil proceedings against the Crown, and the right to defend any civil proceedings brought by the Crown.[135] These rights should be respected not only by judicial and quasi-judicial bodies, but also by governing actors more generally.[136] In the tax context it means that taxpayers should be able to appeal decisions made by the tax authorities, and that the tax authorities should not be biased when making such decisions. There is therefore a link with the principle of equality and the non-discrimination provisions in the *New Zealand Bill of Rights Act 1990*[137] and the *Human Rights Act 1993*[138] that protect this principle.

Under New Zealand's common law, 'there is no general obligation on public decision-makers to provide reasons' for any decisions they make.[139] Nevertheless, under some conditions fairness may require an administrative body to give reasons for its decisions.[140] One of these conditions is the existence of a statute that explicitly or implicitly requires governing agents to provide reasons for their decisions[141] or that awards a person the right to seek an explanation from governing agents. For instance, the *Official Information Act 1982*[142] allows an individual to request the reasons for a decision or recommendation that affects them.[143] In the tax context it means that the tax authorities should provide reasons for their decisions when it is directly required by law,[144] or when requested by an individual in accordance with the *Official Information Act 1982*. The tax authorities should not refer to the integrity of the tax system when they refuse to provide reasons or information requested under the *Official Information Act 1982*. Such a reference is at odds with the principles underpinning the system's integrity. This is because in this context the reference is used for instrumental purposes;

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130 *Tax Administration Act 1994*, s 6(2)(f).
131 *Daganayasi v Minister of Immigration* [1980] 2 NZLR 130, 141 (CA) per Cooke J.
132 *Furnell v Whangarei High Schools Board* [1973] 2 NZLR 705, 718 (PC) per Lord Morris of Borth-y-Gest.
133 Justice Susan Glazebrook, 'To the Lighthouse: Judicial Review and Immigration in New Zealand' (Paper written for the Supreme Court and Federal Court Judges' Conference held in Hobart from 24 to 28 January 2009) 5.
134 *New Zealand Bill of Rights Act 1990*, Long Title and s 27(1).
135 Ibid s 27.
136 Glazebrook, above n 133, 5.
137 *New Zealand Bill of Rights Act 1990*, s 19(1).
138 *Human Rights Act 1993*, s 21.
139 Tim Cochrane, 'A General Public Law Duty to Provide Reasons: Why New Zealand Should Follow the Irish Supreme Court' (2013) 11(3) *New Zealand Journal of Public International Law* 517, 528. See also Jessica Palairet, 'Reason-Giving in the Age of Algorithms' (2020) 26 *Auckland University Law Review* 92, 101-113.
140 Paul Paterson, 'Administrative Decision-Making and the Duty to Give Reasons: Can and Must Dissenters Explain Themselves?' (2006) 12 *Auckland University Law Review* 1, 3.
141 Ibid 5. According to Paterson an implicit reasons requirement 'is most frequently found where there is a statutory right of appeal' (ibid).
142 See also the *Local Government Official Information and Meetings Act 1987* (NZ) s 22.
143 *Official Information Act 1982* (NZ) s 23. See also Paterson, above n 140, 10.
144 See *Tax Administration Act 1994*, ss 23G(2); 34B; 91AAM3(a) and (b)(ii); and 91AAM(5).

namely, to justify the actions or inactions of the tax authorities. This reference has nothing to do with the specific composition of moral values, which is a balance between equity and efficiency, upon which New Zealand's tax system is based and which comprises this system's integrity.

5.3 Why the suggested conceptualisation makes sense in New Zealand

Suggested concepts of the integrity of the tax system and the integrity duty set clear expectations for the desirable and acceptable behaviour of participants in the taxation process, the legislature and the judiciary, and allow any defects in this behaviour (eg, non-compliance with the rule of law or dishonesty) or any defects in the tax system (the lack of wholeness that arises from imbalance between the principles upon which the system is based) to be revealed.[145] This exposure, or the risk of such exposure, will most likely result in better behaviours and improvements of the system.

References to the integrity duty, as a governing tool, will likely operate in different ways in individualistic societies when compared to collectivist ones.[146] In individualistic societies, the emphasis on individual 'completeness' will prevail, and the difference between personal integrity and the integrity of a politician or a statesperson will be clear.[147] In contrast, collectivist societies will accentuate the integration of the individual into the nation (or nation-state).[148] New Zealand society is very interesting in this regard. Individualism is at the core of its education system and other institutional structures. However, the country's demographic[149] suggests that the majority of people living in New Zealand have been brought up in countries or communities where the collective prevails over the individual. The approach to the integrity duty suggested in this article combines individual and collective responsibility, which makes it a good fit for New Zealand's diverse society.

6. Transforming the integrity into an effective governing tool

This section explains how to make integrity become a tool governing all participants in the taxation process, and the legislature and the judiciary.

The concept of the integrity of a tax system sets a moral framework, but behaviours that fit into this framework need to be conceptualised in terms of 'duty' or responsibility. The integrity duty was suggested for this reason. As has been explained in section 5, in some contexts the integrity duty comprises or is linked to specific duties defined by law. Many of these specific duties can be enforced. In these limited situations, the 'power of command' in Foucault's terms will encourage the integrity-oriented behaviour.

Some duties are legal responsibilities and therefore can be supported by coercive mechanisms of a 'sovereign', whereas other duties are moral responsibilities. This dictates a need to rely on the disciplinary power. Disciplinary power, as a power of

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145 This is in line with the argument on the aim of the principles of ethics and integrity and the aim of enforcement in Nartey, above n 5, 260-267.

146 For illuminating analysis of individualistic societies and their origin see Joseph Henrich, *The WEIRDest People in the World: How the West Became Psychologically Peculiar and Particularly Prosperous* (Penguin Books, 2020).

147 Montefiore, above n 5, 12-13.

148 Ibid.

149 Paul Spoonley, *The New New Zealand: Facing Demographic Disruption* (Massey University Press, 2020).

training and self-control, is conditioned by the discourse. Therefore, the discourse, or policy narrative, is important to the effective operation of the governing strategy that deploys the integrity of the tax system and the integrity duty and seeks to encourage specific behaviour.

This narrative, in particular, can explain in more detail how the various responsibilities of different groups of participants in the taxation process affect the integrity of the taxation, system and why the performance of these responsibilities is beneficial to both society and each of its individual members. Ideas for such an explanation can be drawn from section 5 of this article.

Policy narratives 'normalise' ideas. As a result of such 'normalisation', desired behaviours become habitual and self-reinforcing. In the context of this article's discussion, two ideas need to be normalised. First, integrity as a specific composition of values regarding an object (the tax system). Second, this specific composition must be created and maintained through collective and individual efforts. The changes in mindsets and approaches to tax law and policymaking that will follow from such a normalisation will more closely align the tax system and its administration with the social and moral norms shared by New Zealanders.

Drawing on the conclusions of sections 3, 4 and 5, the following steps for tax reform can be suggested. First, references to the integrity of the tax system (or any tax-related concept) should be removed from all legal rules where this concept is invoked for instrumental purposes.

For the concept of 'the integrity of the tax system' to be a part of an effective governing strategy, it should only be used as a moral framework to guide the behaviour of all of the participants in the taxation process. The concept should not be used for any other purposes, as doing so undermines its effectiveness as a governing tool. Currently, Inland Revenue can use 'the integrity of the tax system' as a shield from information transparency. In some situations there may be a very good reason for secrecy, but when one group of participants in the taxation process is allowed to not disclose certain information whereas another group does not have such a privilege, the idea of shared responsibility and cooperation will inevitably be undermined. So while the tax authorities should be able to keep some information secret, this right to secrecy should not be linked to the integrity of the tax system. In other words, references to this integrity as a rationale for the non-disclosure of revenue information by tax authorities should be removed from the *Tax Administration Act 1994* to allow the integrity concept to perform its governing role.

Specific changes should, first of all, include the replacement of the current version of section 6 of the *Tax Administration Act 1994* with the following new version:

> '6 Integrity duty
>
> Meaning of integrity of tax system
>
> (1)
>
> The integrity of the tax system is a balance between equity and efficiency – two main principles upon which New Zealand's tax system is based.
>
> Meaning of the integrity duty

> (2)
>
> The integrity duty is a responsibility to develop, maintain and protect the integrity of the tax system through one's own actions, whether these actions imply designing a tax system, its administration or compliance with ethical and professional standards, tax liabilities, or the rule of law generally.
>
> (3)
>
> The integrity duty is not limited to legal obligations defined in various Acts but it also includes a personal responsibility for honesty with oneself in evaluating the effects of one's own actions (or inactions) on the integrity of the tax system and on society.'

Second, the rights and responsibilities that are currently listed in paragraphs (b)–(f) of section 6 of the *Tax Administration Act 1994* can be included in a separate section entitled 'Rights and Responsibilities in Relation to the Administration of Tax Laws'.[150]

Third, references to integrity as a rationale for collecting revenue information,[151] and for the non-disclosure of revenue information, by the tax authorities[152] should be removed from the *Tax Administration Act 1994* to allow the integrity concept to perform its governing role effectively. The Commissioner of Inland Revenue's right to collect revenue information and the right to non-disclosure can be included in the section 'Rights and Responsibilities in Relation to the Administration of Tax Laws', but without reference to the integrity of the tax system.

Finally, Inland Revenue should issue a policy document that, in particular, explains: 1) why the integrity of the tax system should be defined as a balance between this system's equity and efficiency, whereas the integrity duty should be formulated as a combination of a shared responsibility in maintaining a balance of the socially and morally acceptable principles upon which the system is based, and an individual responsibility for honesty with oneself in evaluating the effects of one's own actions (or inactions) on this balance and on society; 2) how the adherence to the integrity of New Zealand's tax system benefits society and each of its members; 3) how the Commissioner of Inland Revenue and every person acting on the Commissioner's behalf performs their integrity duty, and 4) how this performance is measured.

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[150] *Tax Administration Act 1994*, s 6(2):
'(b)
the rights of persons to have their liability determined fairly, impartially, and according to law; and
(c)
the rights of persons to have their individual affairs kept confidential and treated with no greater or lesser favour than the tax affairs of other persons; and
(d)
the responsibilities of persons to comply with the law; and
(e)
the responsibilities of those administering the law to maintain the confidentiality of the affairs of persons; and
(f)
the responsibilities of those administering the law to do so fairly, impartially, and according to law'.

[151] Ibid s 16B(1)(a).

[152] Ibid s 18(3).

7. CONCLUSION

It has been suggested that the tax system 'should be based on an impartial balancing of the different interests involved'.[153] The difficulty with this is that such a balance would be more an aspiration than an achievable objective. Tax rules tend to be a trade-off between conflicting principles and objectives. Some rules will meet only some principles while also breaching others. Therefore, as Hans Gribnau explains, tax law will 'inevitably appear to be imperfect, ambiguous, lagging behind societal, economic and technical developments and taxpayers' undesirable use of legislation, and so on. The letter of the law may diverge from the spirit of the law'. [154] This is where integrity could come into play to encourage morally sound behaviour that benefits society as a whole despite the imperfections of some of its domestic laws.

The integrity of the tax system is not the end in itself, and the purpose of using it as a reference point is not to protect flaws in the tax system or justify actions, but rather to deliver a socially and morally acceptable outcome in spite of the flaws in laws.

Information empowers. In the 21st century, rapidly advancing technological developments will soon automate tax compliance and tax administration, thereby further increasing the power imbalance between tax authorities and taxpayers. This will necessitate our adhering more closely to the integrity of the tax system, but in a way that creates a well-functioning system of checks and balances. If the concept of the integrity of the tax system is formulated as a balance between this system's equity and efficiency, and is supported by the concept of integrity duty as a combination of a shared responsibility in maintaining a balance of socially acceptable principles upon which the system is based, and an individual responsibility for honesty with oneself in evaluating the effects of one's own actions (or inactions) on this balance and the society, it could well form the foundation of such a system of checks and balances.

[153] Gribnau, above n 98, 15.
[154] Ibid (footnotes omitted).

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Do statutory tax rates affect cost stickiness?

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Abstract

This study investigates the association between country-level statutory tax rates and cost stickiness using a sample of listed firms from 35 Organisation for Economic Co-operation and Development (OECD) countries from 1988 to 2017. Using a modified model proposed by Banker and Byzalov (2014), we find that statutory tax rates are positively associated with cost stickiness. These results are consistent with managers considering tax savings when deciding whether to maintain or release committed resources to maximise firm value. Thus, this study provides new insights that may explain determinants of cost stickiness and interest policymakers regarding the efficacy of tax laws.

Key words: asymmetric cost behaviour, cost stickiness, statutory tax rates

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1. INTRODUCTION

This study investigates the association between statutory tax rates and cost stickiness. Cost stickiness describes the asymmetric behaviour between costs and sales. In terms of selling, general, and administrative (SGA) costs, cost stickiness suggests that SGA costs decrease more slowly during sales decreases than SGA costs increase during sales increases (Anderson, Banker & Janakiraman, 2003). Anderson and co-authors suggest this asymmetric cost behaviour results from managers choosing the better scenario, in terms of net present value (NPV), of uncommitting unnecessary costs versus keeping the costs or from managers being reluctant to relinquish power. Due to the importance of accurate earnings predictions for policymakers and market participants alike, numerous studies explore the factors contributing to cost stickiness. Closest to our study, Banker, Byzalov and Threinen (2013) suggest and find that various country characteristics (i.e., judicial systems, degree of country development, and shareholder protection laws) are associated with cost stickiness. However, their study did not explore whether a country's statutory tax rate correlates with the degree of cost stickiness.

Scholes and Wolfson's (1992) tax planning framework suggests that managers should assess NPVs with after-tax cashflows when evaluating decisions. Along these lines, a rich literature documents that tax considerations significantly influence managers' real-world decisions involving investments, capital structuring, acquisitions, and compensation (Hanlon & Heitzman, 2010; Shackelford & Shevlin, 2001). Though this literature stream documents the pervasive nature of taxes in decision-making, cost stickiness studies omit tax rates as a potential factor of cost stickiness.[1]

Operating expenses incurred in support of generating revenues are generally deductible from taxable income, and as tax rates increase, tax savings also increase from deductions, reducing after-tax costs. When companies consider decreasing costs in response to the sales decreases, they should be aware that companies in high-tax jurisdictions can obtain fewer after-tax benefits from reducing costs as the reduced costs now become taxable income (released taxable income is subject to higher tax obligations). In other words, the tax savings incurred from the operating expenses decrease the after-tax costs of retaining resources. For the same amount of pre-tax operating expenses, it is less costly for companies in high-tax environments to keep underutilised resources. In this case, the adjustment costs are more likely to outweigh the NPV of the after-tax cost of retaining the underutilised resources, making retaining these resources an optional decision, which strengthens the cost stickiness. As such, we explore the possibility that statutory tax rates correlate with cost stickiness.

To explore the potential association between tax rates and cost stickiness, we utilise 248,093 observations from 35 Organisation for Economic Co-operation and Development (OECD) countries from 1988 to 2017. Using a modified version of the model proposed by Banker and Byzalov (2014), we find evidence consistent with higher statutory tax rates strengthening cost stickiness. Moreover, due to United States (US) firms constituting a large portion of our main sample, we exclude US firms in an

[1] For this study, we interview some tax executives regarding whether tax rates impact their companies' cost management behaviour. One interviewee stated, 'It is a factor … maybe not in the top 5, but they're in the top 10'.

additional test and continue to find support for the association between statutory tax rates and cost stickiness.

In our main analyses, we use statutory tax rates to estimate firms' marginal tax rates, the rate at which the next unit of taxable income is taxed. Marginal tax rates are often used in tax planning to determine after-tax values. However, marginal tax rates are unobservable and based on numerous factors, such as tax rate structures, the deductibility of expenses, and the availability of tax credits.[2] As such, we replace our proxy for marginal tax rates with the International Tax Competitive Index (ITCI) and the country's tax revenue to their gross domestic product (GDP) ratio as a robustness check. We find that the ITCI (a higher value suggests a lower corporate tax burden) is negatively associated with the degree of cost stickiness, and the ratio of tax revenue to GDP (a higher value suggests a higher corporate tax burden) is positively associated with the level of cost stickiness. These results are consistent with our main analyses.

Our findings regarding the association between statutory tax rates and cost stickiness are important for several reasons. First, this study contributes to the growing literature stream that examines cost stickiness (Anderson et al., 2007; Balakrishnan & Gruca, 2008; Balakrishnan, Labro & Soderstrom, 2014; Banker, Byzalov & Chen, 2013; Banker, Byzalov and Threinen, 2013; Blatter, Muehlemann & Schenker, 2012; Chen, Lu & Sougiannis, 2012; Dierynck, Landsman & Renders, 2012; Lee, Pittman & Saffar, 2020; Rouxelin, Wongsunwai & Yehuda, 2018). While these studies provide numerous insights into cost stickiness, they omit the possibility of marginal tax rates influencing cost stickiness, even with its importance in calculating NPVs. This article fills this gap and shows that marginal tax rates likely play a role in managers' optimal resource commitment decisions.

Second, this study provides some insights for policymakers. Governments use tax policies to accomplish many goals, such as encouraging investment, discouraging corporate expatriation, or decreasing unemployment. For example, to encourage companies to increase wages, the 2024 Japan Tax Reforms enable large companies that increase wages by 7% or greater to receive a corporate tax credit, which equals 25% of the increase (Ernst & Young, 2023). Our study can help policymakers understand the possible influence of tax policies on firm-level activity adjustment decisions. While policymakers who set higher statutory rates may target higher tax revenue, firms that face high tax rates may uncommit fewer resources during sales decreases, noticing the tax savings from deductible expenses. Our study can help policymakers understand the second-order effects of these policies. Policymakers may want to consider this potential second-order effect before implementing new tax rate structures.

The remainder of this study proceeds as follows. Section 2 provides technical details of the financial reporting and tax systems of countries utilised in this study and develops our main hypothesis. Section 3 describes our sample selection, multivariate methodology, and interview methodology. Section 4 provides our main empirical results. Section 5 provides results from our robustness tests. In section 6, we conclude.

[2] Table 6 (Appendix) lists the countries utilised in this study and their financial reporting and tax system characteristics. In general, all countries in this study allow tax deductions for expenses incurred generating income.

2. BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Accounting treatment for operating expenses

Accounting principles vary worldwide but fall into two broad classifications: Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). GAAP is often viewed as a 'rules-based' system. In contrast, IFRS is viewed as a 'principles-based' system.[3] Though the underlying frameworks of these systems differ, numerous similarities exist between GAAP and IFRS due to their focus on ensuring consistency and comparability in financial reporting across diverse industries and geographic regions.

When detailing operating expense recognition, the conceptual frameworks of US GAAP and IFRS overlap significantly.[4] However, several differences exist between the two systems. Some key differences are:

(1) research and development costs: US GAAP requires companies to expense both research and development expenses (Accounting Standards Codification (ASC) 730, Research and Development), while IFRS allows capitalisation of development costs if they meet certain criteria (International Accounting Standard (IAS) 38, Intangible Assets);

(2) cost of goods sold: US GAAP allows companies to use the last-in, first-out method for valuing ending inventory (ASC 330, Inventory), which IFRS prohibits (IAS 2, Inventories);

(3) leases: US GAAP requires lessees to distinguish between operating and finance leases, which affects accounting treatments and disclosures (ASC 842, Leases). However, IFRS now requires that the balance sheet report almost all leases as lease liabilities (IFRS 16, Leases);

(4) Property, Plant, and Equipment (PP&E): US GAAP generally requires listed companies to use the historical cost approach for PP&E (ASC 360, Property, Plant and Equipment), while IFRS allows companies to also consider a revaluation approach (IAS 16 Property, Plant and Equipment).

Despite these differences and others, GAAP and IFRS recognise and measure most operating expenses similarly. Both principles require operating expenses to be deducted from revenue when calculating net income.

2.2 Tax treatment for operating expenses

Like accounting principles, tax environments vary worldwide. However, all of the countries in our study allow the deduction of most, if not all, operating expenses against taxable income. Often, an expense must meet two criteria to be deductible. First, the expense must be documented. Second, the expense must be necessary to gain or produce

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[3] In our sample, 32 countries utilise IFRS, and three countries utilise country-specific GAAP. For more details, see Table 6 (Appendix).

[4] For a detailed discussion regarding these similarities and differences, see PwC, 'IFRS and US GAAP: Similarities and differences guide' (10 June 2025), https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/ifrs_and_us_gaap_sim/ifrs_and_us_gaap_sim_US/About-this-guide.html.

taxable income. PricewaterhouseCoopers' World Tax Summaries (PwC, 2024) and Deloitte's (2024) International Tax Highlights suggest that most recognised operating expenses for financial purposes meet this criterion and are deductible under the associated country's tax system.[5] However, tax systems are complex and may limit the deductibility of some operating expenses. For example, by comparing the tax treatment on operating expenses between countries provided by PwC's World Tax Summaries (PwC, 2024), we observed the following differences in relation to the deductibility of operating expenses in general: (1) the depreciation method and depreciation rate for different types of assets; (2) limitation on the deductible amount of charitable contributions, and (3) whether amortisation of goodwill is allowed.[6]

As there are differences in the accounting treatment and tax treatment on specific kinds of operating expenses, the findings from our study may not generalise to countries that allow minimal deductions for operating expenses.

2.3 Hypothesis development

Anderson and co-authors (2003) document that SGA costs are sticky. Specifically, they document that these costs have a stronger positive correlation with sales during increasing sales than during decreasing sales. To explain this result, they suggest that costs are either engineered or committed. Engineered costs have a linear association with sales, while committed costs have no association with sales. Though engineered costs are exclusively variable, committed costs can consist of variable costs (i.e., additional sales force) and fixed costs (i.e., human resources department). They suggest that the variable component of committed costs drives this asymmetric cost behaviour. For example, managers may delay firing unnecessary employees in the sales department due to concerns about adjustment costs, such as severance costs for firing and searching and training costs for rehiring, and organisational costs, such as loss of morale and loss of knowledge, skills, and abilities of the workforce (Abel & Eberly, 1994; Anderson et al., 2003, Bentolila & Bertola, 1990). Banker, Byzalov and Chen (2013) suggest that managers may weigh the trade-offs of adjustment costs with the NPV of cashflows expected to be generated by the underutilised resources. In other words, managers will attempt to maximise firm value with their decisions.

Though not the focus of this study, prior research also suggests that cost stickiness may be the product of managerial expectations (Banker et al., 2014) or managerial incentives (Anderson et al., 2003). For example, optimistic managers may delay releasing unutilised committed resources during sales decreases in hopes of future sales increases (Banker et al., 2014), while imperialistic managers may be reluctant to relinquish committed resources they control during sales decreases (Anderson et al., 2003). Additionally, research shows that manager compensation arrangements are associated with cost stickiness. Specifically, when compensation is tied to financial targets, such as earning targets and profit ratios, managers are more likely to make resource decisions that benefit personal wealth instead of shareholder wealth (Banker & Chen, 2006; Dierynck et al., 2012; Kama & Weiss, 2013; Weiss, 2010).

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[5] For more details regarding country-specific tax systems, see Table 6 (Appendix).

[6] Considering the complexity and variability of tax laws between different jurisdictions over time, the above discussion does not cover all kinds of operating expenses.

In this study, we suggest that managers consider tax savings when calculating the NPV of committed costs to optimise resource adjustment decisions. A rich literature stream exists theorising and demonstrating that managers consider taxes when making real decisions, such as decisions on investment, capital structure, acquisitions, and compensation.[7] For instance, Hite and Long (1982) theorise that the tax treatment of various compensation arrangements could influence the eventual form of a compensation arrangement. As such, they provide empirical evidence from 100 industrial firms supporting their theory. Harris and O'Brien (2018) theorise that repatriation taxes could deter managers from pursuing various domestic acquisitions when there is a small potential pre-tax NPV. Consistent with this theory, they document a decrease in domestic acquisitions after US firms established a 'Double Irish' structure, which tended to result in higher repatriation taxes.

Additionally, Berger (1993) documents a significant increase in research and development spending in the US after implementing the 1981 Research and Development tax credit, consistent with managers considering tax consequences when making real decisions. From interviews performed by our co-author team (see section 3.3 for interview methodology),[8] one interviewee states, 'We do a lot of things with low-income housing credits and R&D credits … One of the challenges [we face] is how do you continue to grow those tax credits at the same pace as your profitability?'

Managers' performance is often measured after tax to ensure they are maximising the company's wealth. Atwood, Omer and Shelley (1998) provide empirical results showing that companies with more tax planning opportunities often choose after-tax performance measures to ensure that executive managers recognise the tax obligations of their operating and planning decisions. Among their research sample, about 70% of companies use after-tax measures, and 30% of companies use before-tax measures (Atwood et al., 1998). In addition, mid-level managers react to bonus-driven incentives (Kahn & Sherer, 1990; Guidry, Leone & Rock, 1999). Phillips (2003) shows that both chief executive officers (CEOs) and business-unit managers consider tax consequences if their performance is measured on an after-tax basis. In their research sample, about 61% of corporations compensate CEOs on an after-tax basis, and about 32% measure business-unit managers' performance using an after-tax basis. Moreover, one interviewee states that their divisional managers are compensated on an after-tax basis and use after-tax numbers to guide their decisions.[9]

These findings are consistent with principles presented in Scholes and Wolfson's (1992) tax planning framework, which suggests that maximising firm value, not minimising taxes, is the primary objective of tax planning. As such, when evaluating whether to eliminate a cost, managers should consider the tax savings associated with the cost to arrive at its true NPV.

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[7] For a comprehensive discussion of past research on taxes and real decisions, see Shackelford and Shevlin (2001) and Hanlon and Heitzman (2010).

[8] The interview questions were approved by the Institutional Review Board (IRB) for Human Participants at the university where administration of the study was completed.

[9] Specifically, the interviewee states, 'most often we would see [decision making] on an after-tax basis … On a divisional level, they are compensated on an after-tax basis … If you're sitting in the middle of Europe, and you have got a division in France, 30-something percent tax rate, or you have got the same person deciding to make an investment in France or in the UK. The rate in France is in the thirties and the rate in the UK is in the twenties. That could drive their decisions'.

As an illustrative example, consider a company experiencing a sales slump. The manager must decide whether to retain or dismiss an employee to save costs. The before-tax cost of the employee is $100,000. Suppose the manager does not consider tax savings provided by the company's salary deduction. In that case, the manager may determine that eliminating the employee will save the company $100,000, and it outweighs the risk of other costs of eliminating the employee (i.e., severance packages or wrongful termination suits) and terminating the employee. However, if the manager considers the tax savings, eliminating the employee will only save the company the difference between the before-tax cost of the employee and the tax savings, calculated as the before-tax cost times the company's marginal tax rate. Therefore, after-tax costs have an inverse association with the company's marginal tax rate; for example, the after-tax costs of the employee would be $90,000 when the marginal rate is 10% or $79,000 when the marginal rate is 21%.

As the marginal tax rate increases, it is more likely that the manager will determine that eliminating the employee does not outweigh the risk of other costs from eliminating the employee and retain the employee to maximise firm value. Consequently, retaining unnecessary employees or other resources when sales decrease increases cost stickiness. On the contrary, as the marginal tax rate decreases, the after-tax costs of employees are more likely to outweigh the risk of other costs (adjustment costs), which makes eliminating the employee the optimal resource adjustment decision. As a result, managers in low-tax jurisdictions are more likely to reduce costs when sales decrease, decreasing cost stickiness. In line with this reasoning, we state the following hypothesis in the alternative form:

H1: Marginal tax rates are positively associated with cost stickiness.

3. RESEARCH METHODOLOGY

3.1 Sample selection

This study uses a sample of listed companies from non-financial industries in 35 OECD countries from 1988-2017. We exclude financial industries (SIC codes 6000 through 6999) due to their regulated environments and differences in financial characteristics. We collect financial data for US companies from Compustat North America and financial data for other countries from Compustat Global. Following Anderson and co-authors (2003), Banker, Byzalov and Chen (2013), and Kama and Weiss (2013), we exclude firm-years with:

(1) missing or negative values of sales or operating costs in the current or prior two years;

(2) negative or missing values of total assets;

(3) operating costs that are more than 200% or less than 50% of sales during the current or prior two years;

(4) sales increases of more than 50% or decreases of more than 33% in the current or prior year, or

(5) financial data in a non-native currency.

Furthermore, to reduce bias from extreme outliers, we truncate the top and bottom 1% of changes in sales, changes in operating costs, and asset-to-sales ratios. The final sample includes 248,093 observations for 34,776 listed firms in 35 OECD countries from 1988 to 2017.[10] Variable descriptions are summarised in Table 5 (Appendix).

3.2 Variable and model design

Anderson and co-authors (2003) first propose the empirical model in their study to evaluate the percentage changes in expenses in response to the percentage changes in sales. They provide additional empirical evidence showing that asset intensity, employee intensity, successive sales decreases, and GDP growth are four factors that affect the level of cost stickiness when sales decrease. While successive sales decreases weaken the cost stickiness, asset intensity, employee intensity, and GDP growth strengthen the cost stickiness. Follow-up studies extend this model and posit that the effects of these factors should be considered both when sales increase and sales decrease (Kama & Weiss, 2013; Banker & Byzalov, 2014). The modified model is as follows:

$$\Delta lnXOPR_{i,t} = \beta_0 + \delta_0^X X_{i,t} + (\beta_1 + \delta_1^X X_{i,t})\Delta lnSALE_{i,t} + \left(\beta_2 + \delta_2^X X_{i,t}\right) DEC_{i,t}\Delta lnSALE_{i,t} + \varepsilon_{i,t}$$

where the dependent variable $\Delta lnXOPR_{i,t}$ is the log-change in operating costs, the independent variable $\Delta lnSALE_{i,t}$ is the log-change in sales revenue, $DEC_{i,t}$ is the decrease dummy which takes 1 for firm years when sales decrease and zero otherwise, $\varepsilon_{i,t}$ is the error term with a mean of zero and is independent of explanatory variables; and $X_{i,t}$ is the vector of observable determinants of cost asymmetry.

In addition to the four control variables (asset intensity, employee intensity, successive sales decrease, and GDP growth) identified by Anderson and co-authors (2003), our study includes regular and temporal employment legislation protection indexes, origin of law (Banker, Byzalov & Chen, 2013), and indicators of loss carryforward (Bauer, 2016) as additional control variables. The sum of the coefficient estimates β_1 and δ_1^X measures the percentage increase in operating costs when sales increase by 1%. The sum of the coefficient estimates, β_2 and δ_2^X evaluates the resource adjustment difference between rising and falling sales. Hence, the sum of β_1, δ_1^X, β_1, and δ_1^X captures the percentage decrease in operating costs when sales decrease by 1%. The assumption of the asymmetric cost behaviour, conditional on $(\beta_2 + \delta_2^X X_{i,t})$ < zero. According to prior studies (Banker, Byzalov & Chen, 2013), the standard errors of all empirical regression models in this study are clustered by country and year (Petersen, 2009) to exclude random shocks from countries and years in these linear models. All empirical regression models in our study are robust to autocorrelation and heteroscedasticity.

The hypothesis investigates the relationship between firm-level cost stickiness and the country-level statutory tax rates. In addition to the abovementioned control variables, the statutory tax rates of each country were added to the regression model for measures of both upward resource adjustment and downward resource adjustment. The extended regression model (1) is:

[10] We obtain data from 1986–2017 to accommodate variable creation. The lag values for two preceding years were required to calculate log-change ratios in empirical models, so the final sample for regression starts in 1988 instead of 1986.

$$
\begin{aligned}
\Delta lnXOPR_{n,i.t} = \beta_0 & \\
& + \big(\beta_1 + \theta_1 TAX_{n,t} + \upsilon_1 LossCF_{n,i,t} + \rho_1 REGEPL_{n,t} \\
& + \delta_1 TEMPEPL_{n,t} + \omega_1 LAW_{n,t} + \lambda_1 AINT_{n,i,t} + \mu_1 GDP_{n,t} \\
& + \varphi_1 EINT_{n,t}\big)\Delta lnSALE_{n,i,t} \\
& + \big(\beta_2 + \theta_2 TAX_{n,t} + \upsilon_2 LossCF_{n,i,t} + \rho_2 REGEPL_{n,t} \\
& + \delta_2 TEMPEPL_{n,t} + \omega_2 LAW_{n,t} + \lambda_2 AINT_{n,i,t} + \mu_2 GDP_{n,t} \\
& + \sigma_2 SUC_{n,i,t} + \varphi_2 EINT_{n,t}\big)DEC_{n,i,t}\Delta lnSALE_{n,i,t} + \theta_3 TAX_{n,t} \\
& + \upsilon_3 LossCF_{n,i,t} + \rho_3 REGEPL_{n,t} + \delta_3 TEMPEPL_{n,t} + \omega_3 LAW_{n,t} \\
& + \lambda_3 AINT_{n,i,t} + \mu_3 GDP_{n,t} + \varphi_3 EINT_{n,t} + \varepsilon_{n,i,t}
\end{aligned}
$$

where $TAX_{n,t}$ is the statutory tax rate of country *n* in year *t*; $LossCF_{n,i,t}$ is the dummy variable for loss carryforward, which equals 1 if the sum of net income of year *t* and year *t*-1 is smaller than zero, and zero otherwise; $REGEPL_{n,t}$ is the index of employment protection legislation (EPL) for regular employees in country *n* (OECD, 2018); $REGEPL_{n,t}$ ranges from zero to 6, and higher values correspond to stricter employment legislation protection for employees with regular contracts; $TEMPEPL_{n,t}$ is the index of employment protection legislation for temporary employees in country *n* (OECD, 2018); $TEMPEPL_{n,t}$ ranges from zero to 6, and higher values correspond to stricter employment legislation protection for employees with temporal contracts; $LAW_{n,t}$ is the law origin dummy, which equals 1 if the law origin of country *n* is common law, and 0 otherwise; asset intensity ($AINT_{i,t}$, the log ratio of total assets to sales), GDP growth (GDP_t, the real GDP growth of year *t*), employee intensity ($EINT_{i,t}$, the log ratio of employees to sales) and a successive sales decrease dummy (SUC, equals 1 if sales decrease both in year *t* and year *t*-1, and zero otherwise) are control variables proposed by Anderson and co-authors (2003); and $\varepsilon_{i,t}$ is the error term with the mean of zero and independent to explanatory variables. The hypothesis, which proposes that the level of cost stickiness is positively associated with statutory tax rates, is conditional on θ_2< zero.

Instead of using corporate income tax alone, the robustness check uses the ITCI as a proxy for the overall tax burden of a country. The ITCI was developed by the Tax Foundation organisation to evaluate the extent to which a country's tax system adheres to two important aspects of tax policy: competitiveness and neutrality. The competitive tax code means governments intend to keep marginal tax rates low to attract worldwide investments. The neutral tax code means governments aim to maximise income while minimising economic distortions. The ITCI measures more than 40 tax policy variables to determine whether a nation's tax system is neutral and competitive. Both tax rates and the structure of taxes are measured by these variables. Specifically, the ITCI considers a country's corporate taxes, individual income taxes, consumption taxes, property taxes, and the treatment of overseas income. A higher ITCI score represents a more tax-friendly environment (lower tax burden). Consistent with our hypothesis, we speculate that a lower tax burden (higher ITCI) is positively associated with a greater level of cost stickiness.

As the ITCI estimates the general tax burden of a country, in this robustness test, we also introduce governments' corporate tax revenue as a proxy for the corporate-level tax burden (Desai, Foley & Hines, 2006). Our hypothesis implies that cost stickiness is positively associated with governments' corporate tax income. The modified regression model (2) is:

$$
\begin{aligned}
\Delta lnXOPR_{n,i.t} = \beta_0 & \\
& + (\beta_1 + \theta_1 Tax\_Competitive_{n,t} + \nu_1 Tax\_Corporate_{n,t} \\
& + \upsilon_1 LossCF_{n,i,t} + \rho_1 REGEPL_{n,t} + \delta_1 TEMPEPL_{n,t} + \omega_1 LAW_{n,t} \\
& + \lambda_1 AINT_{n,i,t} + \mu_1 GDP_{n,t} + \varphi_1 EINT_{n,t})\Delta lnSALE_{n,i,t} \\
& + (\beta_2 + \theta_2 Tax\_Competitive_{n,t} + \nu_2 Tax\_Corporate_{n,t} \\
& + \upsilon_2 LossCF_{n,i,t} + \rho_2 REGEPL_{n,t} + \delta_2 TEMPEPL_{n,t} + \omega_2 LAW_{n,t} \\
& + \lambda_2 AINT_{n,i,t} + \mu_2 GDP_{n,t} + \sigma_2 SUC_{n,i,t} \\
& + \varphi_2 EINT_{n,t})DEC_{n,i,t}\Delta lnSALE_{n,i,t} + \theta_2 Tax\_Competitive_{n,t} \\
& + \nu_2 Tax\_Corporate_{n,t} + \upsilon_3 LossCF_{n,i,t} + \rho_3 REGEPL_{n,t} \\
& + \delta_3 TEMPEPL_{n,t} + \omega_3 LAW_{n,t} + \lambda_3 AINT_{n,i,t} + \mu_3 GDP_{n,t} \\
& + \varphi_3 EINT_{n,t} + \varepsilon_{n,i,t}
\end{aligned}
$$

where $Tax\_Competitive_{n,t}$ is the ITCI collected from the 7 ITCI report (Pomerleau, 2017). The ITCI ranges from zero to 100. A higher index indicates a lower tax burden. Following the study of Desai and co-authors (2006), $Tax\_Corporate_{n,t}$ is the annual country-level taxes on corporations and other enterprises as a percentage of GDP, collected from Pomerleau (2017); $LossCF_{n,i,t}$ is the dummy variable for loss carryforward, which equals 1 if the sum of net income of year t and year t-1 is smaller than zero, and 0 otherwise; $REGEPL_{n,t}$ is the index of employment protection legislation (EPL) for regular employees in country *n* (OECD, 2018); $REGEPL_{n,t}$ ranges from zero to 6, and higher values correspond to stricter employment legislation protection for employees with regular contracts; $TEMPEPL_{n,t}$ is the index of employment protection legislation for temporary employees in country *n* (OECD, 2018); $TEMPEPL_{n,t}$ ranges from zero to 6, and higher values correspond to stricter employment legislation protection for employees with temporal contracts; $LAW_{n,t}$ is the law origin dummy, which equals 1 if the law origin of country *n* is common law, and zero otherwise; $AINT_{i,t}$, $GDP_{n,t}$, $EINT_{i,t}$, and $SUC_{n,i,t}$ are control variables proposed by Anderson and co-authors (2003); and $\varepsilon_{i,t}$ is the error term with the mean of zero and independent to explanatory variables.

The main parameters of interest in the estimation are θ_2 and ν_2. The coefficient of θ_2 captures the relationship between the ITCI and cost stickiness. If a higher ITCI (lower tax burden) is associated with a lower degree of cost stickiness, the estimates of θ_2 should be significantly positive. The coefficient of ν_2 captures the relationship between country-level taxes on corporations and cost stickiness. If country-level taxes on corporations and other enterprises are positively associated with cost stickiness, the estimates of ν_2 should be significant and negative.

3.3 Interview methodology

In addition to our empirical analyses, we interviewed a couple of tax executives regarding whether tax rates impact their companies' cost management behaviour. Specifically, two members of our co-author team interviewed tax executives via Zoom. Interviewees received a list of interview questions prior to the interview. At the start of each interview, both authors confirmed that the interviewees agreed to be recorded. On average, the interviews were 28 minutes.

On average, the interviewees have 20.5 years of corporate-tax-related experience and work for consumer product companies with over USD 20 billion in sales. They represent the titles equivalent to a Vice President and oversee tax operations of their associated divisions. The interviews focus on corporate leaders' perceptions regarding tax considerations in cost management and adjustments. Table 7 (Appendix) sets out a list of the interview questions.

4. EMPIRICAL RESULTS

4.1 Descriptive statistics

Table 1 (Appendix) provides descriptive statistics for all variables in our analyses. We find sample means of 0.036 and 0.038 for $\Delta lnSALE$ and $\Delta lnXOPR$, respectively, which is consistent with values found in Banker, Byzalov and Chen (2013).[11] Furthermore, the mean on *DEC* suggests that approximately 37.9% of annual observations include a sales decrease in our sample. Lastly, the mean (median) on *TAX* indicates that the average (median) statutory tax rate in our sample is 0.364 (0.391). Though the mean and median are close in value for *TAX*, we find significant variation in tax rates among the 35 OECD countries in our sample. For example, the highest statutory tax rate in 2017 is 44% in Germany, while the lowest is 9% in Hungary. We also provide correlations in Table 2 (Appendix) but do not discuss them for brevity. However, the numerous significant univariate correlations between variables highlight the need to explore cost stickiness in a multivariate setting.

4.2 Multivariate results

Columns 1 and 2 of Table 3 (Appendix) provide the coefficients and t-statistics of our results that examine the association between statutory tax rates and cost stickiness using our full sample. We find a positive coefficient on $\Delta lnSALE$ (β_1 = 0.852, p-value < 0.01) and a negative coefficient on the interaction of $\Delta lnSALE$ and *DEC* (β_2 = -0.273, p-value < 0.05). These associations are consistent with firms releasing costs more slowly than committing costs. More specifically, costs exhibit a positive association with sales, but this association weakens when sales decrease. We suggest that firms' marginal tax rates will increase cost stickiness as they increase. The negative coefficient on the triple interaction of $\Delta lnSALE$, *DEC,* and *TAX* supports this conjecture (θ_2 = -0.352, p-value < 0.01). We interpret this finding as managers considering the after-tax cost instead of the before-tax cost when deciding whether to eliminate a cost. Because of the inverse association between marginal tax rates and after-tax costs, all else equal, managers will likely eliminate costs in lower-tax jurisdictions before eliminating costs in higher-tax jurisdictions. As for the associations on control variables, coefficients align with expectations and past research. Specifically, we show that successive sales decreases weaken the level of cost stickiness, while asset intensity, employee intensity, and GDP growth strengthen the level of cost stickiness.

US firms account for 56.21% of all firm-year observations in our full sample. To ensure that our results are not due to the large presence of US firms, we eliminate all US firms and provide these results in columns 3 and 4 of Table 3. Eliminating US firms results in 108,640 firm-year observations from 16,686 firms in 34 countries. Providing comfort that our results are not due to including US firms, we continue to find evidence of cost

[11] Though Banker, Byzalov and Chen (2013) do not report sample averages for $\Delta lnSALE$ and $\Delta lnXOPR$, they report averages by country. Their averages range from 0.022 (Japan) to 0.051 (Sweden) for $\Delta lnSALE$ and 0.030 (Germany) to 0.053 (Ireland) for $\Delta lnXOPR$. Our sample means fall within these ranges.

stickiness (β_2 = -0.129, p-values < 0.01). Furthermore, we continue to see evidence of marginal tax rates increasing cost stickiness (θ_2 = -0.172, p-value < 0.05).

5. ADDITIONAL ANALYSIS

To ensure our results are robust to various design choices, we replace *TAX* with the ITCI to proxy for firms' marginal tax rates. The ITCI, $Tax\_Competitive_{n,t}$, reflects the Tax Foundation's assessment of the competitiveness and neutrality of a country's tax system after considering 40 different tax-related aspects of the country (Pomerleau, 2017). A competitive tax system attempts to keep marginal tax rates low for corporations to attract worldwide investments. In contrast, a neutral system aims to maximise taxation while minimising economic distortions. Due to ITCI scores having an inverse association with marginal tax rates (i.e., higher ITCI scores represent friendlier tax environments with lower tax burdens), we expect a positive association on the triple interaction of $\Delta lnSALE$, *DEC*, and *Tax_Competitive*.[12] In addition to replacing *TAX*, we include a proxy for the country's reliance on corporate tax revenue (Desai et al., 2006). Specifically, we include *Tax_Corporate* as an additional control and measure it as the annual country-level taxes on corporations and other enterprises as a percentage of country *n*'s GDP. Similar to earlier expectations, we expect that a country's reliance on corporate taxes will increase cost stickiness, a negative coefficient of $\Delta lnSALE$, *DEC*, and *Tax_Corporate*.

Table 4 (Appendix) provides the results of this robustness test for our full sample and non-US firms subsample. Inferences are consistent with the conclusions of our main analysis. Specifically, we find that the triple interactions between $\Delta lnSALE$, *DEC*, and *Tax_Competitive* are positive and significant in both specifications (full sample: θ_2 = 0.002, p-values < 0.01; excluding US firms: θ_2 = 0.002, p-values < 0.01). These results are consistent with firms operating in tax-friendly environments (i.e., lower tax burdens) exhibiting less cost stickiness. In other words, companies operating in tax-friendly environments are more likely to release committed resources as sales decrease. Additionally, we find that the triple interactions between $\Delta lnSALE$, *DEC*, and *Tax_Corporate* are negative and significant (full sample: ν_2 = -0.008, p-values < 0.10; excluding US firms: ν_2 = -0.004, p-values < 0.10), which are consistent with higher tax reliance (possibly due to higher tax rates) being associated with greater cost stickiness.

Lastly, we consider whether endogeneity from omitted variables influences our results. In untabulated tests, we repeat our main analyses with year and country fixed effects and inferences remain the same. Therefore, we conclude that our results are not solely the product of unmodelled year or time-invariant country characteristics.

6. CONCLUSION

This study examines the association between statutory tax rates and cost stickiness. Prior literature widely discusses cost stickiness factors but omits the possibility of taxation playing any role. Our findings suggest that marginal tax rates, proxied by statutory tax rates, contribute to cost stickiness. Specifically, we find that cost stickiness increases as tax rates rise. The documented influence of tax on cost stickiness is economically significant and robust to alternative model specifications. This finding is likely the

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[12] Table 1 (Appendix) supports the inverse association by showing a correlation of -0.469 between *TAX* and *Tax_Competitive.*

product of managers using after-tax values in NPV calculations. Specifically, due to the inverse nature of after-tax costs with marginal tax rates, managers are more likely to retain unnecessary costs in high-tax environments due to the minimal benefits of releasing said costs; we provide anecdotal evidence from interviews with tax executives supporting this view.

Following the call of prior literature, this study provides further insights into the effects of tax policy on real corporate decisions. Prior research documents that resource adjustments are comprehensive decisions affected by numerous factors, such as potential adjustment costs, sales expectations, and managerial incentives. In addition to these factors, we propose and find that tax savings play an important role in optional resource adjustment decisions. Policymakers may want to consider this second-order effect when considering changes to their countries' tax structures.

Going forward, studies could examine the interaction between resource adjustment decisions and taxation in specific situations, such as financial constraints and acquisitions. Furthermore, studies could investigate the effect of corporate governance on the documented association between cost stickiness and tax obligations.

7. REFERENCES

Abel, A B & Eberly, J C 1994, 'A unified model of investment under uncertainty', *American Economic Review*, vol. 84, no. 5, pp. 1369-1384.

Anderson, M, Banker, R, Huang, R & Janakiraman, S 2007, 'Cost behavior and fundamental analysis of SG&A costs', *Journal of Accounting, Auditing and Finance*, vol. 22, no. 1, pp. 1-28.

Anderson, M C, Banker, R D & Janakiraman, S N 2003, 'Are selling, general, and administrative costs "sticky"?', *Journal of Accounting Research*, vol. 41, no. 1, pp. 47-63.

Atwood, T J, Omer, T C & Shelley, M K 1998, 'Before-tax versus after-tax earnings as performance measures in compensation contracts', *Managerial Finance*, vol. 24, no. 11, pp. 29-43.

Balakrishnan, R & Gruca, T S 2008, 'Cost stickiness and core competency: A note', *Contemporary Accounting Research*, vol. 25, no. 4, pp. 993-1006.

Balakrishnan, R, Labro, E & Soderstrom, N S 2014, 'Cost structure and sticky costs', *Journal of Management Accounting Research*, vol. 26, no. 2, pp. 91-116.

Banker, R D & Byzalov, D 2014, 'Asymmetric cost behavior', *Journal of Management Accounting Research*, vol. 26, no. 2, pp. 43-79.

Banker, R D, Byzalov, D & Chen, L (T) 2013, 'Employment protection legislation, adjustment costs and cross-country differences in cost behavior', *Journal of Accounting and Economics*, vol. 55, no. 1, pp. 111-127.

Banker, R D, Byzalov, D, Ciftci, M & Mashruwala, R 2014, 'The moderating effect of prior sales changes on asymmetric cost behavior', *Journal of Management Accounting Research*, vol. 26, no. 2, pp. 221-242.

Banker, R D, Byzalov, D & Threinen, L 2013, 'Determinants of international differences in asymmetric cost behavior'. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2312772.

Banker, R D & Chen, L (T) 2006, 'Predicting earnings using a model based on cost variability and cost stickiness', *The Accounting Review*, vol. 81, no. 2, pp. 285-307.

Bauer, A M 2016, 'Tax avoidance and the implications of weak internal controls', *Contemporary Accounting Research*, vol. 33, no. 2, pp. 449-486.

Bentolila, S & Bertola, G 1990, 'Firing costs and labour demand: How bad is Eurosclerosis?', *Review of Economic Studies*, vol. 57, no. 3, pp. 381-402.

Berger, P G 1993, 'Explicit and implicit tax effects of the R&D tax credit', *Journal of Accounting Research*, vol. 31, no. 2, pp. 131-171.

Blatter, M, Muehlemann, S & Schenker, S 2012, 'The costs of hiring skilled workers', *European Economic Review*, vol. 56, no. 1, pp. 20-35.

Chen, C X, Lu, H & Sougiannis, T 2012, 'The agency problem, corporate governance, and the asymmetrical behavior of selling, general, and administrative costs', *Contemporary Accounting Research*, vol. 29, no. 1, pp. 252-282.

Deloitte 2024, 'International tax highlights'. Available at: https://dits.deloitte.com/TaxGuides.

Desai, M A, Foley, C F & Hines, J R, Jr 2006, 'The demand for tax haven operations', *Journal of Public Economics*, vol. 90, no. 3, pp. 513-531.

Dierynck, B, Landsman, W R & Renders, A 2012, 'Do managerial incentives drive cost behavior? Evidence about the role of the zero earnings benchmark for labor cost behavior in private Belgian firms", *The Accounting Review*, vol. 87, no. 4, pp. 1219-1246.

Ernst & Young 2023, 'The impact of the 2024 Japan tax reforms for inbound businesses', 27 December. Available at: https://www.ey.com/en_jp/ey-japan-tax-library/tax-alerts/2023/tax-alerts-12-27.

Guidry, F, Leone, A J & Rock, S 1999, 'Earnings-based bonus plans and earnings management by business-unit managers', *Journal of Accounting and Economics*, vol. 26, no. 1-3, pp. 113-142.

Hanlon, M & Heitzman, S 2010, 'A review of tax research', *Journal of Accounting and Economics*, vol. 50, no. 2-3, pp. 127-178.

Harris, J & O'Brien, W 2018, 'US worldwide taxation and domestic mergers and acquisitions', *Journal of Accounting and Economics*, vol. 66, no. 2-3, pp. 419-438.

Hite, G L & Long, M S 1982, 'Taxes and executive stock options', *Journal of Accounting and Economics*, vol. 4, no. 1, pp. 3-14.

Kahn, L M & Sherer, P D 1990, 'Contingent pay and managerial performance', *Industrial and Labor Relations Review*, vol. 43, no. 3 (special issue), pp. 107S-120S.

Kama, I & Weiss, D 2013, 'Do earnings targets and managerial incentives affect sticky costs?', *Journal of Accounting Research*, vol. 51, no. 1, pp. 201-224.

Lee, W-J, Pittman, J & Saffar, W 2020, 'Political uncertainty and cost stickiness: Evidence from national elections around the world', *Contemporary Accounting Research*, vol. 37, no. 2, pp. 1107-1139.

Organisation for Economic Co-operation and Development (OECD) 2018, 'OECD indicators of employment protection'. Available at: http://www.oecd.org/els/emp/oecdindicatorsofemploymentprotection.htm.

Petersen, M A 2009, 'Estimating standard errors in finance panel data sets: Comparing approaches', *Review of Financial Studies*, vol. 22, no. 1, pp. 435-480.

Phillips, J D 2003, 'Corporate tax-planning effectiveness: The role of compensation-based incentives', *The Accounting Review*, vol. 78, no. 3, pp. 847-874.

Pomerleau, K 2017, *International tax competitiveness index 2016*, Tax Foundation, Washington, DC. Available at: https://taxfoundation.org/research/all/global/2016-international-tax-competitiveness-index/.

PricewaterhouseCoopers (PwC) (2024), 'Worldwide tax summaries'. Available at: https://taxsummaries.pwc.com/.

Rouxelin, F, Wongsunwai, W & Yehuda, N 2018, 'Aggregate cost stickiness in GAAP financial statements and future unemployment rate', *The Accounting Review*, vol. 93, no. 3, pp. 299-325.

Scholes, M A & Wolfson, M A 1992, *Taxes and business strategy: A planning approach*, Prentice-Hall, Englewood Cliffs, NJ.

Shackelford, D A & Shevlin, T 2001, 'Empirical tax research in accounting', *Journal of Accounting and Economics*, vol. 31, no. 1-3, pp. 321-387.

Weiss, D 2010, 'Cost behavior and analysts' earnings forecasts', *The Accounting Review*, vol. 85, no. 4, pp. 1441-1471.

8. APPENDICES

Table 1: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Q1	Median	Q3
$\Delta lnSALE_{n,i,t}$	248,093	0.036	0.143	-0.044	0.034	0.121
$\Delta lnXOPR_{n,i,t}$	248,093	0.038	0.146	-0.043	0.035	0.121
$DEC_{n,i,t}$	248,093	0.379	0.485	0.000	0.000	1.000
$TAX_{n,t}$	248,093	0.364	0.068	0.325	0.391	0.395
$LossCF_{n,i,t}$	248,093	0.191	0.393	0.000	0.000	0.000
$Tax\_Competitive_{n,t}$	248,093	59.500	8.937	53.700	53.700	61.400
$Tax\_Corporate_{n,t}$	248,093	11.370	2.900	9.754	11.430	12.780
$LAW_{n,t}$	248,093	0.591	0.492	0.000	1.000	1.000
$AINT_{n,i,t}$	248,093	0.174	0.859	-0.369	0.026	0.509
$GDP_{n,t}$	248,093	2.227	2.019	1.420	2.532	3.675
$EINT_{n,i,t}$	248,093	-6.544	2.220	-7.137	-5.700	-5.110
$REGEPL_{n,t}$	248,093	1.171	0.994	0.260	1.100	1.700
$TEMPEPL_{n,t}$	248,093	1.236	1.412	0.250	0.250	1.690

This Table presents the descriptive statistics for all the variables included in the main sample. The variable definitions are presented in Table 5 (Appendix).

Table 2: Pearson Correlations

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1)	$\Delta lnSALE_{n,i,t}$	1.000												
(2)	$\Delta lnXOPR_{n,i,t}$	**0.850**	1.000											
(3)	$DEC_{n,i,t}$	**-0.755**	**-0.649**	1.000										
(4)	$TAX_{n,t}$	0.003	0.001	**-0.012**	1.000									
(5)	$LossCF_{n,i,t}$	**-0.195**	**-0.185**	**0.193**	**-0.006**	1.000								
(6)	$Tax\_Competitive_{n,t}$	**-0.019**	**-0.020**	**0.013**	**-0.469**	**-0.051**	1.000							
(7)	$Tax\_Corporate_{n,t}$	**0.045**	**0.056**	**-0.027**	**-0.009**	**-0.008**	**0.173**	1.000						
(8)	$LAW_{n,t}$	**0.046**	**0.050**	**-0.016**	**0.169**	**0.076**	**-0.298**	**0.361**	1.000					
(9)	$AINT_{n,i,t}$	**-0.025**	**-0.013**	**0.031**	**0.049**	**-0.051**	**-0.139**	**0.019**	**0.146**	1.000				
(10)	$GDP_{n,t}$	**0.178**	**0.173**	**-0.161**	**-0.061**	**-0.053**	**0.014**	**0.159**	**0.226**	**0.010**	1.000			
(11)	$EINT_{n,i,t}$	**0.017**	**0.029**	**0.016**	**-0.098**	**0.077**	**-0.177**	**0.379**	**0.684**	**0.064**	**0.262**	1.000		
(12)	$REGEPL_{n,t}$	**-0.038**	**-0.039**	**0.019**	**-0.433**	**-0.078**	**0.448**	**-0.257**	**-0.868**	**-0.151**	**-0.143**	**-0.447**	1.000	
(13)	$TEMPEPL_{n,t}$	**-0.033**	**-0.034**	**0.017**	**-0.237**	**-0.057**	**0.271**	**-0.172**	**-0.798**	**-0.102**	**-0.145**	**-0.357**	**0.848**	1.000

This Table presents the Pearson correlations of select variables used in this study. Correlations in bold are significant at the 1% level. The variable definitions are described in Table 5 (Appendix).

Table 3: The Association Between Statutory Tax Rates and Cost Stickiness

		Full Sample		Excluding US Firms	
		(1)	(2)	(3)	(4)
	Exp.	Coef.	t-stat	Coef.	t-stat
$\Delta lnSALE_{n,i,t}$	+	0.852***	(21.48)	0.858***	(19.42)
$\Delta lnSALE_{n,i,t}$ * $TAX_{n,t}$		0.178***	(2.88)	0.110	(1.47)
$\Delta lnSALE_{n,i,t}$ * $LossCF_{n,i,t}$		-0.138***	(-13.28)	-0.131***	(-3.24)
$\Delta lnSALE_{n,i,t}$ * $REGEPL_{n,t}$		0.021**	(2.01)	0.019*	(1.86)
$\Delta lnSALE_{n,i,t}$ * $TEMPEPL_{n,t}$		-0.007	(-1.22)	-0.001	(-0.20)
$\Delta lnSALE_{n,i,t}$ * $LAW_{n,t}$		-0.011	(-0.40)	0.009	(0.36)
$\Delta lnSALE_{n,i,t}$ * $AINT_{n,i,t}$		0.004	(0.26)	-0.071***	(-5.12)
$\Delta lnSALE_{n,i,t}$ * $GDP_{n,t}$		0.006***	(2.62)	0.002	(0.51)
$\Delta lnSALE_{n,i,t}$ * $EINT_{n,i,t}$		0.003	(0.98)	0.001	(0.51)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$	-	**-0.273****	**(-2.22)**	**-0.129*****	**(-2.73)**
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $TAX_{n,t}$	-	**-0.352*****	**(-2.61)**	**-0.172****	**(-2.58)**
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $LossCF_{n,i,t}$		0.029**	(2.58)	0.045	(1.17)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $REGEPL_{n,t}$		0.006	(0.41)	-0.007	(-0.58)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $TEMPEPL_{n,t}$		0.011	(0.85)	-0.003	(-0.42)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $LAW_{n,t}$		0.108	(1.50)	0.013	(0.64)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $AINT_{n,i,t}$	-	-0.111***	(-8.49)	-0.054**	(-2.38)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $GDP_{n,t}$	-	-0.012***	(-6.92)	-0.006	(-1.47)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $SUC_{n,i,t}$	+	0.164***	(7.33)	0.114***	(17.49)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $EINT_{n,i,t}$	-	-0.030***	(-2.60)	-0.015***	(-5.53)
Main Effects on Controls		Yes		Yes	
Constant		Yes		Yes	
Observations		248,093		108,640	
Adj. R-Square		0.740		0.807	

The sample covers listed firms in 35 OECD countries from 1988 to 2017. The variable definitions are presented in Table 5 (Appendix). The t-statistics are computed using two-way clustering by country and year. *, ** and *** indicate significance at 10%, 5% and 1% levels, respectively, based on two-tailed tests. Model (1) is as follows:

$$
\begin{aligned}
\Delta lnXOPR_{n,i.t} = \beta_0 &+ \big(\beta_1 + \theta_1 TAX_{n,t} + \upsilon_1 LossCF_{n,i,t} + \rho_1 REGEPL_{n,t} + \delta_1 TEMPEPL_{n,t} + \omega_1 LAW_{n,t} + \lambda_1 AINT_{n,i,t} \\
&+ \mu_1 GDP_{n,t} + \varphi_1 EINT_{n,t}\big)\Delta lnSALE_{n,i,t} \\
&+ \big(\beta_2 + \theta_2 TAX_{n,t} + \upsilon_2 LossCF_{n,i,t} + \rho_2 REGEPL_{n,t} + \delta_2 TEMPEPL_{n,t} + \omega_2 LAW_{n,t} + \lambda_2 AINT_{n,i,t} \\
&+ \mu_2 GDP_{n,t} + \sigma_2 SUC_{n,i,t} + \varphi_2 EINT_{n,t}\big)DEC_{n,i,t}\Delta lnSALE_{n,i,t} + \theta_3 TAX_{n,t} + \upsilon_3 LossCF_{n,i,t} + \rho_3 REGEPL_{n,t} \\
&+ \delta_3 TEMPEPL_{n,t} + \omega_3 LAW_{n,t} + \lambda_3 AINT_{n,i,t} + \mu_3 GDP_{n,t} + \varphi_3 EINT_{n,t} + \varepsilon_{n,i,t}
\end{aligned}
$$

Table 4: The Association Between Tax System Competitiveness and Cost Stickiness

		Full Sample		Excluding US Firms	
		(1)	(2)	(3)	(4)
	Exp.	Coef.	t-stat	Coef.	t-stat.
$\Delta lnSALE_{n,i,t}$	+	0.978***	(21.89)	1.024***	(16.74)
$\Delta lnSALE_{n,i,t}$ * $Tax\_Competitive_{n,t}$		-0.001***	(-2.92)	-0.002***	(-3.08)
$\Delta lnSALE_{n,i,t}$ * $Tax\_Corporate_{n,t}$		0.002	(0.98)	-0.000	(-0.05)
$\Delta lnSALE_{n,i,t}$ * $LossCF_{n,i,t}$		-0.141***	(-13.15)	-0.134***	(-3.13)
$\Delta lnSALE_{n,i,t}$ * $REGEPL_{n,t}$		0.017**	(2.32)	0.009	(1.03)
$\Delta lnSALE_{n,i,t}$ * $TEMPEPL_{n,t}$		-0.008	(-1.44)	-0.001	(-0.21)
$\Delta lnSALE_{n,i,t}$ * $LAW_{n,t}$		-0.026	(-0.91)	0.001	(0.06)
$\Delta lnSALE_{n,i,t}$ * $AINT_{n,i,t}$		0.004	(0.27)	-0.073***	(-5.34)
$\Delta lnSALE_{n,i,t}$ * $GDP_{n,t}$		0.006***	(2.61)	0.002	(0.59)
$\Delta lnSALE_{n,i,t}$ * $EINT_{n,i,t}$		0.003	(1.03)	0.003	(1.04)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$	-	-0.416***	(-3.44)	-0.267***	(-3.79)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $Tax\_Competitive_{n,t}$	+	**0.002*****	**(3.90)**	**0.002*****	**(3.58)**
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $Tax\_Corporate_{n,t}$	**-**	**-0.008***	**(-1.89)**	**-0.004***	**(-1.94)**
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $LossCF_{n,i,t}$		0.035***	(3.18)	0.051	(1.27)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $REGEPL_{n,t}$		0.016	(1.00)	0.005	(0.70)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $TEMPEPL_{n,t}$		0.007	(0.65)	-0.005***	(-23.45)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $LAW_{n,t}$		0.120	(1.40)	0.016	(1.00)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $AINT_{n,i,t}$	-	-0.112***	(-8.40)	-0.053**	(-2.44)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $GDP_{n,t}$	-	-0.010***	(-5.63)	-0.006	(-1.40)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $SUC_{n,i,t}$	+	0.162***	(7.38)	0.112***	(14.80)
$\Delta lnSALE_{n,i,t}$ * $DEC_{n,i,t}$ * $EINT_{n,i,t}$	-	-0.025**	(-2.17)	-0.013***	(-5.72)
Main Effects on Controls		Yes		Yes	
Constant		Yes		Yes	
Observations		248,093		108,640	

Adj. R-Square	0.741	0.810

The sample covers listed firms in 35 OECD countries from 1988 to 2017. The variable definitions are presented in Table 5 (Appendix). The t-statistics are computed using two-way clustering by country and year. *, ** and *** indicate significance at 10%, 5% and 1% levels, respectively, based on two-tailed tests. Model (2) is as follows:

$$\begin{aligned}\Delta lnXOPR_{n,i.t} = {} & \beta_0 \\ & + \left(\beta_1 + \theta_1 Tax\_Competitive_{n,t} + \nu_1 Tax\_Corporate_{n,t} + \upsilon_1 LossCF_{n,i,t} + \rho_1 REGEPL_{n,t} + \delta_1 TEMPEPL_{n,t}\right. \\ & \left. + \omega_1 LAW_{n,t} + \lambda_1 AINT_{n,i,t} + \mu_1 GDP_{n,t} + \varphi_1 EINT_{n,t}\right)\Delta lnSALE_{n,i,t} \\ & + \left(\beta_2 + \theta_2 Tax\_Competitive_{n,t} + \nu_2 Tax\_Corporate_{n,t} + \upsilon_2 LossCF_{n,i,t} + \rho_2 REGEPL_{n,t}\right. \\ & \left. + \delta_2 TEMPEPL_{n,t} + \omega_2 LAW_{n,t} + \lambda_2 AINT_{n,i,t} + \mu_2 GDP_{n,t} + \sigma_2 SUC_{n,i,t} + \varphi_2 EINT_{n,t}\right) DEC_{n,i,t}\Delta lnSALE_{n,i,t} \\ & + \theta_2 Tax\_Competitive_{n,t} + \nu_2 Tax\_Corporate_{n,t} + \upsilon_3 LossCF_{n,i,t} + \rho_3 REGEPL_{n,t} + \delta_3 TEMPEPL_{n,t} \\ & + \omega_3 LAW_{n,t} + \lambda_3 AINT_{n,i,t} + \mu_3 GDP_{n,t} + \varphi_3 EINT_{n,t} + \varepsilon_{n,i,t}\end{aligned}$$

Table 5: Variable Descriptions

Variable	Definition
$SALE_{n,i,t}$	sales revenue for firm *i* in country *n* in year *t*, deflated to control for inflation
$XOPR_{n,i,t}$	operating costs for firm *i* in country *n* in year *t*, deflated to control for inflation
$DEC_{n,i,t}$	dummy variable equal to one for sales decreases from year *t*-1
$TAX_{n,,t}$	the statutory tax rate in country n in year *t*
$Tax\_Competitive_{n,t}$	is the international tax competitive index, collected from the 2016 international tax competitive index report (Pomerleau, 2017). The international tax competitive index ranges from 0 to 100. A higher index indicates a lower level of tax burden
$Tax\_Corporate_{n,t}$	is the annual country-level taxes on corporations and other enterprises as a percentage of GDP, collected from Pomerleau (2017)
$LossCF_{n,i,t}$	is the dummy variable for loss carryforward, which equals one if the sum of net income of year *t* and year *t*-1 is smaller than zero, and 0 otherwise
$REGEPL_{n,t}$	index of employment protection legislation (EPL) for regular employees in country *n* (OECD, 2018). $REGEPL_n$ ranges from 0 to 6, and higher values correspond to stricter employment legislation protection for employees with regular contracts
$TEMPEPL_{n,t}$	index of employment protection legislation for temporary employees in country *n* (OECD, 2018). $TEMPEPL_n$ ranges from 0 to 6, and higher values correspond to stricter employment legislation protection for employees with temporal contracts
$LAW_{n,t}$	is the law origin dummy, which equals 1 if the law origin of country *n* is common law, and 0 otherwise
$AINT_{n,i,t}$	log-ratio of total assets to sales
$GDP_{n.i.t}$	percentage growth in real gross national product (GDP) during year *t*
$EINT_{n,i,t}$	log-ratio of total number of employees to sales
$SUC_{n,i,t}$	successive decrease dummy that takes 1 if $\mathrm{REV}_{i,t-1}<\mathrm{REV}_{i,t-2}$, and 0 otherwise

Table 6: Financial Reporting and Tax System Characteristics

Countries	Accounting Principles	Country Specific Deduction Treatment – Excerpts from Deloitte and PwC Guides
Australia	IFRS	'Business expenses are tax deductible if they are necessarily incurred in gaining or producing assessable income' (Deloitte, 2024).
Austria	IFRS	'Normal business expenses may be deducted in computing taxable income' (Deloitte, 2024).
Belgium	IFRS	'Companies may deduct all business expenses when calculating taxable income, subject to the general conditions that they relate to the taxable period, sufficient documentation is available, and the expenses are "legitimate" (i.e., incurred or borne to obtain or retain taxable income), and at arm's length' (Deloitte, 2024).
Canada	IFRS	'Business expenses that are reasonable and paid out to earn income are deductible for income tax purposes unless disallowed by a specific provision in the Income Tax Act. Some expenses are deductible subject to limitation (e.g., charitable donations, entertainment expenses, the cost of providing an automobile to employees). Deduction of capital expenditures is specifically prohibited, but special provisions may allow depreciation or amortization of these expenditures' (PwC, 2024).
Chile	IFRS	'Direct costs of goods and services and the necessary expenses incurred in earning that income are deductible' (Deloitte, 2024).
Czech Republic	IFRS	'All expenses incurred to generate, ensure, and maintain taxable income are deductible if documented by the taxpayer, subject to limits specified in the corporate income tax law and in specific legislation' (Deloitte, 2024). 'There are special rules regarding tax deductibility of special types of expenses (e.g., tax depreciation and amortization, interest expenses)' (PwC, 2024).
Denmark	IFRS	'Normal business expenses may be deducted when computing taxable income' (Deloitte, 2024).
Estonia	IFRS	'Distributable profits are determined based on financial statements drawn up in accordance with Estonian GAAP or IAS/IFRS, and there are no adjustments to accounting profits for tax purposes (e.g., tax depreciation, tax loss carryforward or carryback)' (PwC, 2024).
Finland	IFRS	'Normal business expenses may be deducted in computing taxable income' (Deloitte, 2024).

Countries	**Accounting Principles**	**Country Specific Deduction Treatment – Excerpts from Deloitte and PwC Guides**
France	IFRS	‘Normal business expenses may be deducted in computing taxable income’ (Deloitte, 2024).
Germany	IFRS	‘Business expenses may be deducted in computing taxable income’ (Deloitte, 2024).
Greece	IFRS	‘Normal business expenses are deductible for tax purposes, provided they are not included on a list of nondeductible expenses, are incurred for the benefit of the entity, reflect real transactions that are recorded in the books in the year incurred, and are supported by the necessary tax records and sufficient documentation’ (Deloitte, 2024).
Hungary	IFRS	‘In general, costs and expenses incurred in relation to the taxpayer’s income-generating business activity are deductible for corporate income tax purposes’ (PwC, 2024).
Iceland	IFRS	‘Deductible operating expenses are comprised of all the expenses and costs needed to provide, insure, and maintain income (e.g., interest expense, employee expense, travel expense, insurance expense)’ (PwC, 2024).
Ireland	IFRS	‘In general, arm’s-length expenses that are incurred wholly and exclusively for the purposes of the trade are tax-deductible’ (PwC, 2024).
Israel	IFRS	‘Costs incurred by a branch or a company are deductible as a business expense for tax purposes where they are incurred “wholly and exclusively” in the production of income’ (PwC, 2024).
Italy	IFRS	‘Expenses reported in the statutory financial statement are deductible’ (PwC, 2024)
Japan	GAAP (Japanese)	‘The taxable income in each accounting period is the excess of gross taxable revenue over total deductible business expenses’ (Deloitte, 2024).
Korea	IFRS	‘In general, expenses incurred in the ordinary course of business are deductible, subject to the requirements for the maintenance of support documents’ (PwC, 2024).
Latvia	IFRS	‘Distributable profits are measured according to financial statements drawn up in accordance with Latvian GAAP or IAS/IFRS, and there are no adjustments to accounting profits for tax purposes (e.g., tax depreciation/capital allowances, tax loss carryforward/carryback)’ (PwC, 2024).
Luxembourg	IFRS	‘Business expenses are deductible, exemption under certain conditions’ (Deloitte, 2024).
Mexico	IFRS	‘Normal business expenses may be deducted in computing taxable income’ (Deloitte, 2024). ‘However, deductions for certain business expenses are limited (e.g., business meals, use of company-owned cars)’ (PwC, 2024).

Countries	**Accounting Principles**	**Country Specific Deduction Treatment – Excerpts from Deloitte and PwC Guides**
Netherlands	IFRS	‘In principle, all costs relating to the business are deductible’ (Deloitte, 2024).
New Zealand	IFRS	‘Assessable income from carrying on a business normally includes gross income from the sale of goods, the provision of services, most dividends, interest, and royalties. Deductions generally are allowed for expenses or losses incurred in deriving assessable income or in the course of carrying on a business for the purpose of deriving assessable income for any income year. Deductions (including interest) in relation to residential rental properties may be limited’ (Deloitte, 2024).
Norway	IFRS	‘Normal business expenses may be deducted in computing taxable income’ (Deloitte, 2024).
Poland	IFRS	‘Normal business expenses (including interest and other financing costs) may be deducted in computing taxable income with some limitations’ (Deloitte, 2024).
Portugal	IFRS	‘Expenses are deductible to the extent they are necessary for the purpose of generating taxable income and are properly documented’ (Deloitte, 2024).
Slovak Republic	IFRS	‘Normal business expenses may be deducted in computing the tax base’ (Deloitte, 2024).
Slovenia	IFRS	‘Taxable income comprises all income and profits from a company’s activities, reduced by expenses related to those activities (provided the expenses are properly documented)’ (Deloitte, 2024).
Spain	IFRS	‘Taxable income includes worldwide profits (with no distinction made between ordinary business income and any other type of income) less deductible expenses and is based on the income disclosed in the individual company’s financial statements. Some expenses are not considered deductible for tax purposes (e.g., restrictions may apply to the deductibility of financing expenses, certain provisions, certain employee benefits, penalties, etc.)’ (Deloitte, 2024).
Sweden	IFRS	‘Expenses incurred in obtaining or safeguarding income subject to tax normally are deductible’ (Deloitte, 2024).
Switzerland	GAAP (Swiss)	‘Generally, all business expenses that are booked in the statutory accounts are tax deductible, assuming they are economically/commercially justified from a tax perspective’ (PwC, 2024).
Türkiye	IFRS	‘Turkish Corporate income tax legislation allows a deduction for all the “ordinary and necessary” expenses paid or incurred for the generation and sustenance of income during the taxable year in carrying on any trade or business’ (PwC, 2024).

Countries	**Accounting Principles**	**Country Specific Deduction Treatment – Excerpts from Deloitte and PwC Guides**
United Kingdom	IFRS	'Normal business expenses may be deducted in computing taxable income, provided these are not capital expenditure' (Deloitte, 2024).
United States	GAAP (US)	'Domestic corporations are taxed on nearly all gross income (including, e.g., income from a business, compensation for services, dividends, interest, royalties, rents, fees and commissions, gains from dealings in property, income from a partnership), from whatever source derived (unless a specific exemption or exclusion applies), less allowable deductions for depreciation, amortization, expenses, losses, and certain other items' (Deloitte, 2024).

Notes: country and tax characteristics used in this Table were obtained from https://www.dits.deloitte.com/#TaxGuides and https://taxsummaries.pwc.com/.

Table 7: Interview Questions

Demographics

1. What is your job title?
2. How many years of corporate-tax related experience do you have?
3. What size is the company you currently work for (e.g., international, national, regional, local)?
4. What is the industry of your company?

Tax-related Questions

5. Could different statutory tax rates impact your company in terms of cost management? If so, how do different statutory tax rates impact cost stickiness?[*]
6. From a decision-making point of view, how would a higher or lower statutory tax rate change the decision rule for the optimal level of cost stickiness for your company?
7. Are the operational decisions resulting in asymmetric cost behaviour (e.g., cost stickiness) made at the corporate level or at the divisional level for your company?
8. If statutory tax rates affect your company's cost adjustments, do you approach this issue from the accounting treatment angle or the tax treatment angle? What are your major considerations (e.g., stable earnings or tax savings)?
9. Could you list the top three types of costs that are the most sensitive to changes in the levels of statutory tax rate?

[*] Cost stickiness describes the asymmetric behaviour between costs and activities, demonstrating that companies decrease costs slower when sales decrease as compared to increasing costs in response to an increase in sales.

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An experimental analysis of the impact of tax policy on taxpayer perceptions and political views

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Abstract

Using 72 Volunteer Income Tax Assistance (VITA) program participants, we collected pre- and post-test data to analyse the impact of the *Tax Cuts and Jobs Act of 2017* (TCJA) tax code changes on taxpayer and vote perceptions. Pre-test data provided a baseline on participants' political views and beliefs of the tax system, while post-test data provided insights as to how the changed tax code and its potential benefits might have changed perceptions. Further, we analysed framing effects by randomly assigning participants to a treatment that either referred to the TCJA by name or referred to it as the 'Trump Tax Cuts'. Our data suggest that in the pre-test, subjects that identify as Republican have greater approval of the TCJA when it is framed as 'Trump Tax Cuts' as opposed to 'TCJA'. The framing had no impact on Democrats either in the pre-test or post-test survey data. For Independents the framing had no impact in the pre-test survey but once the impact of the tax law was revealed in the post-test survey, the evidence suggests that Independents who see the 'Trump Tax Cuts' found the Act significantly less favourably than Independents who saw the TCJA frame. Lastly, the data also supports the idea that the more someone benefits from the TCJA the more positively they see the Act.

Keywords: Tax Cuts and Jobs Act, taxpayer attitudes, President Trump, political orientation, framing effects

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1. INTRODUCTION

The *Tax Cuts and Jobs Act of 2017* (TCJA) represented the most significant changes to the tax code since the Reagan administration (Chalk, Keen & Perry, 2018). Among several campaign promises, then-candidate Donald Trump proposed several key tax reforms that centered around a tax cut (Qiu, 2016). It could be argued that economic and tax issues were critical issues in Donald Trump's surprise victory in the 2016 US presidential election, as the economy was listed as the top issue to registered voters prior to the election (Pew Research Center, 2016).

The Trump administration argued that the overhaul of the tax code should be targeted at several key objectives:

- simplifying the system;
- making the US business tax competitive internationally;
- providing low- and middle-income tax relief;
- avoiding tax relief to wealthy individuals;
- lowering statutory tax rates;
- broadening tax bases, and
- creating a more equitable system

(Chalk et al., 2018).

Analysis of the TCJA has yielded mixed results to date, though literature tends to focus on the impact of the TCJA on tax revenue and the impacts on corporations. While much has been written about the TCJA and associated planning and actions for corporations, little research has focused on the individual taxpayer perceptions of and reactions to the TCJA specifically. Additionally, political science research provides insights related to taxpayer reactions to tax legislation in general. Again, specific reactions to the TCJA are largely absent from the literature. This article attempts to bridge a gap in the literature related to the political impacts of tax legislation and its ability or inability to impact voter perceptions of a political candidate.

Recently, many of the provisions of the TCJA that were set to expire (and were part of the TCJA Permanency Act and the One Big Beautiful Bill[1]) were made permanent (see also Wamhoff, Hughes & Gardner, 2023). The present research provides individual taxpayer reactions that should be considered related to the debate and considerations of the One Big Beautiful Bill. This research adds further significance related to political strategy and its impacts on tax legislation and voter behaviour.

Now serving his second term after winning the 2024 presidential election, President Donald Trump's tax policy is again in the news. Of particular interest is the fact that the

[1] See US House Committee on Ways and Means, 'The One, Big, Beautiful Bill', available at https://waysandmeans.house.gov/wp-content/uploads/2025/05/The-One-Big-Beautiful-Bill-Section-by-Section.pdf.

TCJA reforms were set to expire at the end of 2025 (Tax Foundation, 2024).[2] President Trump has expressed his commitment to making these tax cuts permanent during his new administration (Lai & Jacobs, 2024), a feat that was largely accomplished with the *One, Big, Beautiful Bill Act 2025*.

2. LITERATURE REVIEW: TCJA AND INDIVIDUAL TAXPAYERS

The United States has not seen a tax Act change as impactful as the *Tax Cuts and Jobs Act* (TCJA) since 1986 (Gale et al., 2018a). The TCJA brought broad and substantial changes to the tax rates, tax brackets and deductions, and some simplification that saw fewer taxpayers itemising following this dramatic change to the US tax code (Barro & Furman, 2018). Many of the provisions of the TCJA were intended to simplify the individual tax reporting requirements, though many of the provisions of the Act were not adopted by states, thereby increasing the overall compliance requirements (Field, 2021).

Analysts have argued that the TCJA has had a mixed impact on individual taxpayers. Gale and co-authors (2018a) asserted that the TCJA would: (1) provide short-term stimulation to the economy; (2) have small long-term growth impacts; (3) reduce federal revenues; (4) add to inequalities in the distribution of after-tax income; (5) simplify taxes in some ways but add complexity/compliance issues in others, and (6) reduce contributions to charities as well as health insurance coverage. Kallen and Mathur (2021) concluded that the Act would result in short-term increases in after-tax income for all taxpayers. They further assert that if provisions are allowed to expire in 2026 (as scheduled), there would be long-term decreases in after-tax income for lower-income households. However, their general conclusion is that the Act is progressive in nature (Kallen & Mathur, 2021).

As the press often noted after the TCJA's passage, Taite (2020) concludes that the Act follows historical trends of wealth inequities. The author defines wealth inequity as the ability to accumulate wealth. Generally, the conclusion is that the TCJA exacerbates inequities (Taite, 2020). As an example, Weeks McCormack (2020) compared how parents of minor children were taxed immediately before and after the TCJA. The author finds the TCJA favoured sole-earning caregivers over dual-earning and unmarried caregivers. The Act failed to address inequities in prior law and created new inequities (Weeks McCormack, 2020).

The TCJA has also been studied in relation to political factors and motivations. Altig and co-authors (2020) found that the TCJA resulted in more benefits to states whose voters vote primarily for the Republican Party. Republican states tend to have lower tax rates than Democrat states; therefore, the state and local tax (SALT) deduction limitation has a greater negative impact on Democrat states (Altig et al., 2020). Wu (2022) notes that there has been a debate over the SALT deduction limitation in the TCJA because many high-income and high-tax states such as California and New York have been hit the most by the limitation. However, the author continues by stating that even when Democrats gained control of the House, Senate, and White House, the call

[2] See Tax Foundation, 'Where do the candidates stand on taxes?', https://taxfoundation.org/research/federal-tax/2024-tax-plans/ (accessed 13 January 2024).

for repeal of the deduction limitation failed because many members of Congress believed wealthy taxpayers benefit the most from SALT deductions (Wu, 2022).

Researchers have found that most taxpayers overstate their actual average tax rate (Ballard & Gupta, 2018; Rees-Jones & Taubinsky, 2020; Williamson, 1976). Blaufus and co-authors (2015) also find that even more taxpayers are unaware of their marginal tax rates than their average tax rates. However, studies have found that misperceptions decrease with higher knowledge and cognitive capacity in individual taxpayers (Blaufus et al., 2015; Gensemer, Lean & Neenan, 1965; Gideon, 2014; Slemrod, 2006; Williamson, 1976).

In retrospect, most of the research on the efficacy of the TCJA has focused on the impacts on corporations. Overesch, Reichert and Wamser (2023) found that US multinational corporations (MNCs) had largely successfully engaged in international tax planning prior to the TCJA, and such behaviour had been unchanged following the tax reform.

2.1 Hypothesis development

Prior studies and poll results have shown that the association of the name of a United States President with a particular policy or piece of legislation affected the perceptions of respondents (McKnight et al., 2022). In 2015, a Public Religion Research Institute (PRRI) survey found that when Republicans reacted differently to an identically worded immigration policy when then President Obama's name was associated with the legislation and when it was not with support dropping from 67% (without the Obama name) to 51% (with the Obama name) (Jones & Cox, 2015).

Similarly, in 2016, a Quinnipiac University survey found that the policy proposal related to President Trump's ban on Muslim immigrants was perceived differently by respondents when Trump's name was associated with the policy and when it was not. Of Trump voters, support for the policy rose when Trump's name was attached to the policy (88% approved) compared to when it was not (76% approved) (Schwartz, 2016). Of non-Trump voters, support for the policy dropped when Trump's name was attached to the policy (18% approved) compared to when it was not (26% approved) (Schwartz, 2016). In keeping with subjects' political identity/affiliation, we expect that those who identify as Republican will generally have more support for initiatives that are affiliated with the name Trump. Similarly, we expect those who do not identify as Republican to have a more negative perception of legislation that is related to the name 'Trump'. Hypotheses 1 and 2, below, reflect these expectations:

> **Hypothesis 1:** In the pre-test survey, the subjects who identify as Republican will have greater approval of the new tax law after seeing the law framed as the Trump Tax Cuts relative to Republicans who see the law framed as the TCJA.
>
> **Hypothesis 2:** In the pre-test survey, the non-Republicans will have lower approval of the new tax law as a consequence of the framing of the Act as the Trump Tax Cuts relative to other non-Republicans who see the law framed as the TCJA.

In hindsight, average income tax rates dropped for all income groups because of the TCJA. The TCJA reduced 'marginal statutory tax rates at almost all levels of taxable income' (Gale et al., 2018b, p. 2). According to Tax Foundation,[3] the average rate fell by at least a half per cent from 2017 to 2019; most income ranges saw the average income tax rate drop by 1% or more. Through the expansion of the standard deduction and a reduction of tax rates by nearly all the tax brackets, '[o]verall, most families' tax benefits increased modestly as a result of the TCJA' (Airi et al., 2024). Even so, we expect that Republicans will have more positive perceptions of the new tax law when it is framed as a 'Trump Tax Cuts' as compared to Republicans when the law is framed as the Tax Cuts and Jobs Act, as stated below in Hypothesis 3:

> **Hypothesis 3:** In the post-test survey, the subjects who identify as Republican will have greater approval of the new tax law after seeing the law framed as the Trump Tax Cuts relative to Republicans who see the law framed as the TCJA.

As noted in Fatemi, Hasseldine and Hite (2008), prior research has asserted that the acceptability of a tax system could be threatened if the views of those subjected to that system are ignored (Frey, 1997; Feld & Tyran, 2002). Thus, understanding taxpayer views, especially their attitudes toward governmental bodies, politicians, and fiscal policy, can be instrumental in minimising non-compliance behaviours such as tax evasion (e.g., Cullen, Turner & Washington, 2018). Developing knowledge of taxpayer attitudes also requires that research examine the factors that may influence those attitudes. One such factor that may have a significant effect on one's views regarding taxes is his or her political orientation.

McGowan (2000) observed a link between political orientations and taxpayer attitudes regarding alternative tax systems. Based on this key finding, it was argued that research should address political affiliations when examining the viewpoints of taxpayers and suggests that those affiliations could have moderating effects on the factors that shape an individual's thoughts toward taxation. However, despite McGowan's (2000) appeal, there still exists a significant gap in the accounting literature that has explored the relationships between political associations and taxpayer attitudes.

In public economics, tax preferences are historically modelled as a 'function of the individual income' (Berens & Gelepithis, 2021, p. 375) for self-interested rational individuals (Meltzer & Richard, 1981; Roemer, 1999). Barnes (2015) found that both high- and low-income earners are less likely to support higher taxes than those in the middle of the income distribution. Berens and Gelepithis (2019) identify that reciprocity is a key determinant of the willingness to pay higher taxes. More specifically, the expectation of receiving valuable goods or services from the state in return for paying higher taxes increases a taxpayer's tolerance for higher tax rates.

Levi (1988) asserts that as individuals form tax preferences, they will consider both the cost of the taxes levied upon them and the corresponding personal benefit they may derive as a result. Berens and Gelepithis (2021) argue that the willingness to pay higher taxes depending on reciprocity explains why tax preferences are sensitive to the perceived trustworthiness of political institutions. As political trust increases, the belief that goods and services will benefit taxpayers (and not politicians) also increases (Barnes, 2015; Sears & Citrin, 1982). Further, ideology is also a strong predictor of

[3] Tax Foundation, 'Tax Cuts and Jobs Act (TCJA)', https://taxfoundation.org/taxedu/glossary/tax-cuts-and-jobs-act/ (accessed 26 November 2023).

individual tax preferences (Roosma, van Oorschot & Gelissen, 2016). Hypothesis 4 is based on the role of ideology as a predictor of an individual taxpayer's tax preferences:

> **Hypothesis 4:** In the post-test survey, the non-Republicans will have lower approval of the new tax law as a consequence of the framing of the Act as the Trump Tax Cuts relative to other non-Republicans who see the law framed as the TCJA.

Hypothesis 5 controls for ideology-related bias, and isolates individual taxpayer self-interest:

> **Hypothesis 5:** The larger someone's tax rebate is from the Act the more likely they are to support the Act after controlling for treatment effects, education, and self-identified political affiliation.

3. DATA AND RESEARCH DESIGN

Experimental tax research has utilised a range of methodologies to study tax compliance, tax policy preferences, and the effects of tax incentives on charitable giving. Each experimental method has its strengths and limitations, and researchers must carefully consider which approach is best suited to their research question. By using a combination of experimental methods, researchers can gain a more comprehensive understanding of the complex world of taxation and its impact on society. Our design attempted to use the strengths of several approaches while limiting the weaknesses inherent in each.

One popular experimental method in tax research is field experiments. These experiments implement tax policies or incentives in real-world settings and observe the resulting behaviour of taxpayers. Field experiments can provide valuable insights into taxpayer behaviour in real-world settings and offer greater external validity than laboratory experiments. However, they may be subject to issues related to selection bias, as participants may self-select into the experiment (Mascagni, 2018). We used a randomised assignment of participants to alleviate self-selection bias, though we acknowledge limitations based on those who sought tax assistance through the Volunteer Income Tax Assistance (VITA) program.

An additional experimental method used in tax research is the application of surveys or questionnaires. These methods involve asking individuals about their tax compliance behaviour or their opinions on tax policies. Surveys and questionnaires are easy to administer and can gather large amounts of data quickly. However, they may suffer from issues related to social desirability bias or self-reporting bias (Ganghof & Genschel, 2008). We integrated the use of survey questions in a pre- and post-test scenario to capture changes in perceptions regarding the TCJA and related constructs.

We additionally integrated elements of a fourth experimental method used in tax research – natural experiments. These experiments observe the behaviour of taxpayers in response to naturally occurring events, such as changes in tax policy or economic conditions. Natural experiments provide valuable insights into the effects of tax policy changes on taxpayer behaviour and offer greater external validity than laboratory experiments. However, they may be subject to issues related to endogeneity or confounding variables (Hallsworth et al., 2017). Through random assignment of participants into control and treatment groups we attempted to alleviate these issues.

3.1 Data collection

We collected data over a seven-week period during tax preparation for the Volunteer Income Tax Assistance (VITA) program. VITA is an IRS-sponsored program in which organisations have volunteers prepare tax returns for mid-to-low-income individuals at no cost.[4] Clients arrived for their tax return preparation appointment, signed in, and were given a random code/client number. Once assigned a client number, clients were randomly assigned to one of two pre-test groups. Our first question of interest is how preferences for the Tax Cuts and Jobs Act (TCJA) will be affected by the association of the name 'Trump' with the Act. Thus, we randomly assigned some respondents to the framed version of the following question and some respondents to the unframed version:

1. Unframed Version: What is your opinion of the Tax Cuts and Jobs Act (TCJA)?
2. Framed Version: What is your opinion of the Trump Tax Cuts?

The respondents were given five options for a response: Strongly Support; Moderately Support; No Opinion; Moderately Oppose; Strongly Oppose. For the purposes of our analysis, we coded the responses to this question using a Likert Scale with 1 being associated with Strongly Support and 5 being associated with Strongly Oppose.

Based on groupings, clients completed a series of intake forms, including a statement of informed consent and the appropriate pre-test for their treatment group. Clients were informed that they could 'opt out' of the study at any point.

A total of 72 clients (out of 107 participating in the VITA program) participated in the research study. Once intake forms and pre-tests were completed, participating clients were assigned to a volunteer tax preparer, while researchers reviewed their intake forms for completeness or other issues.

After the client's tax return was prepared by volunteers and verified by the VITA site coordinator, the results (refund/underpayment status) as well as a side-by-side comparison of the effect of tax law changes as compared to the previous year were presented to participants. At this point, clients completed the post-test. Pre- and post-tests were combined into a single document using the codes provided to clients during their initial intake. Researchers collected and entered data into a database at the conclusion of each evening of the VITA program appointments.

3.2 Participants

The participant group provided a relatively representative sample. A total of 72 clients participated in the study; 48.6% were male, and 51.4% were female. The mean age of participants was 47.43, and the median age was 44. Self-reported political affiliation was relatively evenly distributed; 23 (31.9%) identified as Republican.[5] Another 29.2% identified as independent, and 31.9% indicated they were Democrats. Two individuals identified as 'other' while three individuals failed to report any political affiliation.

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[4] Internal Revenue Service (IRS), 'Free tax return preparation for qualifying taxpayers', https://www.irs.gov/individuals/free-tax-return-preparation-for-qualifying-taxpayers (accessed 27 May 2023).

[5] Respondents were asked to gauge their political affiliation with the options being Strong Republican, Moderate Republican, Independent, Strong Democrat, Moderate Democrat, or Other.

Most participants reported receiving a tax refund for the previous tax year (69.4%), while 16.7% reported owing additional payments for the previous tax year, and 9.7% reported a zero balance (no refund or additional payments due). Three individuals (4.2%) did not answer the question.

The modal response to our education question was completion of high school (41%) with no respondent with less than high school completion. The remaining respondents indicated a level of educational attainment as vocational certification (4%), associate degree (13%), bachelor's degree (24%), master's degree (14%), or professional/doctoral (3%). Two respondents did not answer the question concerning education.

Of study participants who answered, they ranged from employed full-time (49.3%) to retired (29.6%). Another 15.3% identified as employed part-time while 5.6% identified as unemployed. The filing status of most participants (58.3%) was 'Single' while 29.2% were 'Married Filing Jointly'. The remaining participants filed as 'Head of Household' (5.6%) or 'Married Filing Separately' (6.9%). Related to income, participants adjusted gross income (AGI) ranged from 0 to USD 120,067, with a mean of USD 36,096 and a median of USD 26,669. The one individual reporting a high income (USD 120,067) was allowed to participate in the VITA program based on previously qualifying for the program in a prior tax year.

Participants spent between 75 and 90 minutes completing the entire process, from intake through tax preparation and the final post-test. Importantly, participants were involved for no more than 90 minutes, minimising the likelihood that changes in perspectives were influenced by factors other than the tax law changes themselves. The Tax Cuts and Jobs Act (TCJA), central to our research, was introduced in November 2017, signed into law in December 2017, and enacted in 2018 (HR 1, 2017). Data collection for the study occurred from February to April 2018, aligning with the early implementation phase of the TCJA. This timing allowed us to capture participants' initial reactions and assess the potential influence of framing based on the association of the Act with 'Trump' in a real-world setting.

3.3 VITA program participants

The VITA program, organised by the IRS, provides free tax preparation services to individuals who meet certain criteria, such as having low to moderate income, being elderly, or having disabilities. Generally, the income cap for eligibility is USD 67,000, but local VITA sites may make exceptions. For example, elderly or disabled taxpayers can still qualify regardless of income, especially if their returns are simple. The program is designed not only to help taxpayers file their taxes but also to ensure they claim key tax credits like the Earned Income Tax Credit (EITC) and Child Tax Credit (CTC), which they might otherwise miss. Additionally, the program aims to improve financial literacy among underserved populations by offering guidance on tax filing and financial management (Miller & Thalacker, 2013).[6]

Many VITA sites are tailored to the needs of their specific communities, sometimes extending services to those whose income slightly exceeds the usual limits, especially when local conditions, such as financial hardship, warrant such flexibility. VITA sites, often run by universities or community organisations, may also provide additional

[6] See also IRS, 'Free tax return preparation for qualifying taxpayers', https://www.irs.gov/individuals/free-tax-return-preparation-for-qualifying-taxpayers (accessed 27 May 2023).

educational resources to help taxpayers learn how to better manage their financial records and plan for future tax filings. This emphasis on education, along with flexible eligibility guidelines, makes the VITA program a vital tool for helping individuals improve their financial well-being while ensuring they meet their tax obligations (Miller & Thalacker, 2013).

4. DATA ANALYSIS

Our main empirical strategy utilises linear regression to explore how support for the Act changes with the framing of the Act for different political groups. To set the stage for the more rigorous regressions, we will first present the raw averages of support in the pre-test and post-test data. Then we will present our results of linear regressions including an array of controls to test for robustness. Lastly, we will relate these results to our formal hypothesis.

As noted previously there are 72 total observations from the VITA program. Of these 72 observations three did not provide political affiliation. We dropped these three observations, reducing our usable data to 69 observations. Further, there are 3 observations (1 Indep; 2 Republican) where subjects did not answer the question about support for the Act in the pre-test survey and 3 observations (2 Indep; 1 Democrat) where subjects did not answer the question (TJCA_P) about the support for the Act in the post-test survey. Therefore, there are a total of 66 Observations in the pre-test survey and 66 observations in the post-test survey.[7] Table 1, below, provides a summary of the variables used in our analysis.

The variable *H_TaxRef* captures how much better (*H_TaxRef* is positive) or worse off (*H_TaxRef* is negative) someone is from the TJCA compared to tax law prior to implementing the TCJA. For example, a taxpayer whose tax liability was reduced by USD 1,000 would have been identified as 'better off' and *H_TaxRef* is coded as 10 and a taxpayer whose tax liability was increased by USD 500 would have been identified as 'worse off' with *H_TaxRef* is coded as negative 5 since the variable measures the change in tax liability in hundreds of dollars. This is only revealed to the subject at the post-test portion of the data collection and will allow us to measure the impact of self-interest on perceptions of the Act.

[7] There are a total of 63 paired observations in the data. We chose to not use only the paired observations due to our (already) small sample size. Nonetheless, the results of the same analysis using only the paired observations yields qualitatively similar results.

Table 1: Summary of Variables Used in Analysis

Variable	Description	Mean	Std. Dev.	Min	Max
Repub	1 if self-identify as republican; 0 otherwise	0.32	0.47	0	1
Indep	1 if self-identify as independent or other	0.33	0.47	0	1
Trump	1 if framed version; 0 otherwise	0.44	0.50	0	1
TCJA	Question on pre-test about Act	3.16	1.22	1	5
TCJA_P	Question on post-test about Act	2.83	1.27	1	5
H_Taxref	Impact of new tax law on tax liability in hundreds of $	6.76	8.56	-7.45	42.16
EducHS	1 if highest education attained is high school; 0 if highest level of education is **more** than high school	0.40	0.49	0	1
Female	1 if the subject indicated they were female	0.52	0.50	0	1
Retired	1 if the subject indicated they were retired	0.26	0.44	0	1
Fstatus	1 if the filing status of a subject Single	0.58	0.50	0	1

Figure 1 shows the mean support of the Act by political party for the pre-test data. The error bars represent a 95% confidence interval. Within each political party, except for Republicans, there is no statistically significant evidence that the Trump frame has much effect. For Republicans, on the other hand, the difference in the average support for the Act is statistically significant with a p-value of 1.2%.

Fig. 1: Average Support by Political Party – Pre-Test Data

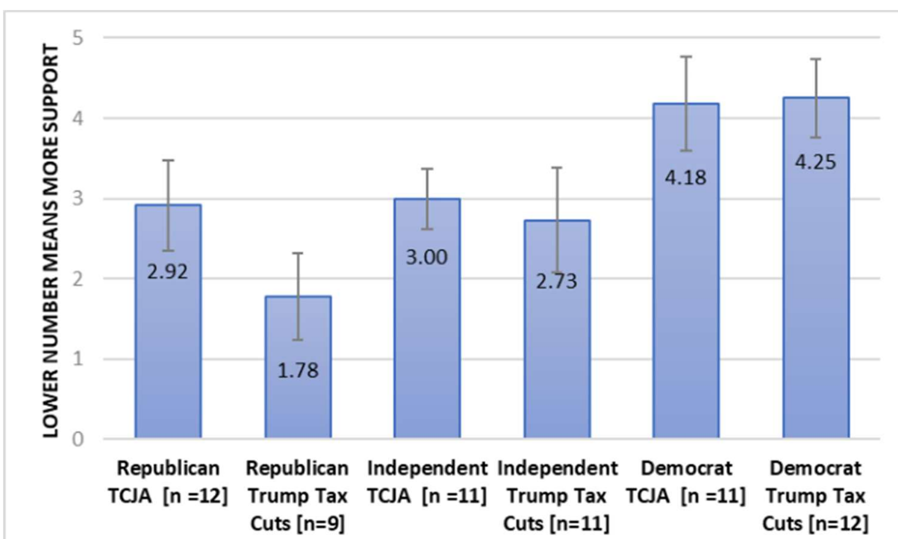
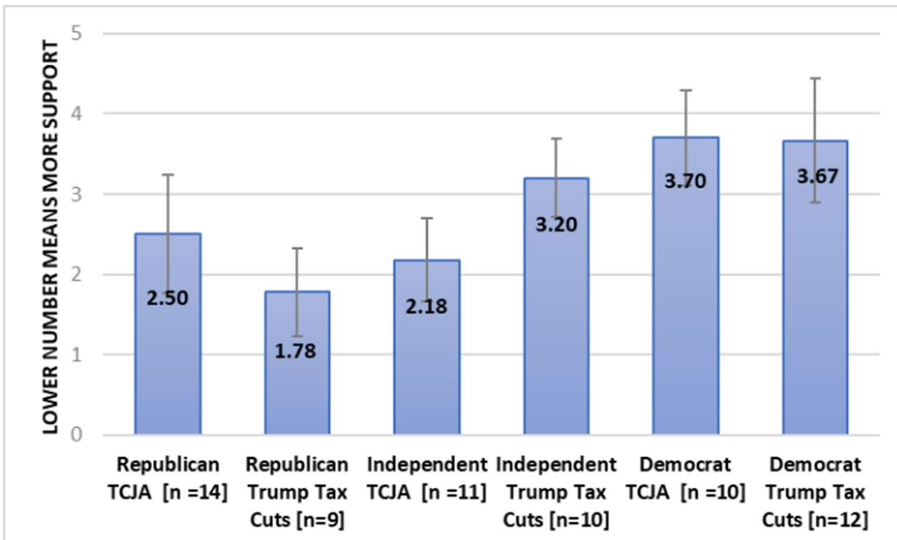


Figure 2 shows the mean support of the Act by political party for the post-test data. The error bars represent a 95% confidence interval. Within each political party, except for Independents, there is no statistically significant evidence that the Trump frame has much effect. For Independents, on the other hand, the difference in the average support for the Act is statistically significant with a p-value of 1.2%.

Fig. 2: Average Support by Political Party – Post-Test Data



Below we present the results of our regression analysis. The first two specifications deal with the pre-test measure of support for the Act, and the last two specifications concern the post-test measure of support for the Act. We chose to use regression analysis in addition to the averages for two reasons. First, the use of regression will allow us to control for other demographic effects. The introduction of these controls can be found in specifications 2 and 4 in the Table below as opposed to the more parsimonious models in columns 1 and 3. Second, the use of regression will allow us to also investigate more deeply the differences between political groups.[8]

[8] The results in Table 2 are from Ordinary Least Squares regressions. Other specifications such as heteroscedastic errors, bootstrapped errors, and Ordered Probit specifications produce similar results and are available upon request.

Table 2: Regression Results

Specification	(1)	(2)	(3)	(4)
Dependent variable:	*TCJA*	*TCJA*	*TCJA_P*	*TCJA_P*
Repub (1 if republican)	-1.265***	-1.191***	-1.149**	-1.164**
	(0.002)	(0.004)	(0.013)	(0.015)
Trump (1 if see Trump frame)	0.068	0.091	-0.066	-0.014
	(0.859)	(0.816)	(0.886)	(0.977)
*Repub*Trump (interaction term)*	-1.207**	-1.330**	-0.864	-0.996
	(0.034)	(0.024)	(0.193)	(0.152)
Indep	-1.181***	-1.046**	-1.636***	-1.590***
	(0.004)	(0.012)	(0.001)	(0.002)
*Indep * Trump*	-0.341	-0.322	1.223*	1.278*
	(0.536)	(0.565)	(0.070)	(0.071)
H_TaxRef			-0.032**	-0.036*
			(0.045)	(0.057)
EducHS		-0.195		0.124
		(0.627)		(0.676)
female (1 if female)		0.261		-0.042
		(0.385)		(0.883)
retired (1 if retired)		0.151		0.308
		(0.166)		(0.357)
Fstatus (1 if filing status is single)		0.266		-0.239
		(0.443)		(0.463)
Constant	4.182***	3.844***	3.960***	3.619***
	(<0.001)	(<0.001)	(<0.001)	(<0.001)
Observations	66	66	66	66
F statistic	10.90***	6.41***	5.52***	3.37***
R^2	0.476	0.508	0.360	0.380

Results are from OLS regressions. The omitted category of political party is Democrats. P-values are in parenthesis beneath estimated coefficients and represent a two-sided test of the null hypothesis that the coefficient is equal to a value of zero. *** implies significant at 1%; ** implies significant at 5%; * implies significant at 10% level.

4.1 Hypothesis 1

Hypothesis 1 stated 'In the pre-test survey, the subjects that identify as Republican will have greater approval of the new tax law after seeing the law framed as the Trump Tax Cuts relative to Republicans who see the law framed as the TCJA'.

If we consider specification 1 in the regression results, we can see from the interaction term of Trump with the Republican indicator that there is strong evidence that the Trump frame has an impact on the Republicans in our sample. The negative coefficient for this interaction term implies that Republicans who see the Trump frame are more supportive (i.e., lower number) than the Republicans who do not see the Trump frame. This is also seen in Figure 1 as the mean support for Republicans who see the Trump frame is 1.78 versus 2.50 for the Republicans who do not see the Trump frame. Notice that this difference is also robust to including controls for other demographic characteristics of our sample as evidenced in specification 2.

4.2 Hypothesis 2

Hypothesis 2 stated 'In the pre-test survey, the non-Republicans will have lower approval of the new tax law as a consequence of the framing of the Act as the Trump Tax Cuts relative to other non-Republicans who see the law framed as the TCJA'.

Using the regression results we can delineate how the Trump frame affects Independents and Democrats separately. By considering specification 1, we see that the interaction term with the Trump frame and the Independent indicator fails to be significantly different from zero. This suggests that subjects who self-identify as Independents have no measurable difference in support for the Act when seeing the Trump frame and seeing the TCJA frame. We conclude that there is no support for Hypothesis 2 for the group of Independents.

For Democrats, since they are the omitted category in our regressions, we must consider the significance of the *Trump* variable in our regressions. We see that the Trump variable fails to be significantly different from zero and we can conclude that that Democrats are not measurably affected by the Trump frame finding no support for Hypothesis 2 for Democrats.

Lastly, we can see that these results are robust to the inclusion of demographic characteristics as evidenced in column 2 in the Table.

For Hypotheses 3 and 4 we concern ourselves with specifications 3 and 4 in the regression results.

4.3 Hypothesis 3

Hypothesis 3 stated 'In the post-test survey, the subjects that identify as Republican will have greater approval of the new tax law after seeing the law framed as the Trump Tax Cuts relative to Republicans who see the law framed as the TCJA'.

Using specification 3 in the Table we consider the interaction term between the Republican indicator and the Trump indicator. We see that this interaction term fails to be significantly different from zero with a p-value of 19.3%. This suggests that in the post-test survey no measurable difference exists between Republicans seeing the Trump frame and the TCJA frame. Therefore, we do not find support for Hypothesis 3 in our data.

4.4 Hypothesis 4

Hypothesis 4 stated 'In the post-test survey, the non-Republicans will have lower approval of the new tax law as a consequence of the framing of the Act as the Trump Tax Cuts relative to other non-Republicans who see the law framed as the TCJA'.

Again, using the regression results we can delineate how the Trump frame affects Independents and Democrats separately. By considering specification 3, we see that the interaction term with the Trump frame and the Independent indicator is positive and significantly different from zero at the 10% level. This suggests that subjects who self-identify as Independents see the Act less favourably relative to Independents who see the TCJA frame. We conclude that there is support for Hypothesis 4 for the group of Independents.

For Democrats, since they are the omitted category in our regressions, we must consider the significance of the *Trump* variable in specifications 3 and 4. We see that the Trump variable fails to be significantly different from zero and we can conclude that Democrats are not measurably affected by the Trump frame finding no support for Hypothesis 4 for Democrats.

Lastly, we can see that these results are robust to the inclusion of demographic characteristics as evidenced in column 4 in the Table.

4.5 Hypothesis 5

Hypothesis 5 stated 'The larger someone's tax rebate is from the Act the more likely they are to support the Act after controlling for treatment effects, education, and self-identified political affiliation'.

To test this hypothesis, we consider the coefficient on the variable *H_TaxRef*. In specification 3 we see that the coefficient is negative and significantly different from zero. Similarly in specification 4 after we also include controls for education level, self-identified political affiliation, sex, retirement status, and filing status. Therefore, we conclude that our data supports Hypothesis 5.

5. DISCUSSION

This study shows that how the Tax Cuts and Jobs Act (TCJA) is described can influence how people feel about it, especially among Republicans. As we expected, Republicans were more likely to support the Act when it was called the 'Trump Tax Cuts' rather than the TCJA. This suggests that political labels matter and can change how people think about policies. This result is robust to including controls for education, tax filing status, sex, and employment status. However, our results did not support our second prediction, which was that Democrats and Independents would be less likely to support the Act when it was linked to Trump. Their opinions did not measurably change based on how the Act was framed, which suggests they may have already made up their minds.

After learning more about how the Act affected them personally, Independents showed less support for it when it was called the Trump Tax Cuts, confirming part of our fourth prediction. This suggests that some people's opinions are flexible, especially if they are not strongly tied to one political party. However, Democrats did not change their views based on framing, and Republicans no longer showed a significant difference in support. This means that while first impressions are important, they might not last once people get more details.

Finally, our results strongly support the idea that personal financial benefits play a big role in shaping opinions. People who saved money under the TCJA were more likely to support it, regardless of their political party. This suggests that while political labels influence opinions, financial benefits can be an even stronger factor. Overall, our study helps us understand how both political identity and personal gain shape public opinion on tax policies.

6. CONCLUSION

In the case of the Tax Cuts and Jobs Act, linking a specific political figure to the Act does impact how taxpayers view the Act. We find that the name 'Trump' being linked to the TCJA somewhat strengthens the President's standing with his 'base' voter demographic. Additionally, we find that showing taxpayers how much they personally benefited from the TCJA, no matter their political affiliation, does increase support for the Act in general.

6.1 Significance and contributions

This study applied well-known research about taxpayers' preferences on tax laws to a specific policy: the Tax Cuts and Jobs Act (TCJA). Using field experiments, the study examined how taxpayers view the TCJA and explored how those views are influenced by political ideologies and political figures. The findings offer important insights into how political identity and framing affect public opinion on tax legislation.

Consistent with earlier research (Jones & Cox, 2015; Schwartz, 2016; McKnight et al., 2022), the results show that associating the TCJA with a politically divisive figure, such as President Trump, significantly increases approval among Republicans. Results from Hypothesis 1 highlights this effect, showing that Republicans are more likely to approve of the TCJA when it is framed as the 'Trump Tax Cuts'. This finding supports the idea that political identity amplifies support for policies aligned with one's beliefs. It also builds on previous research by McKnight and co-authors (2022), which demonstrated how associating the name 'Trump' with the TCJA affects people's satisfaction with the Act, particularly among self-identified Republicans. Additionally, the results expand earlier studies, showing that framing influences opinions about financial policies, not just social or cultural issues.

At the same time, the findings for non-Republicans challenge some assumptions from past research, as noted from Hypotheses 2 and 4. Earlier studies suggested that framing might decrease support among opposing political groups (Schwartz, 2016; McGowan, 2000). However, this study found no major framing effect on Independents or Democrats. One explanation is that non-Republicans had already formed strong opinions about the TCJA before the study began, leaving little room for framing to change their views. These results suggest that framing works differently for financial policies, especially when the legislation has a direct impact on taxpayers' personal finances (Gale et al., 2018a).

The study also explores how self-interest influences support for tax policies as we posited with Hypothesis 5. Building on Levi's (1988) theory that people consider both costs and personal benefits, the results show that receiving a tax rebate increased approval of the TCJA. This remained true even after accounting for political beliefs and framing effects. These findings align with earlier research (Barnes, 2015; Berens & Gelepithis, 2019), which highlights the role of personal financial gains in shaping tax preferences. Importantly, self-interest appears to stabilise opinions, reducing the polarising effects of framing by connecting attitudes to personal outcomes.

In addition to these findings, this research also identified a valuable participant group for future studies. Volunteer Income Tax Assistance (VITA) programs, particularly those affiliated with universities, provide a unique opportunity for data collection and research. VITA programs have already been recognised as important educational tools for applied experiential learning (Boneck, Barnes & Stillman, 2014; McKnight et al., 2021; Strupeck & Whitten, 2004; Laing, 2013). Our research validates their potential as a reliable source for gathering data on taxpayer perspectives and behaviours, opening doors for future studies in this area.

Overall, this study adds to the research on framing effects, political identity, and self-interest in tax policy. It shows that while framing has a strong influence on Republicans, it has little effect on Independents or Democrats. At the same time, self-interest plays an important role in stabilising public opinion on tax laws like the TCJA. These findings offer valuable insights for policymakers and communicators, highlighting how messaging, political beliefs, and tangible financial outcomes shape public attitudes toward tax reforms.

6.2 Suggestions for further research

Use of a VITA program produced a solid sample for this research. However, future research should expand beyond those who are eligible to participate in a VITA program and should include taxpayers that represent demographics who were not eligible due to VITA program restrictions. Currently, IRS restrictions limit VITA participants to individuals making USD 67,000 annually or less, persons with disabilities, and those who speak limited English.[9] Possibilities to consider would include those who exceed the income limitations – as is discussed below – as well as non-English speaking individuals.

Many of the changes that were enacted as a part of the TCJA of 2017 were scheduled to expire at the end of 2025. The passage of the One, Big, Beautiful Bill made many of the elements of the TCJA permanent. While cost estimates of that extension are high at USD 288.5 billion (Wamhoff et al., 2023), a replication of the current study adapted for provisions of the One, Big, Beautiful Bill would be appropriate once the new legislation becomes effective in 2026.

In addition to a potential replication following the settlement of the One, Big, Beautiful Bill, another consideration for future research should be whether to bracket income levels in greater numbers to get taxpayer reactions based on income levels. Potential methods of grouping by income could be based on IRS tax brackets, percentile ranks based on potential share of tax cuts should the TCJA provisions be extended (Wamhoff et al., 2023), or a more complex categorisation based not only on income but by filing status as well.

In the present research, as it pertained to our two dependent variables of interest, those who self-identified as 'independents' tended to behave more like Republicans than Democrats. Independent voters in this instance had moderately more approval for the changes to the tax law after seeing the general tendency for tax liability to decrease because of the Act. Future research in this area should isolate the opinions of independent voters to investigate the degree to which personal benefit resulting from changes to the tax code might impact voter intent.

[9] IRS, 'Free tax return preparation for qualifying taxpayers', https://www.irs.gov/individuals/free-tax-return-preparation-for-qualifying-taxpayers (accessed 27 May 2023).

7. REFERENCES

Airi, N, Auxier, R C, Boddupalli, A, Brosy, T, Buhl, J, Burman, L E, Gale, W G, Gordon, T, Holtzblatt, J, Maag, E, Marron, D, McClelland, R, Mermin, G B, Page, B R, Rohaly, J, Rosenthal, S M, Steuerle, C E, Theodos, B & Toder, E 2024, 'How did the TCJA change taxes of families with children?', *Tax Policy Center briefing book*. Available at: https://taxpolicycenter.org/ (accessed 18 March 2025).

Altig, D, Auerbach, A, Higgins, P, Koehler, D, Kotlikoff, L, Terry E & Ye, V 2020, 'Did the 2017 tax reform discriminate against blue-state voters?', *National Tax Journal*, vol. 73, no. 4, pp. 1087-1108.

Ballard, C L & Gupta, S 2018, 'Perceptions and realities of average tax rates in the federal income tax: Evidence from Michigan', *National Tax Journal*, vol. 71, no. 2, pp. 263-294.

Barnes, L 2015, 'The size and shape of government: Preferences over redistributive tax policy', *Socio-Economic Review*, vol. 13, no. 1, pp. 55-78.

Barro, R J & Furman, J 2018, 'Macroeconomic effects of the 2017 tax reform', *Brookings Papers on Economic Activity*, vol. 2018, no. 1, pp. 257-345.

Berens, S & Gelepithis, M 2019, 'Welfare state structure, inequality, and public attitudes towards progressive taxation', *Socio-Economic Review*, vol. 17, no. 4, pp. 823-850.

Berens & Gelepithis 2021, 'What do people want? Explaining voter tax preferences' in Hakelberg, L & Seelkopf, L (eds), *Handbook on the politics of taxation*, Edward Elgar, Cheltenham, UK, pp. 374-387.

Blaufus, K, Bob, J, Hundsdoerfer, J, Sielaff, C, Kiesewetter, D & Weimann, J 2015, 'Perception of income tax rates: Evidence from Germany', *European Journal of Law and Economics*, vol. 40, no. 3, pp. 457-478.

Boneck, R, Barnes, J N & Stillman, T F 2014, 'VITA experiential, service-learning, learned competencies, and changed mindsets', *Journal of College Teaching and Learning*, vol. 11, no. 2, pp. 71-84.

Chalk, N A, Keen, M & Perry, V 2018, 'The Tax Cuts and Jobs Act: An appraisal', International Monetary Fund working paper WP/18/185.

Cullen, J B, Turner, N & Washington, E 2021, 'Political alignment, attitudes toward government, and tax evasion', *American Economic Journal: Economic Policy*, vol. 13, no. 3, pp. 135-166.

Fatemi, D J, Hasseldine, D J & Hite, P A 2008, 'Resisting framing effects: The importance of prior attitude on estate tax preferences', *Journal of the American Taxation Association*, vol. 30, no. 1, pp. 101-121.

Feld, L P & Tyran, J-R 2002, 'Tax evasion and voting: An experimental analysis", *Kyklos*, vol. 55, no. 2, pp. 197-221.

Field, H M 2021, 'Taxpayer choices, itemized deductions, and the relationship between the federal and state tax systems', *Columbia Journal of Tax Law*, vol. 13, no. 1, pp. 1-44.

Frey, B S 1997, ‘A constitution for knaves crowds out civic virtues’, *The Economic Journal*, vol. 107, no. 443, pp. 1043-1053.

Gale, W, Gelfond, H, Krupkin, A, Mazur, M J & Toder, E 2018a, ‘A preliminary assessment of the Tax Cuts and Jobs Act of 2017’, *National Tax Journal*, vol. 71, no. 4, pp. 589-612.

Gale, W G, Gelfond, H, Krupkin, A, Mazur, M J & Toder, E 2018b, ‘Effects of the Tax Cuts and Jobs Act: A preliminary analysis’, Tax Policy Center, 13 June. Available at: https://www.taxpolicycenter.org/sites/default/files/publication/155349/2018.06.08_tcja_summary_paper_final.pdf (accessed 24 November 2023).

Ganghof, S & Genschel, P 2008, ‘Taxation and democracy in the EU’, *Journal of European Public Policy*, vol. 15, no. 1, pp. 58-77.

Gensemer, B L, Lean, J A & Neenan, W B 1965, ‘Awareness of marginal income tax rates among high-income taxpayers’, *National Tax Journal*, vol. 18, no. 3, pp. 258-267.

Gideon, M S 2014, *Survey measurement of income tax rates*, PhD thesis, University of Michigan. Available at: https://pdfs.semanticscholar.org/3006/42d2b540d4dec5217edd295b14f7b7a02eee.pdf.

Hallsworth, M, List, J A, Metcalfe, R D & Vlaev, I 2017, ‘The behavioralist as tax collector: Using natural field experiments to enhance tax compliance’, *Journal of Public Economics, vol. 148, pp.* 14-31.

Jones, R P & Cox, D 2015, ‘Roughly three-quarters of Americans favor goals of Obama’s immigration action’, Public Religion Research Institute report, 12 February. Available at: https://www.prri.org/research/survey-roughly-three-quarters-favor-substance-behind-obamas-immigration-reform/ (accessed 19 October 2019).

Kallen, C & Mathur, A 2021, ‘Estimating the distributional implications of the Tax Cuts and Jobs Act’, *National Tax Journal*, vol. 74, no. 3, pp. 721-759.

Lai, S & Jacobs, J 2024, ‘Trump eyes keeping 21% corporate tax, extending individual cuts’, *Bloomberg*, 6 January. Available at: https://www.bloomberg.com/news/articles/2024-01-06/trump-considers-making-2017-personal-tax-cuts-permanent?embedded-checkout=true (accessed 11 January 2024).

Laing, G K 2013, ‘Service learning: An auditing project study’, *International Education Studies*, vol. 6, no. 1, pp. 174-183.

Levi, M 1988, *Of rule and revenue*, University of California Press, Berkeley, CA.

Mascagni, G 2018, ‘From the lab to the field: A review of tax experiments’, *Journal of Economic Surveys*, vol. 32, no. 2, pp. 273-301.

McGowan, J R 2000, ‘The effect of political affiliation on taxpayers’ attitudes toward alternative tax systems’, *Journal of the American Taxation Association*, vol. 22, no. 1, pp. 111-128.

McKnight, M A, Bueltel, B L, Dill, A T, Seitz, J L & Bryan, T G 2021, ‘Incorporating experiential learning into the accounting curriculum: Best practices and lessons learned from a recently implemented curriculum’, *Global Journal of Accounting and Finance*, vol. 5, no. 1, pp. 75-86.

McKnight, M A, Price, C R, Dill, A T, Bryan, T G & Bueltel, B L 2022, ‘Who gives a Trump? Evidence of framing effects in tax policy’, *Journal of Accounting, Ethics and Public Policy*, vol. 23, no. 1, pp. 149-164.

Meltzer, A H & Richard, S F 1981, ‘A rational theory of the size of government’, *Journal of Political Economy*, vol. 89, no. 5, pp. 914-927.

Miller, W F & Thalacker, B L 2013, ‘Development of an award-winning Volunteer Income Tax Assistance program: A case study”, *American Journal of Business Education*, vol. 6, no. 5, pp. 539-550.

Overesch, M, Reichert, L G A & Wamser, G 2023, ‘The effects of the Tax Cuts and Jobs Act on the tax-competitiveness of multinational corporations’, CESifo Working Paper No. 10310. Available at: https://www.cesifo.org/DocDL/cesifo1_wp10310.pdf (accessed 30 March 2023).

Pew Research Center 2016, ‘Top voting issues in 2016 election’, 7 July. Available at: https://www.pewresearch.org/politics/2016/07/07/4-top-voting-issues-in-2016-election/ (accessed 5 April 2023).

Qiu, L 2016, ‘Donald Trump’s top 10 campaign promises’, *Politifact*, 15 July. Available at: https://www.politifact.com/article/2016/jul/15/donald-trumps-top-10-campaign-promises/ (accessed 10 April 2022).

Rees-Jones, A & Taubinsky, D 2020, ‘Measuring “Schmeduling”’, *Review of Economic Studies*, vol. 87, no. 5, pp. 2399-2438.

Roemer, J E 1999, ‘The democratic political economy of progressive income taxation’, *Econometrica*, vol. 67, no. 1, pp. 1-19.

Roosma, F, van Oorschot, W & Gelissen, J 2016, ‘A just distribution of burdens? Attitudes toward the social distribution of taxes in 26 welfare states’, *International Journal of Public Opinion Research*, vol. 28, no. 3, pp. 376-400.

Schwartz, D 2016, ‘Trump name has strong impact on American voters, Quinnipiac University national poll finds; division grows when Trump name is added to statements’, Quinnipiac University Poll, 30 March. Available at: https://poll.qu.edu/images/polling/us/us03302016_U47umph.pdf/ (accessed 17 October 2019).

Sears, D O & Citrin, J 1982, *Tax revolt: Something for nothing in California*, Harvard University Press, Cambridge, MA.

Slemrod, J 2006, ‘The role of misconceptions in support for regressive tax reform’, *National Tax Journal*, vol. 59, no. 1, pp. 57-75.

Strupeck, C D & Whitten, D 2004, ‘Accounting service-learning experiences and the IRS volunteer income tax assistance programme: A teaching note’, *Accounting Education*, vol. 13, no. 1, pp. 101-112.

Taite, P C 2020, 'Making tax policy great again: America, you've been Trumped', *Florida Tax Review*, vol. 24, no. 1, pp. 240-276.

Wamhoff, S, Hughes, J & Gardner, M 2023, *Extending temporary provisions of the 2017 Trump tax law: National and state-by-state estimates*, Institute on Taxation and Economic Policy. Available at: https://itep.org/extending-temporary-provisions-of-the-2017-trump-tax-law-national-and-state-by-state-estimates/ (accessed 17 May 2023).

Weeks McCormack, S 2020, 'Caregivers and tax reform: Before and after snapshots', *Virginia Tax Review*, vol. 40, no. 1, pp. 53-90.

Williamson, J B 1976, 'Beliefs about the rich, the poor and the taxes they pay', *American Journal of Economics and Sociology*, vol. 35, no. 1, pp. 9-30.

Wu, Y 2022, 'Indirect federal subsidy and tax exportation through state and local tax deduction: Understanding the impact of the 2017 tax reform on state and local governments', *Publius*, vol. 52, no. 1, pp. 154-172.

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Tax reporting under GRI 207: an exploratory case study of Shell plc

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Abstract

This study investigates the impact of the Global Reporting Initiative's GRI 207: Tax 2019 standard on corporate tax transparency and tax behaviour, using Shell plc as a longitudinal case study from 2011 to 2023. It critically evaluates how GRI 207 interacts with the UK's existing disclosure frameworks, assesses whether it introduces new dimensions of transparency, and examines its influence on Shell's tax disclosure and tax aggressiveness. The study finds that GRI 207 largely complements the UK's existing tax disclosure requirements, particularly in strategy, governance, and stakeholder engagement, but diverges by advocating public country-by-country reporting, which Shell has not fully adopted. Further, tax disclosure volume increased significantly following the introduction of GRI 207; however, effective tax rates (ETRs) and adjusted ETRs declined, suggesting increased tax aggressiveness. The study concludes that GRI 207, as a voluntary and soft-law initiative, enhances public reporting, but its impact on corporate tax behaviour, particularly in Shell's case, appears limited.

Key words: GRI 207, tax transparency, tax disclosure, tax avoidance, tax aggressiveness

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1. INTRODUCTION

Classical economist David Ricardo (1895) mentioned tax as a 'great evil' that can reduce economic welfare and hinder capital accumulation. Followers of his arguments consider tax payment as a mere legal obligation (Djankov et al., 2010; Davis et al., 2016). Others however equally emphasise tax payment as an ethical and social contribution beyond a legal necessity (Xu et al., 2022; Jemiolo & Farnsel, 2023; Chaim & Parchomovsky, 2024). Irrespective of this classical debate over the nature of tax obligations, there is escalating pressure on large corporations and multinational corporations (MNCs) to pay their 'fair' share of tax to governments at their place of operation. Indeed, the payment of tax is now considered a part of the corporation's environmental, social, and governance commitment (Fallan, 2015; Chaim & Parchomovsky, 2024). Moreover, studies argue that paying the 'fair' share of tax is an integral part of responsible business practices (Elbra & Mikler, 2017; De la Cuesta-Gonzalez & Pardo, 2019). Of course, determining what is 'fair' is often a contentious and nebulous issue (Schoueri & Owens, 2020).

MNCs have been accused of not paying their 'fair' share of tax in every country where they operate (Desai & Dharmapala, 2006; Otusanya, 2011; Elbra & Mikler, 2017; Garcia-Bernardo & Janský, 2024). Contemporary examples of tax minimisation practices of MNCs like Amazon, Google, Apple, or Starbucks have 'raised the eyebrows' of consumers, regulators, and governments (Christians, 2013; Barrera & Bustamante, 2018; Brown, 2023). For example, while Starbucks was expanding its business continuously in the United Kingdom (UK), it showed business losses in tax returns for 14 consecutive years. Public reaction to that incident was so intense that later, Starbucks voluntarily paid GBP 20 million in tax to the UK tax authority, even though its reported tax liability was nil (Christians, 2013). Such public reaction on tax payment and transparency increased on the MNCs, particularly after the Global Financial Crisis (GFC) of 2009 (Muller & Kolk, 2015).

Corporations' tax payments can be crucial to any country's domestic resource mobilisation, providing governments with the funds required for social services and welfare. Thus, tax revenue can contribute to countries achieving their United Nations Sustainable Development Goals (SDGs), such as by generating employment, reducing poverty, and providing quality healthcare and education. It can also assist in improving gender equity and sustainable economic growth (Halim & Rahman, 2022; United Nations Development Programme (UNDP), 2023). This realisation may contrast with a corporation's profit maximisation objective if tax payment is viewed merely as a cost. To resolve this conflict, the corporation's tax strategy and sustainability objectives need to be better aligned.

Tax planning can be a key component of a corporation's tax strategy. Aggressive tax planning, often known as tax aggressiveness, is the downward management of tax payments (Hanlon & Heitzman, 2010). This tax minimisation can vary from corporation to corporation, and can be influenced by the industry, the extent of international operations, and the specific business activity. What tax minimisation strategy corporations adopt can be best explained by the taxpayers or their tax advisors (Lee et al., 2015), as the tax information held by tax authorities can have strict confidentiality obligations. Therefore, it can be very difficult for different stakeholders to ascertain the actual tax practices of a corporation (Krever et al., 2022). Even for listed corporations, publicly disclosed tax information in financial statements can be quite limited.

Historically, corporations have disclosed fragmented information on tax practices, such as a few quantitative data in their financial statements, like the amount of tax charged, tax paid, deferred tax, and current tax in the financial statements or a few footnotes on tax behaviour in the annual reports. This can make it difficult for different stakeholders (such as investors, consumers, academics, and government agencies) to ascertain the full picture of a corporation's tax position and practices. In the case of MNCs, when there are issues like transfer pricing,[1] thin capitalisation,[2] or the use of tax havens,[3] it becomes more difficult to evaluate the difference between genuine economic activities and activities undertaken as a part of aggressive tax planning. Interestingly, in most cases, the public can only know about such aggressive tax planning when litigation occurs with tax authorities and public disclosure of the tax incident is reported in the judgments, or when there is a leak of confidential information, such as the 2016 Panama Papers scandal.[4]

Globally, public debate around tax transparency and aggressive tax planning of MNCs has gained prominence. Policymakers are increasingly considering the implementation of tax disclosure regulations to try to enhance corporate accountability and tax transparency worldwide. Several organisations, like the Organisation for Economic Co-operation and Development (OECD), European Union (EU) and Global Reporting Initiative (GRI), and countries like the UK and Australia, have adopted standards or legislation for large corporations to publish certain tax information to increase tax transparency.

GRI, the most widely adopted global standard for corporate sustainability reports, introduces the GRI 207: Tax 2019 standard (GRI 207) (Global Sustainability Standards Board, 2019) with a primary objective of increasing tax transparency by providing a framework for enhanced disclosures by firms on their tax practices. Thus, GRI 207 requires significantly higher disclosure compared to prior regulations, with the aim of moving beyond minimal compliance and encouraging more consistent, public-facing tax accountability. Overall, the standard requires disclosure related to tax strategy, approach to taxation, governance, interaction with tax authorities, economic activities, stakeholder engagement and tax payment information in each jurisdiction.

Prior studies on GRI have inconsistent findings about tax transparency and tax aggressiveness. Kopetzki and co-authors (2023), through a textual analysis of sustainability disclosure reports between 2020 and 2021 from corporations in France, Germany, and Italy, found that when standards are non-binding, most tax disclosure content does not meet GRI 207 requirements. Göttsche and co-authors (2024) noted that country-by-country reporting (CbCR), an integral component of GRI 207, significantly benefits non-professional investors with limited financial literacy, as non-professional investors generally lack technical expertise and can have difficulty interpreting intricate

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[1] Transfer pricing is the pricing mechanism in cross-border transactions between related parties. It is argued to be manipulated for tax minimisation (OECD, 2015).

[2] Thin capitalisation is a situation where a company is financed with a high level of debt relative to its equity. It can be used to reduce the tax base at the country of operation by charging disproportionate interest expense deduction and to minimise tax (OECD, 2012).

[3] Tax havens are countries or jurisdictions with very low or no tax rates to attract foreign direct investments. Tax havens also facilitate tax avoidance (Dharmapala & Hines, 2009).

[4] The Panama Papers scandal refers to a massive leak of documents from a Panama-based law firm, Mossack Fonseca, revealing details about the operations of approximately 214,000 shell companies in tax havens worldwide (O'Donovan et al., 2019).

tax disclosures. The study further opined that CbCR is valued highly by the socially responsible and taxpayers with high tax morals. However, the study could not find any significant linkage between corporate tax strategy disclosure and investors' decision-making. In another study on French corporations, Arnaud and Giordano-Spring (2024) argued that corporations facing reputation risks increase tax disclosures in line with GRI 207. They also argued that tax disclosure alone is insufficient for achieving tax transparency because corporations may engage in aggressive tax planning using tax havens while emphasising compliance with tax regulations. On the other side, Rudyanto (2025) in the Indonesian context found that tax disclosure in GRI-based sustainability reports reduces aggressive tax behaviour.

These prior studies suggest an overall increase in tax transparency in response to the GRI standards, but their impact in curbing tax aggressiveness is still arguable. There are some limitations to these prior studies, such as involving a limited analysis of the standards or considering very short periods, as GRI 207 came into force in January 2021. It is argued that a longer time frame is recommended to analyse the impact of regulation. In addition, some of the prior studies excluded highly tax aggressive sectors, like the extractive industries. Further, these prior archival studies, useful for observing on-average firm behaviour in response to GRI 207, fail to capture detailed qualitative aspects such as how a firm responds to the interaction between voluntary frameworks like GRI 207 and mandatory regimes.

This study aims to explore four broad objectives using Shell plc (Shell) as a longitudinal case study. Note that prior to 2021, Shell plc was known as Royal Dutch Shell plc before changing its name to Shell plc. First, it critically evaluates the role of GRI 207 within the context of the UK's corporate tax disclosure environment by examining the extent to which the standard complements, overlaps with, or diverges from existing disclosure frameworks. Second, it seeks to assess whether GRI 207 introduces new dimensions of tax transparency, in terms of content and format. Third, it explores the impact of GRI 207 on corporate tax disclosure practices and tax behaviour, focusing on changes in disclosure volume and structure, as well as shifts in tax aggressiveness, measured through effective tax rates, over time. Finally, the research explores the broader significance of GRI 207 as a voluntary, soft-law framework in shaping corporate accountability and fostering responsible tax conduct.

To the authors' knowledge, no prior studies have observed these research areas over a decade for a large MNC in the extractive industries, which are often accused of high levels of tax aggressive behaviour (Lemaître, 2019).

The article is structured as follows. The next section will discuss the contemporary literature on tax transparency and provide an overview of regulatory reforms in this area. The third section will discuss the methodology used in this research, with the results of the Shell case study provided. This will be followed by the limitations and recommendations for future research before concluding.

2. LITERATURE REVIEW

2.1 Theories on tax disclosure

Several theories may assist in understanding the reasons behind tax disclosure. First, agency theory suggests that management discloses information to reduce conflict with shareholders (Hussain et al., 2018). It means corporations voluntarily disclose tax information to inform their stakeholders and to reduce information asymmetry (Boubaker et al., 2022). However, when tax aggressiveness is high, corporations either do not disclose information or use vague statements or footnotes (Inger et al., 2018). The reason for this is that corporations do not want to raise any scrutiny of tax auditors and the public by highlighting unfavourable tax information. It may expose corporations to future litigation and penalties (Dyreng et al., 2016; Akamah et al., 2018; Flagmeier et al., 2023).

In contrast, the legitimacy theory suggests that tax aggressive corporations make disclosures to justify their low tax payments, particularly when they fail to meet stakeholders' or societal expectations in tax matters (Balakrishnan et al., 2019; Mgammal, 2020; Kao & Liao, 2021). Further, the stakeholder theory predicts that corporations disclose tax information because their stakeholders find it relevant. Both theories suggest that when tax aggressive corporations face greater political and social pressure, they provide more disclosures (Lanis & Richardson, 2012; Laguir et al., 2015; Hardeck & Kirn, 2016).

Several studies have used the legal realism theory to explain the impact of soft law, like GRI, in addressing tax aggressiveness (Bird et al., 2018; Rudyanto, 2025). Legal realism theory suggests that law is comprised of hard and soft components. Hard law has concrete sanctions and regulations, while soft law lacks a strong binding force but is guided by social norms (Druzin, 2017; Plekhanova, 2023). Soft law often responds to corporations breaching hard law to address social issues (Steurer, 2010; Wichianrak et al., 2022). Soft law has its limitations in combating aggressive tax behaviour because it does not impose any punitive action. However, it is argued that soft laws can motivate corporations to comply with hard law (Christians, 2007; Sheehy et al., 2021). Rudyanto (2025) applied the 'tell-tale heart effect'[5] to describe the effect of GRI-based sustainability standards. The study argued that disclosures like GRI standards prompt corporations to adhere to tax regulations, modify their moral stance on taxation, and ultimately diminish aggressive tax avoidance practices. For example, where society demands that corporations include tax information in GRI-based sustainability reports, corporations are required to produce such disclosure. According to the 'tell-tale heart effect', this disclosure would lead firms to enhance their tax morals and avoid engaging in unethical tax minimisation.

The public disclosure of tax-related information can impose several costs on corporations. First, when corporations adopt legal but highly tax aggressive strategies, true disclosure may expose them to substantial reputational risks. The public may consider their tax planning as unethical (Arnaud & Giordano-Spring, 2024). Moreover, the damage can be more intense when such disclosure falsely portrays responsible tax behaviour (Middleton & Muttonen, 2020). This is clearly illustrated by the Starbucks example referred to earlier. Besides, tax disclosures are associated with various proprietary costs; competitors, suppliers, or different stakeholders may exploit the corporation with disclosed information by renegotiating contracts (Evers et al., 2014; Oats & Tuck, 2019). Therefore, corporations may prefer to refrain from transparency to

[5] The 'tell-tale heart effect' refers to overwhelming guilt or paranoia, where a person becomes consumed by their feelings of wrongdoing and often imagines that others can detect their guilt, similar to the narrator's experience in Edgar Allan Poe's 'The Tell-Tale Heart'.

avoid public scrutiny from the media, policymakers, and watchdog groups (Akamah et al., 2018).

Empirical studies have provided opposing views on tax aggressiveness and tax disclosure. One group found that corporations with lower ETRs or high levels of tax aggressive behaviour generally provide poorer disclosures and less detailed reports (Dunker & Willkomm, 2022; Belnap, 2023). In contrast, another group opined that corporations with high levels of tax aggressiveness attempt to mitigate the disclosure problem by increasing various tax disclosures (Mgammal, 2020). Xia (2025) finds that corporations that used to exhibit low ETR or high tax aggressiveness disclose more qualitative disclosure in their initial tax transparency reports. In addition, tax disclosures of tax-aggressive corporations tend to be longer, contain more justification words, and contain more soft claims than hard information (Kao & Liao, 2021).

Moreover, organisational attributes, like organisation type, size, and industry, can play an important role in tax disclosure patterns (Mgammal, 2020). The disclosure practice of extractive industries varies greatly from that of other sectors (Kvaal & Nobes, 2013). Studies find that large corporations, MNCs, or extractive industries, which different stakeholders continuously scrutinise, voluntarily issue additional information to remain in control of their disclosure environments (Kays, 2022).

2.2 Tax transparency initiatives in the UK

Since the GFC, public scrutiny of corporate tax strategy has significantly increased. Tax activists, non-government organisations (NGOs), and regulators called for tax reforms and increased transparency in tax disclosure (Oats & Tuck, 2019). The Extractive Industries Transparency Initiative (EITI), launched in 2003, was one of the earliest global efforts to improve revenue transparency within the oil, gas, and mining industries. At the national level, the UK tax strategy disclosure requirement, introduced under the *Finance Act 2016* (UK), represented a key shift toward public and qualitative reporting on corporate tax governance and planning. These initiatives provided an important foundation; however, this study centres on the interaction between GRI 207, the UK tax strategy disclosure, and OECD's country-by-country reporting (CbCR), three frameworks most directly relevant to understanding Shell's evolving tax disclosure practices.

2.2.1 UK tax strategy disclosure

In 2016, the UK government made legal requirements for corporations exceeding a specific size to disclose their tax strategy publicly (*Finance Act 2016* (UK)). The disclosure includes information on tax risk management, attitude towards tax planning, tax risk tolerance, and approaches to dealing with tax authorities and others. The primary objective of this disclosure was to enhance tax transparency. The disclosure requires addressing four key areas: the company's approach to tax risk management and governance, its stance on tax planning, its attitude toward tax risk, and its working relationship with HM Revenue and Customs (HMRC). The strategy must be approved by the corporation's board of directors, published on a publicly accessible UK website, and kept freely available. Although the requirement does not prescribe specific tax outcomes, it promotes greater transparency and accountability in corporate tax behaviour. Non-compliance may result in financial penalties and reputational harm.

The challenge is that unethical corporations may use such qualitative disclosure to avoid 'public shaming', diminishing the objective of the disclosure strategy (Bilicka, 2019). Conversely, the quality of the disclosure is another significant concern of qualitative disclosure. Misleading disclosures will convey inaccurate information about corporate tax practices to people (Inger et al., 2018; Dyreng et al., 2020). For example, Bilicka and co-authors (2025) found that following the implementation of mandatory disclosure requirements, the length of the tax strategy disclosures increased in the annual reports of the UK corporations, but these qualitative disclosures did not make a meaningful contribution to external stakeholders' decision-making. Qualitative disclosures primarily serve as a safeguard against negative public scrutiny. Therefore, the full realisation of the objectives of tax transparency is not achieved**.**

2.2.2 *Country-by-country reporting (CbCR)*

The most prominent and extensive development in tax transparency initiatives has been the OECD's base erosion and profit shifting (BEPS) Action Plan 13. The Action Plan outlined the framework for CbCR. MNCs with an annual consolidated revenue of EUR 750 million or more must file detailed reports on their global operations. This report includes information on income allocation, tax payments, and economic activities of each jurisdiction where the corporation operates (Seer & Wilms, 2016). MNCs are required to submit the CbCR annually to the tax authority of their ultimate parent entity's jurisdiction, and the concerned tax authority will share the report with other tax authorities under international agreements. The primary objectives of CbCR are to enhance transparency and compliance, and to assist tax authorities in assessing transfer pricing and other BEPS-related risks. Overall, the framework aims to reduce tax aggressiveness by requiring MNCs to pay taxes at the place of their economic activities and value creation (OECD, 2015).

Some researchers have endorsed the effectiveness of CbCR in increasing transparency and prompting substantial changes in tax reporting (Wójcik, 2015; Kurniasih et al., 2023; Yang, 2023; Godar et al., 2024). Conversely, CbCR also poses challenges such as ensuring data accuracy, protecting confidentiality, and managing compliance costs (Chen, 2017; Klaassen & Bobeldijk, 2019; Oats & Tuck, 2019). While country-by-country tax payment and economic activity reporting may discourage one mode of tax aggressiveness, being profit shifting, corporations may still exploit other modes of tax minimisation (Hugger, 2019; Joshi, 2020). Overall, the implementation of CbCR is considered a positive step towards global tax transparency, as it is expected to foster a more resilient and equitable international tax system. However, if CbCRs are only submitted to tax authorities and not publicly disclosed, corporations will still have the discretion to window-dress information to the public broadly.

2.2.3 *Global Reporting Initiative: Tax 207 (2019)*

In December 2019, the Global Sustainability Standards Board (GSSB) released a new sustainability standard, GRI 207, with an overarching aim of increasing organisations' tax transparency. GSSB claims to be the first global reporting standard for tax transparency, amidst other standards that were limited to regional and sectoral needs. GRI 207 is expected to enhance the credibility of the organisation. The standard informs stakeholders about a corporation's approach to tax, tax positioning, tax payment, and economic activities. Although it does not specify how to develop a sustainable tax strategy, corporations find their approach to integrate these requirements into their business policies. GRI 207 requires corporations to disclose 'material' tax information in four broad categories: approach, governance, concerns, and CbCR data. The following section analyses the details of GRI 207.

GRI 207 aims to enhance corporate tax transparency by introducing a structured and comprehensive framework for tax-related disclosures. Its primary objectives include increasing the volume and consistency of publicly available tax information, fostering stakeholder engagement on tax matters, and ultimately encouraging more responsible tax behaviour by firms. Unlike traditional financial disclosures, GRI 207 emphasises qualitative aspects such as tax governance, strategic alignment, and stakeholder dialogue, in addition to requiring country-level quantitative reporting. By embedding tax transparency into broader sustainability reporting, the standard seeks to make tax a visible part of a company's ESG responsibilities. These objectives provide a basis for evaluating GRI 207's impact, not only in terms of disclosure content and accessibility, but also in influencing organisations' behavioural shifts regarding tax planning and aggressiveness.

First, corporations will disclose their approach to tax (Standard 207-1), where they will reveal information about their tax strategy, its availability, and its linkage with corporate strategy. Secondly, corporations will disclose information about their tax governance, control, and risk management (Standard 207-2). An organisation also needs to describe the mechanism the organisation has regarding tax matters and the assurance process employed for disclosing tax information. Thirdly, corporations will disclose stakeholder engagement and management concerns related to tax (Standard 207-3). This would include descriptions of the engagement with tax authorities, tax-related public policy advocacy, and incorporating stakeholders' opinions. Lastly, the standard 207-4 requires the details about CbCR. It describes all tax jurisdictions where the corporations have material economic activity and tax payments. It will disclose the information on subsidiary or entity name, principal activity, number of employees with a basis of calculation, revenue from third-party sales and intra-group transactions, profit or loss before tax, tangible assets other than cash and cash equivalents, corporate income tax paid on a cash basis, tax accrued on profit or loss and the reason for the difference between tax accrued for each tax jurisdiction. It will also mention the reporting period of the disclosure.[6]

Drawing on the framework proposed by Hoopes and co-authors (2024), Table 1 summarises the key features of the recent transparency initiatives applicable to extractive industries in the UK. Specifically, it illustrates how these disclosure regulations and standards fit together by comparing key disclosure initiatives, including the UK tax strategy disclosure, the OECD's CbCR, EITI, and GRI 207, based on dimensions such as public vs private reporting, qualitative vs quantitative content, regulatory scope, and target audience.

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[6] Global Reporting Initiative, 'Topic Standard for Tax (GRI 207): A new global standard for public reporting on tax', https://www.globalreporting.org/standards/standards-development/topic-standard-for-tax/ (accessed 13 February 2025).

Table 1: Summary of the Tax Transparency Initiatives in the UK

Framework	Regulatory Scope	Mandatory / Voluntary	Disclosure Type	Audience	Scope and Coverage	Contribution
EITI (2003)	International	Voluntary / Public	Quantitative: Little contextual information	Public stakeholders in resource-rich countries	Extractive industries	Pioneered transparency in the extractive industry
UK Subsidiary Disclosure (Companies Act 2006, amended by SI 2016/1245)	Domestic	Mandatory / Public	Qualitative: List of subsidiaries, including country of incorporation and operation	General public and investors	UK-incorporated parent companies	Enhanced corporate structure transparency and identification of tax haven subsidiaries
UK Tax Strategy Disclosure (UK Finance Act 2016, Sch 19)	Domestic	Mandatory (for large companies) / Public	Qualitative: Strategy, risk appetite, engagement with tax authority	General public and stakeholders	UK-based large businesses	First mandatory public disclosure of corporate tax strategy
OECD CbCR (BEPS Action 13)	International Agreement	Mandatory / Private (to tax authorities)	Quantitative: Revenues, profits, taxes paid per jurisdiction	Tax authorities only	MNCs with revenue > EUR 750M, global operations	Enabled global tax risk assessment, but not public facing
GRI 207: Tax 2019	Global Sustainability Standard	Voluntary / Public	Mixed: Both qualitative (strategy, governance, concerns) and quantitative (CbCR)	Public stakeholders (investors, NGOs, media)	All companies opting for GRI, global operations	First tax standard integrated into sustainability reporting; enhances public trust

Despite the fact that GRI 207 could arguably represent a combination of the UK tax strategy disclosure requirement and the OECD's private CbCR, both of which became effective in the UK in 2017, how GRI 207 fits into the existing UK tax disclosure landscape remains largely unexplored. Moreover, whilst there have been several measures to try to improve the tax transparency of corporations, as shown in Table 1, the question arises as to how effective have these measures been? This study seeks to provide insights on these research gaps at an organisational level by drawing insights from publicly available documentation relating to Shell to explore the four broad stated objectives, namely, evaluating the role of GRI 207 within the context of the UK's corporate tax disclosure environment; assessing whether GRI 207 introduces new dimensions of tax transparency in terms of content and format; investigating the impact of GRI 207 on corporate tax disclosure practices and tax behaviour; and exploring the broader significance of GRI 207 as a voluntary, soft-law framework in shaping corporate accountability and fostering responsible tax conduct.

3. METHODOLOGY

This study uses a case study method to analyse Shell's tax disclosures in the pre- and post-GRI 207 periods (from 2011 to 2023). Case study research is a qualitative approach focused on exploring real-life, contemporary 'bounded systems' (cases) over time through detailed, in-depth data collection from multiple sources, such as interviews, observations, and documents (Stake, 1995). It ultimately seeks to provide rich descriptions and identify key themes that illuminate the peculiarities of the case (Hyett et al., 2014). In designing an appropriate research method to explore the effect of tax transparency requirements, one important determinant is the necessity to study actual behaviour rather than rely on data collected by other methods. The case study design was based on the framework devised by Yin (2009), as it allows both theoretical and literal replication to be used. Case study research appears to be the most appropriate and most common method in social science studies (Yin, 2009).

The case study method is particularly well-suited for this research because it allows for an in-depth and context-rich analysis of disclosure practices over time, which is essential for understanding the nuanced impacts of a voluntary, narrative-based framework like GRI 207. Unlike the archival method, which typically focuses on broad patterns across large datasets, the case study approach enables tracing how Shell has interpreted, adopted, and integrated GRI 207 into its various reporting channels, including annual reports, sustainability reports, Payments to Governments Reports (P2GR), and Tax Contributions Report (TCR) disclosures within the UK's established regulatory environment. This method facilitates the examination of both observable shifts, such as changes in disclosure length and effective tax rates, and less tangible elements, such as the strategic language used in tax narratives. It also allows for the analysis of interactions between GRI 207 and existing disclosure mandates, capturing Shell's response not only in form but also in substance. Considering the objective of the study to examine GRI 207's function as a soft-law tool for enhancing meaningful tax transparency, a longitudinal case study offers the analytical depth, adaptability, and contextual understanding that a strictly archival method would lack.

Shell was chosen as the subject of this case study because of its presence in a complex regulatory environment and high public expectations regarding tax transparency as a UK-based multinational. Shell operates within a jurisdiction that mandates multiple layers of tax disclosure, including the subsidiary disclosures under the *Companies Act 2006* (UK) section 409, UK tax strategy disclosure, mandatory P2GR disclosure, and participation in the OECD's non-public CbCR. Further, the company extends its operations globally, including to tax havens. This environment creates an ideal context for examining how a voluntary standard like GRI 207 interacts with the corporation's disclosure obligations. Shell publicly claims to align with GRI 207 and incorporates several of its components, such as tax governance and stakeholder engagement, into its reports. However, it does not fully comply with the GRI 207-4 requirement for public CbCR; instead, it uses the OECD's CbCR format, which is structured differently. This partial compliance offers a valuable lens to explore the challenges of harmonising voluntary and mandatory frameworks. Furthermore, Shell represents a highly relevant case due to its industry and reputation. MNCs in the extractive sector are frequently accused of aggressive tax planning (Kays, 2022), and Shell, one of the largest corporations in the global extractive industry by market capitalisation, publicly positions itself as a pioneer in tax transparency. Nonetheless, it has a documented record of rapid compliance with emerging transparency standards (Shell, 2024, p. 16). These characteristics make Shell a compelling and information-rich case study for analysing whether GRI 207 drives meaningful change or simply codifies what organisations already disclose.

This study analyses Shell's Annual Reports, Sustainability Reports, P2GR, and TCR as they represent the corporation's primary public-facing disclosure in terms of tax transparency. These reports are particularly relevant because they align closely with the disclosure categories outlined in GRI 207, especially in terms of strategic narrative, governance, stakeholder engagement, and jurisdictional tax data. Although the UK tax strategy disclosure is a legal requirement under the *Finance Act 2016* (UK), Shell typically embeds this content within its Sustainability Report as part of its compliance with regulatory obligations. For this reason, the UK tax strategy disclosure was not analysed as a separate report. Furthermore, Shell's TCR also incorporates the required tax strategy disclosures within a broader voluntary transparency framework. These four report types are therefore suitable for examining how Shell's tax disclosures have evolved before and after the introduction of GRI 207, and how the organisation engages with broader stakeholder groups through public reporting, in line with GRI's emphasis on stakeholder-focused transparency. The objectives of this study are addressed by specifically examining the tax disclosure length, a thematic and strategic content analysis, performing a cross-outlet comparison of the disclosure content and form and through an analysis of the tax aggressive behaviour of Shell over the period of the study.

3.1 Measurements of variables

Consistent with prior studies, tax disclosure length is measured based on the number of items disclosed in publicly available reports (Mgammal, 2020). This study used the number of words in the reports on tax disclosure as disclosure volume. Tax Transparency Statements were identified as any text discussing tax principles, payments, governance, or stakeholder engagement that went beyond mandatory financial statement disclosures. Tax aggressiveness is measured using ETR, global income tax expense divided by pretax accounting income, and Cash ETR, global income tax paid divided by pretax accounting income. It is acknowledged that ETR can be problematic in measuring tax aggressiveness, as the low tax payable can be due to many legitimate reasons, such as differences in accounting and taxation rules regarding depreciation, provisions, allowances, and exemptions (Hanlon & Heitzman, 2010; Krever et al., 2022). However, researchers have extensively used ETR as a proxy for tax aggressiveness in tax research, especially in studies of tax transparency (Mgammal et al., 2018; Joshi et al., 2020; Overesch & Wolff, 2021; Kurniasih et al., 2023; Yang, 2023; Garcia-Bernardo & Janský, 2024; Kobbi-Fakhfakh & Driss, 2024).

Furthermore, to reduce the periodic income distortion and timing difference, the study also measured long-run ETR and long-run Cash ETR. The long-run ETR is measured using total tax charged during the pre- and post-GRI 207 period, divided by the pretax income of the subsequent period. The long-run cash ETR is measured in the same way, except for replacing the tax-charged amount with the tax-paid amount. Dyreng and co-authors (2008) introduced the long-run ETR concept to mitigate the impact of accrual or deferral strategies. By considering a longer timeframe, the long-run ETR and cash ETR minimise the mismatch between cash taxes and earnings while dampening the effect of carrying forward losses.

In addition, to test the robustness of the findings, an Adjusted Effective Tax Rate (Adjusted ETR) is calculated as suggested by Schwab and co-authors (2022). The Adjusted ETR refines the statutory tax rate by incorporating permanent differences, non-deferrable expenses, foreign income, and subtracting tax credits, domestic production activities deduction, and foreign taxes paid. This offers a clearer view of structural tax aggressiveness strategies. However, its application is limited by data availability, but as the study focuses on a single organisation, Adjusted ETR is calculated from tax reconciliation disclosure and financial statements.

3.2 Data and sample

For this study, data were obtained from published reports comprising 13 Annual Reports, 13 Sustainability Reports, 11 P2GR and 5 TCR relating to the selected case, Shell, for the period 2011 to 2023. Note that the 2011 data are reports of the 2010 financial year, as every report is published in the subsequent year. That means the financial performance observed in the study is between 2010 and 2022. All these reports are publicly available on the corporation's website: www.shell.com. Observations began from the 2010 financial year's report to observe the change after the GFC.

4. RESULTS DISCUSSION

The observation period of the tax disclosure is classified into two periods: pre-GRI 207 (2011 to 2018) and post-GRI 207 (2019 to 2023). The disclosure pattern is summarised in Table 2.

During the pre-GRI 207 period, up to 2011, tax disclosure was limited to the Annual Reports and the Sustainability Report. In 2012, Shell started publishing its P2GR voluntarily. Later, in the post-GRI 207 period, it started TCR in 2019. The year 2019 is considered the benchmark period for post-GRI 207 because in this year, Shell started disclosing information related to GRI 207 voluntarily. Besides, the GRI 207 was first recommended by the Technical Committee on tax and payments to the government of the Global Sustainability Standards Board on 28 June 2018. From that year, the draft of the standard was open for public opinion, and finally, it was released on 8 December 2019. As the standard was known to corporations from the end of 2018, corporations could adopt its suggestions in 2019. Hence, 2019 is considered the first year of the post-GRI 207 period for Shell.

Table 2: Tax Disclosure Pattern of Shell from 2011 to 2023

Report Year	Publication Year	Annual Report (Word Count)	Sustain-ability Report (Word Count)	P2GR (Word Count)	TCR (Word Count)	Total Word Count (Summation of (3) to (6)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
2010	2011	2418	93	-	-	2511	Pre GRI
2011	2012	1966	156	1111	-	3233	
2012	2013	1946	227	1203	-	3376	
2013	2014	2269	270	1232	-	3771	
2014	2015	2573	300	2596	-	5469	
2015	2016	2532	725	5256	-	8513	
2016	2017	2995	778	6010	-	9783	
2017	2018	3837	753	5659	-	10249	
2018	2019	3318	869	5804	29810	39801	Post GRI
2019	2020	4096	224	5283	37536	47139	
2020	2021	3717	346	4541	40505	49109	
2021	2022	4271	288	4473	42871	51903	
2022	2023	3009	349	4806	38782	46946	

Note: This Table presents word counts for the various reports analysed in the study, where P2GR refers to the Payments to Government Report and TCR refers to the Tax Contributions Report.

4.1 Annual Report

The Annual Reports were the main source of tax information before the publication of the P2GR. The Annual Reports primarily focused on providing figures such as total tax expense in the income statement, deferred tax in the balance sheet, and current tax payments in the cash flow statement. Although the word count for the Annual Report is higher than that of other disclosures except TCR, these are mainly financial figures. These disclosures are revealed mostly to comply with accounting and financial reporting standards. Other than this, very limited tax information is found in the Annual Reports.

During the pre-GRI period, Shell's annual reports show modest and consistent tax disclosures. The lengths of tax-related content ranged from a low of 1,946 words in 2013 (published year) to a high of 3,837 in 2018. Most of these disclosures were often within broader financial reporting sections, without a dedicated narrative or explanation on tax strategy. Key highlights in the Annual Reports during this period included in the form of notes, audit focus and Key Audit Matter (KAM). For example, in the Annual Report 2017, the implications of the United States of America (USA) tax reform were recorded as a KAM.

In the post-GRI period, disclosure length increased significantly, starting at 3,318 words in 2019, peaking at 4,271 in 2022, and even the slight drop to 3,009 in 2023 still exceeded all pre-GRI levels. In terms of audit attention, tax gained prominence during the post-GRI years. It was included as a KAM in 2020, 2021 and 2022's Annual

Reports. However, most of the disclosure is still financial figures, like the pre-GRI period. The type of qualitative disclosures in the Annual Report is mainly 'boilerplate' type statements. For example, in the 'Taxation' notes section of the consolidated financial statement of 2018, Shell has made the following statement (Royal Dutch Shell, 2019a, p. 197), which is repeated in all years through to 2019 to 2022 (Royal Dutch Shell, 2020b, p. 222; Shell 2021a, p. 246; Shell 2022a, p. 261; Shell, 2023a, p. 284):

> The presentation in the balance sheet takes into consideration the offsetting of deferred tax assets and deferred tax liabilities within the same tax jurisdiction, where this is permitted. The overall deferred tax position in a particular tax jurisdiction determines if a deferred tax balance related to that jurisdiction is presented within deferred tax assets or deferred tax liabilities.

Overall, Annual Reports provided very limited additional disclosure regarding tax, other than required by accounting or financial reporting standards, and the content and length showed little variation since the implementation of GRI 207.

4.2 Sustainability Report

The Sustainability Report is prepared following the GRI and the International Petroleum Industry Environmental Conservation Association guidelines and includes additional tax disclosure as a part of voluntary tax transparency. The tax disclosure in the Sustainability Report was limited to only a few paragraphs featuring 'Revenue Transparency'. In 2011 (published year), the report contained only a 93-word paragraph. In the report, Shell (Royal Dutch Shell, 2011, p. 7) made the following remark:

> In the interests of transparency and accountability, we believe in the disclosure of revenues that extractive industries pay to host governments.

However, in that year, Shell did not disclose information on tax payments to different governments; it only mentioned the total amount of tax paid globally. Gradually, Shell increased disclosure in the sustainability report every year. Incrementally, the reports began adopting a more formal structure, incorporating Shell's support for mandatory global reporting and referencing regulatory changes in the EU and UK. The disclosures also became more robust, outlining Shell's alignment with OECD principles, commitment to avoiding double taxation, and use of only government-sanctioned incentives. In 2016 and 2017, Shell began linking its tax principles directly to internal governance structures, with explicit references to the Board's oversight of tax as part of its risk management framework. However, the UK Tax Strategy disclosure 2016 came into action from 2017, so the disclosure related to tax strategy also altered.

After the effect of the UK tax strategy disclosure, Shell specifically addressed the four mandated areas: tax risk management, planning, risk appetite, and interaction with HMRC. Shell outlined its governance processes, responsible tax planning principles, low-risk appetite, and cooperative approach to engaging with HMRC. For example, in the Sustainability Report 2016 (Royal Dutch Shell, 2017, p. 65), it is mentioned:

> We comply with applicable tax laws wherever we operate. We are transparent about our tax payments to governments, and we strive for an open dialogue with them. This approach helps us to comply with both the letter and the spirit of the laws.

In 2018, a significant change took place in the Sustainability Report. This year, Shell started mentioning tax payments as a contribution to society. In the Sustainability Report 2017 (Royal Dutch Shell, 2018, p. 36), it stated:

> Our contribution to society includes providing people with access to energy products. The company also contributes through paying taxes, procuring local goods and services, hiring locally, and supporting social investment programs. All this is underpinned by our core values of honesty, integrity, and respect for human rights.

Furthermore, Shell formalised its adherence to the B Team[7] Responsible Tax Principles and emphasised its participation in the OECD's International Compliance Assurance Program (ICAP). The reports in this period offered consistent disaggregated global payment figures, but disclosures remained at the aggregate country level, and voluntary CbCR had yet to begin. However, these disclosures focused primarily on compliance and efficiency, offering little insight into Shell's broader tax philosophy or transparency initiatives.

A shift came in 2019, with the release of Shell's first TCR, introducing voluntary CbCR disclosures for corporate income tax, initially covering one year, and later expanded. The following year, the Sustainability Report included not just global and regional figures but commentary on Shell's presence in low-tax jurisdictions, examples of structural changes (such as exiting financing operations in Bermuda and Switzerland), and a full outline of its seven Responsible Tax Principles. This evolution reflected a clear response to stakeholder demand for granularity, accountability, and ethical tax conduct. Moreover, Shell disclosed new taxes introduced in 2022, such as the EU solidarity contribution and the UK Energy Profits Levy, showing the company's adaptive transparency in a shifting tax environment.

Throughout the post-GRI period, Sustainability Reports also featured detailed accounts of Shell's engagement with policymakers, its role in developing the Dutch Tax Governance Code (TGC), and continued alignment with international best practices like EITI and Business at OECD.

While Annual Reports focused primarily on statutory tax expense disclosures and deferred tax notes, the Sustainability Reports engaged with broader stakeholder concerns and included elements such as stakeholder engagement and tax-related incentives, areas that were either absent or only superficially addressed in the Annual Reports.

4.3 Payments to Governments Report (P2GR)

In 2012, Shell published its first P2GR, which was only a two-page (1,111 words) statement of tax payment about 14 selected countries. Regarding this disclosure, Shell's Chief Financial Officer made the following comment in the report (Royal Dutch Shell, 2012, p. 1):

[7] The B Team is a global non-profit organisation that promotes sustainable, responsible, and ethical business practices. The B Team Responsible Tax Principles focus on tax management, interactions with different authorities and other stakeholders and reporting. See The B Team, 'Advancing responsible tax practice', https://www.bteam.org/our-work/causes/governance/advancing-responsible-tax-practice (accessed 1 December 2025).

> In the interests of transparency and accountability, we believe in the disclosure of revenues that extractive industries pay to governments.

This statement is very similar to the remark in 2011 for the Sustainability Report (see above). It includes information on income tax, royalties, sales tax, and production by segments (Upstream and Downstream/Corporate) in different countries.

From 2013 to 2015, the format and coverage remained relatively static. However, in 2016, Shell began complying with the UK's Report on Payments to Governments Regulations 2014 (amended in December 2015), marking a major shift from voluntary to mandatory reporting. The number of reported countries increased in that year to 24, excluding countries where payments were below GBP 86,000.

By 2017, the report encompassed 29 countries, with disclosures presented at both the country and project levels. The disclosure length also increased to over 6,000 words by 2016. Despite this growth, the reports during this phase remained predominantly quantitative, lacking a strategic narrative or governance context.

The post-GRI period marks a further evolution, with Shell embedding tax transparency within a broader corporate framework through the introduction of the TCR in 2019. While Shell continued to publish the P2GR in compliance with UK regulations, its prominence diminished as the TCR assumed the central role in articulating Shell's tax values, strategy, and stakeholder commitments. This shift is evident in the declining P2GR word counts, from 5,804 in 2019 to 4,473 in 2022, with a slight increase to 4,806 in 2023, indicating a streamlining of the report's function within the company's suite of disclosures (see Table 2).

Despite this reduced length, the depth and specificity of the P2GR remain unmatched. For example, the 2020 P2GR includes highly detailed information on project-by-project payments, specifying the government entities receiving funds, differentiating between operator and partner payments, and even noting refunds and negative payments. It also discloses in-kind payments made through production-sharing agreements, which are not reported in Shell's other reports. Furthermore, the P2GR offers methodological transparency, explaining definitions, thresholds (such as the GBP 86,000 minimum), exchange rate treatment, and the basis for project classification. These features give the report a level of technical precision and regulatory clarity absent from the more narrative-driven Sustainability Report or the consolidated financial summaries in the Annual Report. The P2GR complements Shell's tax principles, governance structures, and ethical commitments with granular financial disclosures.

4.4 Tax Contribution Report (TCR)

The introduction of Shell's TCR marked a major milestone in the company's approach to tax transparency. Unlike the Annual Report, Sustainability Report, and P2GR, the TCR provided a dedicated platform for Shell to articulate and document its tax contributions, strategies, and governance in a detailed, structured, and values-driven manner. Over the period, the TCR expanded significantly in both volume and scope, growing from approximately 29,810 words in 2019 to 42,871 in 2022, before slightly decreasing to 38,782 in 2023. This steady increase in word count signals a growing institutional commitment to providing stakeholders with deeper, more nuanced insights into Shell's global tax practices. Regarding the TCR, Shell mentioned in the report (Royal Dutch Shell, 2019b, p. 3):

> This report builds on the information Shell provides in its Annual Report and Form 20-F, Sustainability Report, and Payments to Governments Report. For the first time, Shell voluntarily publishes the corporate income tax paid in each country and location for 2018.

Further, the Chief Financial Officer mentioned (Royal Dutch Shell, 2019b, p. 4):

> But transparency is about more than just numbers. It is also about providing insight into our corporate structure and why we own entities in different countries and locations. It is about explaining why we pay the taxes we pay, and why we are not required to pay taxes in some jurisdictions. It is about providing greater understanding of our business activities around the world: where we make our profits, and where we are investing.

Shell did not mention the adoption of GRI 207 in the TCR published in 2019 because, at that time, it was not officially in operation, but it includes most information under GRI 207-1 (approach) and GRI 207-3 (concerns). This is because Shell complied with the UK requirements of tax strategy disclosure and payment to government requirements, and the GRI 207 includes information on both reports.

Besides, in this report, Shell published the first comprehensive CbCR, including tax payment information for 98 countries out of their presence in 99 countries. This information also includes most conditions of GRI 207-4. However, for CbCR, Shell follows the guidelines of BEPS Action Plan 13 rather than adhering to those of GRI 207-4. It appears that Shell used this first year to start to develop internal systems to see if it could gather the relevant information ready for the hard start date of 2021.

In the next years, Shell continued the TCR and increased the disclosure to 37,536 words, keeping it consistent with 2019. In 2020, Shell also updated its tax principles and adopted the B Team Responsible Tax Principles. In the TCR, Shell continued to disclose and justify sensitive tax issues such as book and tax income differences, availing tax incentives or presence in tax havens. For example, in TCR 2019, Shell provided an explanation about ETR (Royal Dutch Shell, 2020, p. 33):

> Average oil and gas industry prices in 2019 were lower than in 2018. This would have led to an expectation of a reduced ETR. However, in 2019 we had more expenses that are not deductible for tax purposes and one-off accounting adjustments, resulting in a higher ETR of 35.5% in 2019 compared with 32.9% in 2018.

In 2021, when Shell published its TCR 2020, GRI 207 became officially effective. Shell declared that GRI 207 would be followed from this year. The TCR for 2020 covers the Covid-19 pandemic year. That year, the world experienced the first negative oil price in history, and Shell recorded a loss of USD 27 billion. However, Shell still paid USD 3.4 billion in corporate income tax in 2020, largely because of the payment of some taxes in arrears and the profit of some companies in a few jurisdictions, resulting in a negative ETR. Furthermore, Shell disclosed that it utilised 153 types of tax incentives in that year. As tax incentives are susceptible to measures of tax avoidance, Shell justified their use in the report as follows (Shell, 2021b, p. 25):

> We seek to ensure that tax incentives are transparent and consistent with statutory and regulatory frameworks before deciding whether to make use of

> them. We only make use of incentives where they are aligned with our business and operational objectives and where we have a qualifying business activity.

Further, Shell mentions (Shell, 2021b, p. 26):

> We will escalate a decision to accept tax incentives that are not specified in law or not generally available to other industry participants. If we accept any such incentives, we will encourage the relevant authorities to make details of these incentives publicly known. In addition, we will make data available for governments to assess the economic impact of incentives when requested to do so by the relevant authorities.

In 2022 and 2023, Shell continued to comply with the GRI 207 except for the CbCR. The disclosure length for the TCR was 42,871 and 38,782 words, respectively. Interestingly, the disclosure volume decreased slightly in 2023. However, Shell continued to mention their tax strategies and linked them with the corporation's overall strategy. For example, Shell provided a qualitative explanation of their presence in tax havens (Shell, 2022b, p. 34):

> We conducted a review in 2019 and 2020 of Shell-controlled and Shell-operated entities incorporated or present in low-tax jurisdictions against our Shell Responsible Tax Principles. The review considered the purpose of the entity and whether it should continue to be in that jurisdiction. We identified entities that are no longer active and can be liquidated as a matter of good corporate governance. We also identified entities that can be restructured, held, or operated from another jurisdiction. In other cases, our review concluded that the entities could remain in low- or zero-tax jurisdictions because there was a commercial reason for being there. Since 2019, we have liquidated 18 legal entities in low-tax jurisdictions, including in Bermuda and Saint Lucia, and we are liquidating 33 others.

Before the publication of the TCR, such information was highly confidential to the corporation and was hard to obtain for an outsider. However, the standard made it publicly available. Research has demonstrated that MNCs often shift profits to tax havens where they do not have substantial economic activity (Garcia-Bernardo et al., 2021; Garcia-Bernardo & Janský, 2024). From the quoted statement from the TCR, it is observed that Shell is informing its stakeholders about their presence in tax havens, and they are also justifying their presence in tax havens due to commercial reasons, like crude oil trading and retail sites. However, a generic example is mentioned as a commercial reason, and why any specific jurisdiction was chosen is not mentioned. Further to justify their presence, Shell states (Shell, 2022b, p. 34):

> In line with the Shell Responsible Tax Principles, we do not use these jurisdictions to avoid tax on activities that take place elsewhere.

Overall, it appears that many of the statements made appear to be consistent with legitimacy theory to justify either low tax payments or the transactions undertaken. While the tax disclosure is part of 'soft law', it is not clear whether the 'tell-tale heart effect' has really resulted in Shell reducing its engagement in unethical tax minimisation.

The TCR differentiates itself from Shell's earlier reports by integrating detailed financial disclosures with strategic narratives. Unlike the Annual Report or

Sustainability Report, TCR presents consolidated tax expenses and ETR reconciliations without disaggregation or context and provides CbCR tax data, explains variations in tax payments, and includes narratives on tax incentives, low-tax jurisdictions, and Shell's operational choices.

Compared to the P2GR, which remains focused on disaggregated payment data (such as royalties, bonuses, and production entitlements) at a project and country level, the TCR offers a strategic synthesis. It not only integrates the P2GR's factual payment disclosures but also explains how and why these payments are made. It provides a clear narrative on methodology and treatment of refunds, and changes in reporting structure, thus providing readers with the context to interpret the raw data meaningfully.

A thematic comparison across Shell's disclosure outlets before and after GRI 207 is summarised in Table 3.

Overall, the four reports share a common foundation to enhance transparency and build public trust. The findings demonstrate that the TCR does not replace the other reports but complements them, building upon their strengths while filling critical gaps. It incorporates the quantitative precision of the Annual Report, the ethical tone of the Sustainability Report, and the regulatory compliance of the P2GR. In doing so, it appears that Shell's TCR sets a high benchmark for integrated tax transparency.

Table 3: Comparative Thematic Evolution Across Reports

Report Type	Pre-GRI 207	Post-GRI 207
Annual Report	• Basic tax expense and deferred tax figures • Minimal narrative disclosures	• Slight increase in tax discussion length • Continued focus on financials, including tax in KAM
Sustainability Report	• Brief mention of tax payments • Emphasis on compliance, transparency principles	• Explicit link to tax strategy and governance • Inclusion of stakeholder engagement, tax fairness, and societal framing
P2GR	• Started voluntary reporting • Country-level payments for selected jurisdictions during the voluntary regime.	• Expanded country/project coverage • Slight decline in length post-TCR introduction
TCR	Not published	• Introduced in 2019 • Integrates strategy, payments, and justification • GRI-aligned • Detailed CbCR data

Further, after analysing the reports, the tone and language of the disclosures do not suggest that Shell was addressing any particular stakeholder group, but suggest an incremental change in disclosure. However, in the post-GRI 207 period, particularly through the TCR, Shell's emphasis on tax contributions to society, justification of tax incentives, and explanations around presence in low-tax jurisdictions reflect a broadened narrative. This suggests a gradual shift away from investor-centric reporting towards acknowledging the concerns of NGOs, civil society, and socially responsible stakeholders. Whilst this shift is likely driven by rising societal expectations for transparency, GRI 207 appears to have provided a structured opportunity for Shell to extend its stakeholder engagement by embedding these concerns more explicitly in its tax disclosures.

4.5 Shifts in tax aggressiveness

In an endeavour to see if tax disclosure has reduced tax aggressive behaviour by Shell, the ETR is calculated. Shell's tax aggressiveness is calculated for each year using its ETR and Cash ETR. Further, long-term ETR and long-term Cash ETR are also calculated for the pre- and post-GRI 207 period. The results are summarised in Table 4.

Shell's ETR and Cash ETR fluctuated over time. ETR could not be calculated in 2016 and 2021, because the company experienced a negative income tax charged in 2015 and pretax loss in 2020. In 2015, Shell recognised significant impairment adjustments due to the discontinuation of certain large projects and activities, such as Alaska drilling and the Carmon Creek project in Canada. Also, oil and gas prices reduced significantly in the year, resulting in a low pretax income. Moreover, Shell paid some arrears tax and advance tax in that year which did not correspond to 2020's income. This resulted in an unusually high cash ETR. On the other side, 2020 was the Covid-19 year when oil use and price reached a record low and resulted in a large loss for Shell. Therefore, it is argued that the ETR and Cash ETR of 2016 and 2021 are not comparable for impact analysis.

Table 4: Calculated ETR, Cash ETR, Long-Term ETR, and Long-Term Cash ETR

Report Publication Year	Pretax Income (USD in millions)	Tax Paid (USD in millions)	ETR (%)	Cash ETR (%)	Adjusted ETR (%) (Schwab et al, 2022)	Long ETR (%)	Long Cash ETR (%)
2011	35,344	15,362	42	43	53	43	49
2012	55,660	22,622	44	41	52		
2013	50,289	21,030	47	42	56		
2014	33,592	20,309	51	60	61		
2015	28,314	14,299	48	51	50		
2016	2,047	7,673	-*	-*	135		
2017	5,606	4,434	15	79	51		
2018	18,130	6,307	26	35	35		
2019	35,621	9,671	33	27	37	37	33
2020	25,485	7,605	36	30	33		
2021	-26,967	3,290	-*	-*	27		
2022	29,829	5,476	31	18	39		
2023	64,815	13,120	34	20	35		

*: ETR could not be calculated in 2016 and 2021, because the company experienced a negative income tax charge in 2015 and pretax loss in 2020.

To overcome the unusual nature of ETR and Cash ETR for 2016 and 2021, long-term ETR and long-term Cash ETR are calculated. The period of pre- and post-GRI 207 time is used to measure these variables. Long-term measures eliminate the limitations of the arrears tax and the advance tax. As a longer period is considered, it provides a more comprehensive picture of the tax strategy of the corporation, minimising deferred tax issues. It shows that in the post-GRI 207 periods, long-term ETR and long-term Cash ETR decreased to 37% and 33% from prior periods of 43% and 49%, respectively. This would suggest that the greater tax disclosure has led to a lower effective tax rate.

In addition to testing the robustness of the ETR-based measure, the study calculated the Adjusted ETR to find the structural tax aggressiveness. In the pre-GRI period, Adjusted ETR was mostly above 50% except in 2018. On the other hand, in the post-GRI period, Adjusted ETR was mostly less than 40%. That means, in the post-GRI period, Adjusted ETR also decreased.

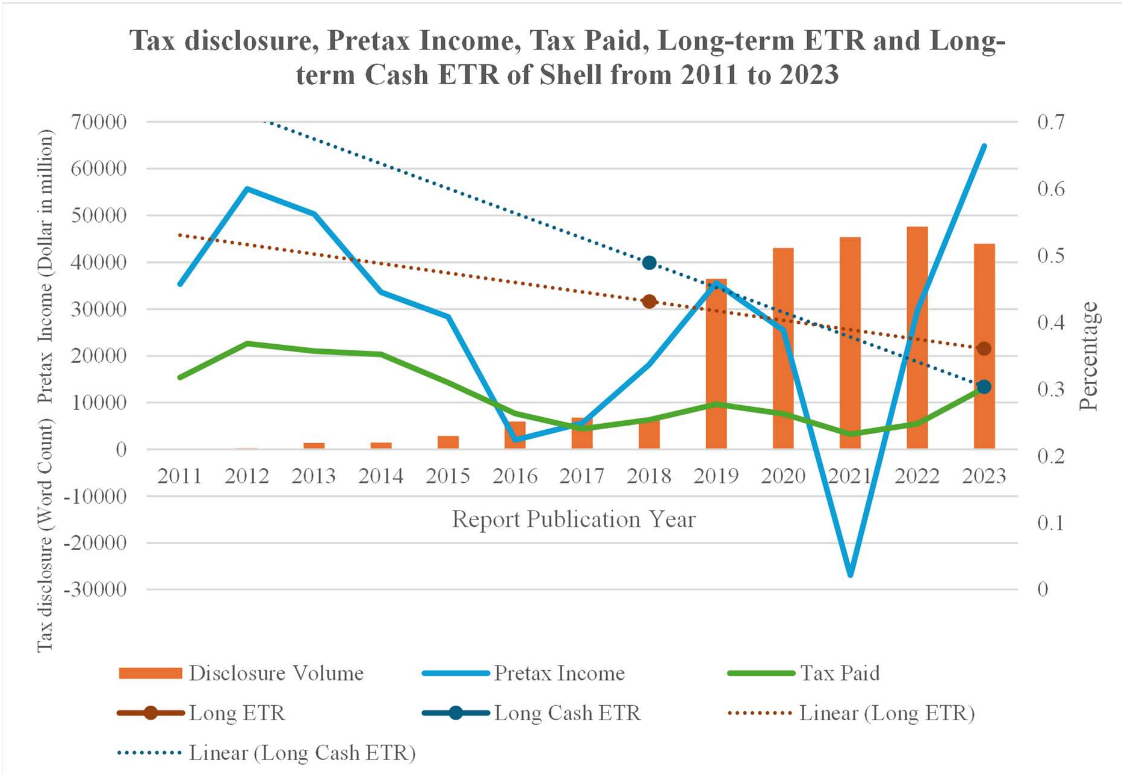
To observe the tax disclosure trend during the study period with pretax income and cash tax paid, a time series was developed, with a linear plot drawn by putting the long-term ETR and long-term Cash ETR points on a graph. Figure 1 illustrates that in the post-GRI 207 period, the tax payment to pretax income trend changed compared to the pre-GRI period. The gap between tax payments and pretax income increased significantly in the post-GRI period. Meanwhile, in the post-GRI period, tax disclosure also increased significantly. Therefore, it indicates that while Shell's tax disclosures have increased, the corporation has also adopted strategies to reduce its tax burden.

These findings are overall consistent with those of Mgammal (2020) and Xia (2025), that is, it appears that Shell has attempted to mitigate the disclosure problem when there are low effective tax rates by increasing its volume of tax disclosure. Additionally, while there are longer disclosures, there can be an absence of hard (detailed) information (Kao & Liao, 2021). This can suggest that the more words used in a disclosure, the more there might be to be concerned about.

5. FINDINGS

Shell's tax transparency evolved markedly between 2011 and 2023. Prior to GRI 207, tax-related disclosures were largely shaped by UK legal requirements in the Annual Report and Sustainability Report. These were mainly financial statements and a brief overview of tax compliance. A notable turning point is the UK's 2016 tax strategy disclosure requirement. The law required Shell to publish more structured and narrative-driven discussions on governance and tax risk. Simultaneously, Shell began publishing the P2GR, voluntarily reporting tax payments in 14 countries. Once the reporting became mandatory, the number of reported countries increased to 24, and eventually to 34 in the post-GRI period. From 2019, TCR highlights the limitations of voluntary disclosures compared to regulatory mandates. It also supports the argument that non-regulatory, reputational forces can alter organisations' cost-benefit calculus around tax behaviour (Dyreng et al., 2016).

Fig. 1: Long-Term ETRs and Tax Disclosure



It is suggested that the TCR marked a strategic shift in Shell's transparency approach. It is aligned closely with GRI 207. Unlike the Annual Report or P2GR, the TCR consolidates financial data, governance, and stakeholder narratives into a dedicated platform. Even before GRI 207 took effect, Shell's early TCRs reflected partial alignment, particularly with GRI 207-1 (tax strategy), 207-2 (governance), and 207-3 (stakeholder engagement). However, Shell opted to report CbCR data using the OECD's BEPS Action Plan 13 bottom-up approach rather than adopting GRI 207-4's top-down, public format (Brown et al., 2024). This suggests Shell's selective compliance based on reputational and commercial considerations.

Between 2019 and 2022, TCR disclosure volume increased approximately 40%, demonstrating institutional commitment to transparency. These reports introduced granular justifications on sensitive issues such as tax incentives, presence in low-tax jurisdictions, and book-tax differences. Shell disclosed using 153 tax incentives in 2020 alone and framed their legitimacy around business alignment and legal compliance. The TCRs also included narrative explanations for Shell's presence in tax havens, liquidation of 18 entities, and plans to restructure or exit others, citing commercial reasons. While this aligns with the transparency goals of GRI 207, it is also possible that the disclosures were intended more for legitimacy management rather than to evidence behavioural change.

To assess the behavioural impact of GRI 207, Shell's tax aggressiveness was measured using ETR, cash ETR, long-term ETR, and adjusted ETR. On average, during the post-GRI period, Shell's ETR and cash ETR were lower than in the pre-GRI period. Even the long-term ETR and long-term cash ETR also reduced in the post-GRI period. Moreover, the adjusted ETR that represents structural tax aggressiveness decreased in the post-GRI period. That means, after adopting higher disclosure, Shell became more tax aggressive in terms of ETR-based measures. However, this finding contrasts with findings like Rudyanto (2025), who observed reduced tax aggressiveness with increased transparency in Indonesian firms. The divergence may stem from industry differences, enforcement contexts, and Shell's strategic use of soft-law disclosures to preserve legitimacy in a high-risk, extractive sector.

Furthermore, Shell's TCRs attempted to justify declining ETRs by referencing non-deductible expenses, one-off adjustments, and legitimate business structuring. For example, in 2019, Shell explained its increased ETR as driven by disallowed expenses rather than a shift in tax planning. This pattern supports the 'tell-tale heart effect', where transparency serves to explain and defend outcomes rather than to reform practices. It also reinforces legitimacy theory: Shell's extensive narrative disclosures function as a reputational shield amid stakeholder scrutiny. These findings are consistent with Oats and Tuck (2019), who argue that voluntary disclosure under soft-law regimes may have a limited impact on curbing tax aggressiveness. Similarly, Blaufus and co-authors (2025) observe that UK firms often tailor the tone of their tax strategy statements to portray themselves as compliant and responsible, even when their underlying tax behaviours suggest otherwise.

In addition, comparative analysis across Shell's Annual Reports, Sustainability Reports, and TCRs illustrates a clear evolution in purpose and depth. The Annual Reports focus on statutory reconciliation, the Sustainability Reports increasingly frame tax as a corporate responsibility, while the TCR provides the most comprehensive view, integrating strategy, governance, and narrative aligned with GRI 207. Yet, despite Shell's formal adoption of GRI 207 in 2021, the company continued to bypass full compliance with GRI 207-4, preferring the OECD's confidential, aggregated CbCR method. This limits comparability, transparency, and stakeholder oversight.

Overall, GRI 207 introduced important new dimensions to tax transparency, particularly board-level oversight, stakeholder dialogue, and disclosure of operational context. Shell adopted GRI 207-1 to 207-3 with relative ease. It is mainly because many elements of the standard mimic the UK's tax strategy disclosure and the OECD's CbCR. However, it resisted GRI 207-4 due to the commercial and political challenges associated with public, top-down country-by-country reporting. This selective compliance underscores a broader issue with soft-law frameworks: they allow firms to engage with transparency on their own terms.

Shell's reporting behaviour aligns with Hoopes and co-authors' (2024) taxonomy of tax disclosures, where public, voluntary mechanisms like GRI 207 serve reputational objectives but lack enforcement power. In contrast, the OECD's CbCR is confidential and mandatory, intended for tax authorities. Shell's preference for the latter illustrates the limits of voluntary standards in constraining aggressive practices. Moreover, Shell's decision not to seek third-party assurance for its TCR, despite GRI 207-2(c) suggesting it, further undermines the legitimacy of its claims.

6. Limitations and future directions

Despite offering robust insights, this study is subject to several limitations. First, it adopts a single case study approach, focusing solely on Shell plc, a large multinational in the extractive industry. As Shell had already engaged in extensive voluntary tax disclosures before the implementation of GRI 207, the observed changes in its reporting and tax behaviour may not be solely attributable to the standard itself. In this regard, Shell can be seen as an early adopter or leading example, suggesting that the effects identified in this study likely represent the minimum impact GRI 207 could have. Consequently, this limits the ability to draw strong causal inferences or generalise the findings across other firms or contexts. As such, the findings may not be generalisable to other industries or smaller firms operating under different regulatory regimes. Second, the study is context-specific, anchored in the UK's tax disclosure environment, where pre-existing legal obligations such as the UK tax strategy disclosure and OECD's CbCR participation have already shaped corporate practices. Thus, we caution against extending these findings to jurisdictions with less stringent disclosure regimes. Future studies may explore a multi-company case study in this area. Third, while the use of ETR, cash ETR, and adjusted ETR offers useful quantitative proxies for tax aggressiveness, they do not capture the full complexity of tax planning strategies.

Moreover, the analysis is limited to publicly available documents and does not include stakeholder perspectives from tax authorities, shareholders, or civil society. This absence of qualitative insights constrains the understanding of how disclosures are perceived and whether they influence trust. Another limitation lies in the absence of third-party assurance on Shell's TCRs, which may affect the credibility of self-reported data.

Future research could expand on this study by conducting comparative analyses across industries or jurisdictions with varying levels of regulatory stringency. Cross-sectional or panel data approaches could provide a broader empirical foundation to evaluate the impact of GRI 207 on tax behaviour. Incorporating stakeholder interviews or surveys would offer valuable qualitative insights into the perceived effectiveness and credibility of GRI-aligned tax disclosures. Researchers could also explore the interplay between soft-law frameworks like GRI 207 and emerging hard-law instruments such as the EU's Public CbCR or the OECD's Pillar Two. Finally, the development of more nuanced proxies for tax aggressiveness leveraging data from detailed CbCR could enhance the precision of future assessments.

7. Conclusion

This study builds on the body of literature on tax transparency by providing useful insights into the evolution of tax transparency of one company resulting from the changing regulatory landscape in the UK. It is possible that Shell's evolving tax disclosures may reflect a broader trend of moving from minimal statutory compliance to voluntary strategic transparency, which could be explored further in future research. The findings suggest that while Shell substantially increased the volume and narrative depth of its tax disclosures through the TCR, the impact on its tax behaviour remains unclear or limited, particularly in terms of reducing tax aggressiveness. This outcome may reflect the limitations of voluntary disclosure frameworks like GRI 207, which lack enforceable mechanisms to drive substantive behavioural change. Further, Shell's partial compliance with GRI 207-4, selective adoption of OECD, and lack of third-party assurance reflect the limitations of voluntary frameworks. Transparency was often used to justify existing practices, rather than alter them, aligning with legitimacy theory and legal realism. It is suggested that GRI 207 improved visibility into Shell's tax practices but fell short of effecting behavioural change, reinforcing the need for enforceable mechanisms to ensure that transparency translates into accountability.

8. References

Akamah, H, Hope, O-K & Thomas, W B 2018, 'Tax havens and disclosure aggregation', *Journal of International Business Studies*, vol. 49, no. 1, pp. 49-69.

Arnaud, Q & Giordano-Spring, S 2024, 'Tax disclosure strategies and reputational risks: An exploration based on the standard GRI 207', *Journal of Cleaner Production*, vol. 470, no. 1, 143278.

Balakrishnan, K, Blouin, J L & Guay, W R 2019, 'Tax aggressiveness and corporate transparency', *The Accounting Review*, vol. 94, no. 1, pp. 45-69.

Barrera, R & Bustamante, J 2018, 'The rotten apple: Tax avoidance in Ireland', *The International Trade Journal*, vol. 32, no. 1, pp. 150-161.

Belnap, A 2023, 'The effect of intermediary coverage on disclosure: Evidence from a randomized field experiment', *Journal of Accounting and Economics*, vol. 75, no. 1, 101522.

Bilicka, K A 2019, 'Comparing UK tax returns of foreign multinationals to matched domestic firms', *American Economic Review*, vol. 109, no. 8, pp. 2921-2953.

Bilicka, K, Casi, E, Seregni, C & Stage, B M B 2025, 'Tax strategy disclosure: A greenwashing mandate?', *Journal of Accounting Research*, vol. 63, no. 5, pp. 1857-1915.

Bird, A, Edwards, A & Ruchti, T G 2018, 'Taxes and peer effects', *The Accounting Review*, vol. 93, no. 5, pp. 97-117.

Blaufus, K, Jarzembski, J K, Reineke, J & Trenn, I 2025, 'Public disclosure of tax strategies and firm's actual tax policy', *Journal of Accounting, Auditing and Finance*, vol. 40, no. 3, pp. 863-887.

Boubaker, S, Derouiche, I & Nguyen, H 2022, 'Voluntary disclosure, tax avoidance and family firms', *Journal of Management and Governance*, vol. 26, no. 1, pp. 129-158.

Brown, R 2023, 'An empirical study of the Australian Senate Inquiry into corporate tax avoidance', *Australian Tax Forum*, vol. 38, no. 4, pp. 569-610.

Brown, R J, Jorgensen, B N & Sadiq, K 2024, 'Revisiting unitary taxation with formulary apportionment using public country-by-country reports', *British Tax Review*, vol. 2024, no. 3, pp. 407-453.

Chaim, D A & Parchomovsky, G 2024, 'The missing "T" in ESG', *Vanderbilt Law Review*, vol. 77, no. 3, pp. 789-843.

Chen, S 2017, *Do investors value corporate tax return information? Evidence from Australia*, PhD thesis, University of Texas at Austin, United States. Available at: https://repositories.lib.utexas.edu/items/def5dc72-aa98-497d-bfb2-a829236f7eb9.

Christians, A 2007, 'Hard law, soft law, and international taxation', *Wisconsin International Law Journal*, vol. 25, no. 2, pp. 325-333.

Christians, A 2013, 'How Starbucks lost its social license – And paid £20 million to get it back', *Tax Notes International*, vol. 71, no. 7, pp. 637-639.

Davis, A K, Guenther, D A, Krull, L K & Williams, B M 2016, 'Do socially responsible firms pay more taxes?', *The Accounting Review*, vol. 91, no. 1, pp. 47-68.

De la Cuesta-González, M & Pardo, E 2019, 'Corporate tax disclosure on a CSR basis: A new reporting framework in the post-BEPS era', *Accounting, Auditing and Accountability Journal*, vol. 32, no. 7, pp. 2167-2192.

Desai, M A & Dharmapala, D 2006, 'Corporate tax avoidance and high-powered incentives', *Journal of Financial Economics*, vol. 79, no. 1, pp. 145-179.

Dharmapala, D & Hines, J R, Jr 2009, 'Which countries become tax havens?', *Journal of Public Economics*, vol. 93, nos 9-10, pp. 1058-1068.

Djankov, S, Ganser, T, McLiesh, C, Ramalho, R & Shleifer, A 2010, 'The effect of corporate taxes on investment and entrepreneurship', *American Economic Journal: Macroeconomics*, vol. 2, no. 3, pp. 31-64.

Druzin, B H 2017, 'Why does soft law have any power anyway?', *Asian Journal of International Law*, vol. 7, no. 2, pp. 361-378.

Dunker, M and Willkomm, S 2022, 'Tax transparency through mandatory qualitative disclosures – Determinants and effects of UK tax strategy reports'. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4175275.

Dyreng, S D, Hanlon, M & Maydew, E L 2008, 'Long-run corporate tax avoidance', *The Accounting Review*, vol. 83, no. 1, pp. 61-82.

Dyreng, S D, Hoopes, J L, Langetieg, P & Wilde, J H 2020, 'Strategic subsidiary disclosure', *Journal of Accounting Research*, vol. 58, no. 3, pp. 643-692.

Dyreng, S D, Hoopes, J L & Wilde, J H 2016, 'Public pressure and corporate tax behavior', *Journal of Accounting Research*, vol. 54, no. 1, pp. 147-186.

Elbra, A & Mikler, J 2017, 'Paying a "fair share": Multinational corporations' perspectives on taxation', *Global Policy*, vol.8, no. 2, pp. 181-190.

Evers, M T, Finke, K, Matenaer, S, Meier, I & Zinn, B 2014, 'Evidence on book-tax differences and disclosure quality based on the notes to the financial statements', ZEW-Centre for European Economic Research Discussion Paper No. 14-047. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2475909.

Fallan, E 2015, 'Corporate social responsibility and tax aggressiveness: A test of legitimacy theory' (review of Lanis, R & Richardson, G 2012, 'Corporate social responsibility and tax aggressiveness: A test of legitimacy theory', *Accounting, Auditing and Accountability Journal*, vol. 26, no. 1, pp. 75-100), *Social and Environmental Accountability Journal*, vol. 35, no. 3, pp. 198-200.

Flagmeier, V, Müller, J & Sureth-Sloane, C 2023, 'When do firms highlight their effective tax rate?', *Accounting and Business Research*, vol. 53, no. 1, pp. 1-37.

Garcia-Bernardo, J & Janský, P 2024, 'Profit shifting of multinational corporations worldwide', *World Development*, vol. 177, 106527.

Garcia-Bernardo, J, Janský, P & Tørsløv, T 2021, 'Multinational corporations and tax havens: Evidence from country-by-country reporting', *International Tax and Public Finance*, vol. 28, no. 6, pp. 1519-1561.

Global Sustainability Standards Board 2019, *GRI 207: Tax 2019*, Topic Standard, https://www.globalreporting.org/.

Godar, S, Aliprandi, G, Faccio, T, Janský, P & Toledo Ruiz, K 2024, 'The long way to tax transparency: Lessons from the early publishers of country-by-country reports', *International Tax and Public Finance*, vol. 31, no. 2, pp. 593-634.

Göttsche, M, Habermann, F & Sieber, S 2024, 'The materiality of non-financial tax disclosure: Experimental evidence', *Journal of International Accounting, Auditing and Taxation*, vol. 54, 100600.

Halim, M A & Rahman, M M 2022, 'The effect of taxation on sustainable development goals: Evidence from emerging countries', *Heliyon*, vol. 8, no. 9, e10512.

Hanlon, M & Heitzman, S 2010, 'A review of tax research', *Journal of Accounting and Economics*, vol. 50, nos 2-3, pp. 127-178.

Hardeck, I & Kirn, T 2016, 'Taboo or technical issue? An empirical assessment of taxation in sustainability reports', *Journal of Cleaner Production*, vol. 133, pp. 1337-1351.

Hoopes, J L, Robinson, L & Slemrod, J 2024, 'Corporate tax disclosure', *Journal of the American Taxation Association*, vol. 46, no. 2, pp. 31-61.

Hugger, F 2019, 'The impact of country-by-country reporting on corporate tax avoidance', Ifo Working Paper, ifo Working Paper No. 304. Available at: https://hdl.handle.net/10419/199078.

Hussain, N, Rigoni, U & Orij, R P 2018, 'Corporate governance and sustainability performance: Analysis of triple bottom line performance', *Journal of Business Ethics*, vol. 149, no. 2, pp. 411-432.

Hyett, N, Kenny, A & Dickson-Swift, V 2014, 'Methodology or method? A critical review of qualitative case study reports', *International Journal of Qualitative Studies on Health and Well-being*, vol. 9, no. 1, 23606.

Inger, K K, Meckfessel, M D, Zhou, M (J) & Fan, W (P) 2018, 'An examination of the impact of tax avoidance on the readability of tax footnotes', *Journal of the American Taxation Association*, vol. 40, no. 1, pp. 1-29.

Jemiolo, S & Farnsel, C 2023, 'Complements, substitutes or neither? A review of the relation between corporate social responsibility and corporate tax avoidance', *Journal of Accounting Literature*, vol. 45, no. 3, pp. 474-496.

Joshi, P 2020, 'Does private country-by-country reporting deter tax avoidance and income shifting? Evidence from BEPS Action Item 13', *Journal of Accounting Research*, vol. 58, no. 2, pp. 333-381.

Joshi, P, Outslay, E & Persson, A (with discussion by Shevlin, T & Venkat, A) 2020, 'Does public country-by-country reporting deter tax avoidance and income shifting? Evidence from the

European banking industry', *Contemporary Accounting Research*, vol. 37, no. 4, pp. 2357-2397.

Kao, W-C & Liao, C-H 2021, 'Tax avoidance and tax disclosures in corporate social responsibility reports in the United Kingdom', *Journal of International Accounting Research*, vol. 20, no. 3, pp. 59-80.

Kays, A 2022, 'Voluntary disclosure responses to mandated disclosure: Evidence from Australian corporate tax transparency', *The Accounting Review*, vol. 97, no. 4, pp. 317-344.

Klaassen, P & Bobeldijk, A 2019, 'Country-by-country reporting and the effective tax rate: How effective is the effective tax rate in detecting tax avoidance in country-by-country reports?', *Intertax*, vol. 47, no. 12, pp. 1057-1069.

Kobbi-Fakhfakh, S & Driss, F 2024, 'The effect of mandatory extraction payment disclosures on corporate tax avoidance: Evidence from the United Kingdom', *Accounting in Europe*, vol. 21, no. 1, pp. 44-67.

Kopetzki, L C, Spengel, C & Weck, S 2023, 'Moving forward with tax sustainability reporting in the EU – A quantitative descriptive analysis', *World Tax Journal*, vol. 15, no. 2, pp. 291-320.

Krever, R, Sadiq, K & McCredie, B 2022, 'Identifying tax aggressive behaviour: Testing the proxies', *Australian Tax Forum,* vol. 37, no. 1, pp. 27-63.

Kurniasih, L, Yusri, Y, Kamarudin, F & Sheikh Hassan, A F 2023, 'The role of country by country reporting on corporate tax avoidance: Does it effective for the tax haven?', *Cogent Business and Management*, vol. 10, no. 1, 2159747.

Kvaal, E & Nobes, C 2013, 'International variations in tax disclosures', *Accounting in Europe*, vol. 10, no. 2, pp. 241-273.

Laguir, I, Staglianò, R & Elbaz, J 2015, 'Does corporate social responsibility affect corporate tax aggressiveness?', *Journal of Cleaner Production*, vol. 107, pp. 662-675.

Lanis, R & Richardson, G 2012, 'Corporate social responsibility and tax aggressiveness: An empirical analysis', *Journal of Accounting and Public Policy*, vol. 31, no. 1, pp. 86-108.

Lee, B B, Dobiyanski, A & Minton, S 2015, 'Theories and empirical proxies for corporate tax avoidance', *Journal of Applied Business and Economics*, vol. 17, no. 3, pp. 21-34.

Lemaître, S 2019, 'Illicit financial flows within the extractive industries sector: A glance at how legal requirements can be manipulated and diverted', *Crime, Law and Social Change*, vol. 71, no. 1, pp. 107-128.

Mgammal, M H 2020, 'Corporate tax planning and corporate tax disclosure', *Meditari Accountancy Research*, vol. 28, no. 2, pp. 327-364.

Mgammal, M H, Bardai, B & Ku Ismail, K N I 2018, 'Corporate governance and tax disclosure phenomenon in the Malaysian listed companies', *Corporate Governance*, vol. 18, no. 5, pp. 779-808.

Middleton, A & Muttonen, J 2020, *Multinational enterprises and transparent tax reporting*, Routledge, London.

Muller, A & Kolk, A 2015, 'Responsible tax as corporate social responsibility: The case of multinational enterprises and effective tax in India', *Business and Society*, vol. 54, no. 4, pp. 435-463.

O'Donovan, J, Wagner, H F & Zeume, S 2019, 'The value of offshore secrets: Evidence from the Panama Papers', *Review of Financial Studies*, vol. 32, no. 11, pp. 4117-4155.

Oats, L & Tuck, P 2019, 'Corporate tax avoidance: is tax transparency the solution?', *Accounting and Business Research*, vol. 49, no. 5, pp. 565-583.

Organisation for Economic Co-operation and Development (OECD) 2012, *Model Tax Convention on Income and on Capital (updated 2010)*, OECD Publishing, Paris, https://www.oecd.org/content/dam/oecd/en/publications/reports/2012/08/model-tax-convention-on-income-and-on-capital-2010-full-version_g1g1c5f3/9789264175181-en.pdf (accessed 13 February 2025).

Organisation for Economic Co-operation and Development (OECD) 2015, *Transfer pricing documentation and country-by-country reporting, Action 13 – 2015 final report*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264241480-en (accessed 13 February 2025).

Otusanya, O J 2011, 'The role of multinational companies in tax evasion and tax avoidance: The case of Nigeria', *Critical Perspectives on Accounting*, vol. 22, no. 3, pp. 316-332.

Overesch, M & Wolff, H 2021, 'Financial transparency to the rescue: Effects of public country-by-country reporting in the European Union banking sector on tax avoidance', *Contemporary Accounting Research*, vol. 38, no. 3, pp. 1616-1642.

Plekhanova, V 2023, 'On benefits of new legal realism for international tax scholarship', *Transnational Legal Theory*, vol. 14, no. 3, pp. 307-338.

Ricardo, D 1895, *The first six chapters of the principles of political economy and taxation of David Ricardo, 1817*, Macmillan, New York.

Royal Dutch Shell plc 2011, *Sustainability report 2010*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_1645439879_copy__490321832/text_copy_copy_copy__1589128498/links/item0.stream/1657185541738/1051284bed71f7eb4af6976a1d67d0c40461e530/shell-sustainability-report-2010.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2012, *Payments to governments report 2011*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_1645439879_copy__1199560430/text_copy_copy_copy_/links/item0.stream/1657091755136/456f57f0c27869d7b3a80234707595c0ea938b03/shell-cfo-message-revenue-transparency25042012.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2017, *Sustainability report 2016*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_1645439879/text_copy_copy_copy__1589128498/links/item0.stream/1742906433760/37ee3bc4799b4bf9efa3127795b6b72818779c40/shell-sustainability-report-2016.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2018, *Sustainability report 2017*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_978158744/text_copy_copy_cop y_/links/item0.stream/1742906438442/7494c7e7e754d375d80bd30b1771903121fc1358/shell-sustainability-report-2017.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2019a, *Annual report 2018*, https://www.shell.com/investors/results-and-reporting/annual-report-archive/_jcr_content/root/main/section_812377294/tabs/tab_61705099_copy_579650462/text.multi.stream/1742905607084/dac9fae46b135df3789722f19e0b9cc5b6d282a4/shell-annual-report-2018.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2019b, *Tax contribution report 2018*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_405218944/text_copy_copy_copy__1178607592/links/item0.stream/1732112311760/1a4cc2ac255496f579da6b158cf0403cdc58b67c/shell-tax-contribution-report-2018.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2020a, *Annual report 2019*, https://www.shell.com/investors/results-and-reporting/annual-report-archive/_jcr_content/root/main/section_812377294/tabs/tab_61705099_copy/text.multi.stream/1742905535559/8c8164754553b82936622a42fd542a06a7a717f8/shell-annual-report-2019.pdf (accessed 1 December 2025).

Royal Dutch Shell plc 2020b, *Tax contribution report 2019*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_66628456/text_copy_copy_copy_/links/item0.stream/1732112314967/a2c5200f603c3d8c9efb7b87eaf8ef3d290450db/shell-tax-contribution-report-2020.pdf (accessed 1 December 2025).

Rudyanto, A 2025, 'Does tax disclosure in Global Reporting Initiative (GRI)-based sustainability reporting mitigate aggressive tax avoidance? Evidence from a developing country', *Journal of Global Responsibility*, vol. 16, no. 1, pp. 37-51.

Schoueri, P G L & Owens, J 2020, 'In pursuit of fair tax competition: The linkage between PTA, WTO subsidies and EU state aid rules', *Intertax*, vol. 48, nos 6/7, pp. 582-601.

Schwab, C M, Stomberg, B & Williams, B M 2022, 'Effective tax planning', *The Accounting Review*, vol. 97, no. 1, pp. 413-437.

Seer, R & Wilms, A L 2016, 'Tax transparency in the European Union regarding Country by Country Reporting (BEPS Action 13)', *EC Tax Review*, vol. 25, nos 5/6, pp. 325-334.

Sheehy, B, Tuslian, W & Lie, L 2021, 'The use of international soft law for corporate social responsibility reporting in the retail industry: A study of four major retailers in the Asia-Pacific', *Canberra Law Review*, vol. 18, no. 1, pp. 60-80.

Shell plc 2021a, *Annual report 2020*, https://www.shell.com/investors/results-and-reporting/annual-report-archive/_jcr_content/root/main/section_812377294/tabs/tab_61705099/text.multi.stream/1742905483000/46170ccf92a7a52ea02ed46c8a94770928c69208/shell-annual-report-2020.pdf (accessed 1 December 2025).

Shell plc 2021b, *Tax contribution report 2020*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_66628456/text_copy_copy_copy

_/links/item0.stream/1732112314967/a2c5200f603c3d8c9efb7b87eaf8ef3d290450db/shell-tax-contribution-report-2020.pdf(accessed 1 December 2025).

Shell plc 2022a, *Annual report 2021*, https://www.shell.com/investors/results-and-reporting/annual-report-archive/_jcr_content/root/main/section_812377294/tabs/tab_338953895/text.multi.stream/1742905417223/ddb70e54fdb262fa1e81db12f2d92233672f779d/shell-annual-report-2021.pdf (accessed 1 December 2025).

Shell plc 2022b, *Tax contribution report 2021*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_598795121/text_copy_copy_copy__302865388/links/item0.stream/1732112316064/16c6f8b1bd336dca7b86660a6d335b5dd61a58c7/shell-tax-contribution-report-2021.pdf(accessed 1 December 2025).

Shell plc 2023a, *Annual report 2022*, https://www.shell.com/investors/results-and-reporting/annual-report-archive/_jcr_content/root/main/section_812377294/tabs/tab_1219767661/text.multi.stream/1742905354181/24ff673614687df7a13f18ce0cbd126cd73bc788/shell-annual-report-2022.pdf (accessed 1 December 2025).

Shell plc 2023b, *Tax contribution report 2022*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab_274730988/text_copy_copy_copy/links/item0.stream/1732112313093/26b9325e8c95119442f547ce6ee535e489c5b5d7/shell-tax-contribution-report-2022.pdf (accessed 1 December 2025).

Shell plc 2024, *Tax contribution report 2023*, https://www.shell.com/sustainability/reporting-centre/reporting-centre-archive/_jcr_content/root/main/section_2106585602/tabs/tab/text_1613975030/links/item0.stream/1732121616742/2177eb072aaca941de70e13f6e4b0b2d5b8fc13d/tax-contribution-report-2023.pdf (accessed 1 December 2025).

Stake, R E 1995, *The art of case study research*, Sage, Thousand Oaks, CA.

Steurer, R 2010, 'The role of governments in corporate social responsibility: Characterising public policies on CSR in Europe', *Policy Sciences*, vol. 43, no. 1, pp. 49-72.

United Nations Development Programme (UNDP) 2023, *Tax for Sustainable Development Goals Initiative, annual report 2022*, UNDP, New York, https://em-dev.s3.eu-west-1.amazonaws.com/undp/assets/00v-zz5R/online-version-undp-tax-for-sdgs-annual-report-2.pdf (accessed 13 February 2025).

Wichianrak, J, Wong, K, Khan, T, Siriwardhane, P & Dellaportas, S 2022, 'Soft law, institutional signalling – Thai corporate environmental disclosures', *Social Responsibility Journal*, vol. 18, no. 2, pp. 205-220.

Wójcik, D 2015, 'Accounting for globalization: Evaluating the potential effectiveness of country-by-country reporting', *Environment and Planning C: Government and Policy*, vol. 33, no. 5, pp. 1173-1189.

Xia, J 2025, 'Qualitative disclosure as a tax enforcement mechanism: Evidence from the UK tax strategy disclosure requirement', *Journal of the American Taxation Association*, forthcoming.

Xu, S, Wang, F, Cullinan, C P & Dong, N 2022, 'Corporate tax avoidance and corporate social responsibility disclosure readability: Evidence from China', *Australian Accounting Review*, vol. 32, no. 2, pp. 267-289.

Yang, L 2023, 'Country-by-country reporting and corporate tax avoidance: Evidence from China', *Economic Research-Ekonomska Istraživanja*, vol. 36, no. 2, 2106283.

Yin, R K 2009, *Case study research: Design and methods*, 4th edn, Sage, Thousand Oaks, CA.

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The potential role of carbon taxes in encouraging a shift to renewable power sources in Qatar

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Abstract

Qatar is a resource-endowed country where the oil, gas, power, and transport sectors produce high levels of CO_2 emissions. To diversify its economy and reduce CO_2 emissions from these sectors to improve environmental sustainability, restructuring the current tax system is inevitable. Therefore, tax reform is needed, and it may also contribute to environmental policy through introducing carbon taxes. To be in harmony with other developed countries, the aim of this article is to present the role of carbon taxes towards environmental development and to assess the possible introduction of carbon taxes in Qatar. In doing so, an analysis of the strengths, weaknesses, opportunities, and threats (SWOT) was applied. The results of the analysis should serve as a basis for providing specific policy recommendations with regard to using carbon taxes to overcome environmental issues and to diversify government revenue.

Keywords: carbon taxes, tax policy, SWOT analysis, Qatar

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1. INTRODUCTION

Oil and gas production techniques and consumption patterns have a significant impact on the environment. To address these environmental problems, behavioural changes are required, which involve substantial economic costs affecting the labour market, production activities, and capital markets. This calls for the development of specific policies and programs to deal with environmental issues. In this context, governments worldwide have developed environmental policies as a means of achieving environmental and sustainable development goals. Furthermore, policymakers are utilising incentive-based tools to ensure that environmental solutions are found at a lower cost, to correct negative externalities associated with environmental degradation, and to raise revenues for specific purposes (Tan et al., 2022). This draws attention to the importance of introducing specific economic instruments to control air pollution and to manage natural resources effectively.

Developed countries have long prioritised environmental policies, particularly in the European Union (EU) and Organisation for Economic Co-operation and Development (OECD) nations. These countries employ a variety of regulations and related measures to tackle the impact of environmental challenges. For example, the EU has set itself the ambitious goal of reducing greenhouse gas emissions by 55% by 2030 and achieving climate neutrality by 2050. These goals, along with the accompanying fiscal and regulatory instruments, are outlined in the European Green Deal strategy. Achieving them requires stringent regulations as well as institutional and environmental reforms (Fatur Šikić & Hodžić, 2023).

The range of policy instruments available to address such challenges includes carbon taxes, fees, tradable permits, deposit-refund systems, and subsidies. These tools are designed to tackle the negative externalities arising from greenhouse gas (GHG) emissions – mainly carbon dioxide (CO_2) and methane (CH_4) (Faure & Weishaar, 2012). Among these instruments, carbon pricing mechanisms have emerged as particularly effective tools.

Although carbon taxes and carbon trading systems are often presented as distinct policy tools, they share the same ultimate objective – placing an explicit price on carbon emissions to internalise the social cost of pollution (Pigou, 1920; High-Level Commission on Carbon Prices, 2017). A carbon tax fixes the price per tonne of CO_2 emitted, providing certainty over costs, while a carbon trading (cap-and-trade) scheme fixes the total emission level and allows firms to trade permits (Tietenberg, 2006; Metcalf & Weisbach, 2009). In practice, many countries integrate features of both systems to achieve flexibility and efficiency in emission reductions (World Bank, 2023; OECD, 2022). Therefore, throughout this article, the term *carbon tax* refers broadly to carbon pricing mechanisms aimed at mitigating greenhouse gas emissions within the Qatari context.

Based on this framework, carbon taxes are gaining increasing importance as a key policy instrument contributing to several Sustainable Development Goals (SDGs). For instance, they support SDG 7 ('Affordable and Clean Energy') and SDG 13 ('Climate Action') by incentivising cleaner energy use and reducing emissions. Furthermore, taxes play a central role in revenue mobilisation, enabling governments to secure funds for SDG-related initiatives and long-term sustainable development.

Motivated by these international experiences, many developing countries have begun recognising the vital role of environmental policies in achieving sustainable development. Recently, the State of Qatar has also demonstrated growing awareness of environmental challenges and the need for an integrated environmental strategy. In response, the government launched the National Environmental and Climate Change Strategy in October 2021. The strategy acknowledges that rapid economic growth in Qatar has led to higher consumption of water, electricity, and other resources, resulting in greater waste generation and rising greenhouse gas emissions. It identifies clear objectives and measurable indicators to guide the nation's transition toward sustainable development (Ministry of Environment and Climate Change (MECC), Qatar, 2021).

However, despite these commendable efforts, Qatar's environmental policy does not explicitly consider the potential role of fiscal instruments, particularly carbon taxes. This omission raises a central research question: *What would be the possible effects of employing carbon taxes to achieve Qatar's environmental policy objectives?* To address this question, the study applies a SWOT analysis to evaluate the opportunities and challenges of introducing such taxes in Qatar. In doing so, the article pursues three key aims: (1) to review international practices of carbon taxation and their environmental impact; (2) to assess the potential implications of introducing carbon taxes in Qatar, and (3) to propose specific policy recommendations for their effective implementation.

It is therefore essential to distinguish between broad environmental taxation and a targeted carbon tax. Environmental taxes encompass a range of levies on pollutants such as plastic waste, water discharges, or solid waste management (OECD, 2010; Fullerton, 2011). By contrast, a carbon tax is specifically designed to address emissions of greenhouse gases, particularly CO_2 (Metcalf & Weisbach, 2009; High-Level Commission on Carbon Prices, 2017). This study focuses solely on assessing the economic and environmental implications of introducing a carbon tax in Qatar. Thus, it does not address other non-carbon environmental levies, ensuring conceptual consistency and alignment with the article's main objective (World Bank, 2023).

The remainder of the article is structured as follows: section 2 examines the significance of carbon taxes for sustainable development, while section 3 discusses the importance of carbon taxes in Qatar. Section 4 applies a SWOT analysis to assess their relevance for Qatar, and section 5 presents the conclusions and policy implications.

2. THE SIGNIFICANCE OF CARBON TAXES TOWARD ENVIRONMENTAL DEVELOPMENT

Countries worldwide are prioritising sustainable development through policies addressing socioeconomic and environmental challenges. Carbon taxes have emerged as a key tool for tackling environmental issues in both developed and developing nations (Chu, 2024). The global focus on environmental development aligns with the United Nations' 17 Sustainable Development Goals (SDGs), particularly SDG 13, which emphasises climate action to combat issues like greenhouse gas (GHG) emissions, rising temperatures, droughts, and sea-level rise (United Nations, 2021).

GHG emissions, primarily from fossil fuels such as oil and gas, contribute significantly to climate change through carbon dioxide (CO_2), methane, and other gases. To address this, countries implement measures like carbon taxes or carbon trading systems, as seen in the European Union's emissions trading scheme (Parry, Norregaard & Heine, 2012). Carbon taxes, often called Pigouvian taxes, target negative externalities by imposing a tax equal to the marginal damage costs, internalising the social cost of pollution. This corrects market failures by raising production and consumption costs, thereby reducing pollution and improving economic efficiency (Eskeland & Jimenez, 1992; Sandmo, 2008; Hsu, 2021).

Carbon taxes also embody the polluter pays principle (PPP), which holds that polluters should bear the costs of environmental and health damages (European Commission and Fogleman, 2024). By increasing costs for polluters, the PPP incentivises cleaner production techniques to reduce emissions and associated charges (Luppi, Parisi & Rajagopalan, 2012). This aligns with two of the UN's four environmental policy principles: the polluter pays principle and the principle of prevention, alongside the precautionary principle and common but differentiated responsibilities (United Nations, 2021, pp. 26-27).

Economically, carbon taxes correct market failures caused by negative externalities from CO_2 emissions. Legally, the PPP assigns responsibility to polluters, requiring them to bear the costs through taxes or levies. These principles justify the use of carbon taxes to address environmental challenges. Often termed 'green taxes', these aim to protect the environment and reduce GHG emissions by influencing producer and consumer behaviour through higher costs, leading to socially efficient production and consumption levels (Mpofu, 2022).

The OECD distinguishes between carbon taxes and environmentally related taxes based on their tax base. Carbon taxes target physical units with proven negative environmental impacts, such as carbon emissions, while environmentally related taxes encompass broader compulsory payments to governments on environmentally relevant tax bases (OECD, 2008, p. 180). The OECD classifies environmentally related taxes into energy, transport, pollution, and resource taxes (OECD, 2023, p. 15). Herrera Molina (2012) further differentiates carbon taxes into those primarily raising revenue with environmental benefits and Pigouvian taxes focused on mitigating externalities (Herrera Molina, 2012).

Carbon taxes serve dual purposes: protecting the environment and generating government revenue. This dual role highlights their potential in oil-exporting countries like Qatar, where implementing such taxes could address environmental challenges while supporting fiscal objectives. The following section explores the justification for introducing carbon taxes in Qatar.

3. THE IMPORTANCE OF CARBON TAXES IN QATAR

This section justifies the proposal for a carbon tax in Qatar by outlining two primary reasons: (1) mitigating the impact of greenhouse gas (GHG) emissions through a carbon tax, and (2) diversifying government revenue through the implementation of a carbon tax.

3.1 Environmental policy and carbon tax

The first effect of carbon taxes is their role in mitigating the negative externalities associated with oil and gas production. In this context, the European Commission (2024) report on GHG emissions identifies the level of GHG emissions worldwide and provides more details for each country. Based on this data, the GHG per capita emission in Qatar is high compared with the EU average and the worldwide average. Furthermore, GHG emissions in Qatar were the highest among GCC countries and other leading nations. This is shown in Table 1.

Table 1: GHG Country per Capita in the Period 2016-2023 (t CO2eq/cap/yr)

Country	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
United Arab Emirates	28.264	27.033	25.002	25.985	25.407	25.859	26.601	26.291
Australia	25.029	25.089	24.678	24.281	23.016	22.596	21.888	21.754
Austria	9.495	9.749	9.393	9.520	8.799	9.172	8.549	8.248
Bahrain	41.569	39.582	37.740	38.476	37.216	36.346	35.096	35.251
Kuwait	36.397	35.109	35.445	35.361	34.636	36.184	37.400	37.448
Libya	10.857	12.891	13.695	13.984	9.664	13.357	13.044	13.913
Oman	25.466	24.370	24.111	23.509	21.984	22.743	23.349	23.427
Qatar	54.450	52.843	52.069	51.937	50.200	50.398	50.005	52.565
Saudi Arabia	23.463	22.847	21.951	21.631	21.120	21.302	21.984	22.174
United States	19.263	18.960	19.394	18.878	17.112	17.969	17.987	17.608
EU27	8.791	8.836	8.645	8.295	7.638	8.062	7.849	7.264
GLOBAL TOTAL	6.572	6.608	6.687	6.649	6.330	6.548	6.534	6.594

Source: EU Emissions Database for Global Atmospheric Research (EDGAR), 2024-GHG emissions

In light of the preceding analysis of Qatar’s emissions profile and the need for effective carbon pricing, the country’s Third National Development Strategy (2024–2030) sets forth a comprehensive framework to advance environmental sustainability and economic diversification (Planning and Statistics Authority, Qatar, 2024). Central to this strategy is a commitment to reduce greenhouse gas (GHG) emissions by 25% relative to the business-as-usual scenario by 2030. Achieving this target requires coordinated action across high-impact sectors, including oil and gas, transportation, and electricity generation, through measures such as the adoption of advanced technologies, enhancements in energy efficiency, and strengthened regulatory enforcement (Planning and Statistics Authority, 2024, pp. 27-28). Complementing these objectives, the National Climate Change Action Plan identifies four strategic interventions to address climate change: (1) community awareness and communication; (2) environmental education and human capital development; (3) technology, research, and development, and (4) incentives and regulations (Ministry of Environment and Climate Change, 2021).

Among these interventions, the incentives and regulations component is particularly salient for its potential to drive systemic change through economic and policy levers, and it encompasses two primary dimensions. The first dimension highlights the role of government subsidies and funding mechanisms to incentivise private sector engagement in addressing climate challenges. In contrast, the second dimension centres on regulatory instruments, such as carbon trading systems and carbon taxes, to curb emissions and internalise environmental externalities. Notably, the existing framework lacks a comprehensive examination of carbon taxes and their efficacy in mitigating climate impacts, underscoring the critical contribution of this study in evaluating the feasibility and implications of implementing such taxes to reduce GHG emissions and advance climate resilience.

3.2 Carbon tax and revenue diversification

Qatar's economy is heavily dependent on hydrocarbon resources, which constitute the country's principal exports and the main source of public revenue. This dependence has two major implications: first, it creates fiscal vulnerability to fluctuations in global energy markets; and second, it limits the development of a broad-based tax system, as non-hydrocarbon taxes contribute only marginally to total revenue.

Table 2: The Ratio of Tax Revenue to Total Government Revenue (2020-2025) (QAR billion)

	2020	**2021**	**2022**	**2023**	**2024***	**2025***
Total revenue	171.2	193.7	299.5	269.3	276.6	271.8
Oil	24	43.4	57.6	42.4	41.1	39.2
LNG	39.9	56.3	118.2	95.7	113.1	108
Investment Authority	64.2	55.4	74.3	81.8	73.8	74.5
Corporate income tax	27.5	21.4	26.9	29.4	28.1	28.9
other revenue	15.6	17.2	22.5	20	20.5	21
Tax/ total revenue	16.1%	11.0%	9.0%	10.9%	10.2%	10.6%
Average ratio	11.30%					

Source: International Monetary Fund (IMF) (2025); * estimated.

Table 2 indicates that the tax-to-revenue ratio averaged 11.3% during 2020-2025, reflecting the narrow fiscal base. Empirical studies have emphasised the need to diversify government revenue through comprehensive tax reforms (Abdellatif, Eid & Tran-Nam, 2017). In response to similar fiscal challenges, four Gulf Cooperation Council (GCC) countries have introduced value added tax (VAT) as a diversification tool, while Qatar and Kuwait have yet to adopt such measures due to economic and administrative considerations.

Given these structural characteristics, a carbon tax could serve as a viable instrument for achieving a 'double dividend' by simultaneously broadening the fiscal base and reducing greenhouse gas emissions (Goulder, 1995). Accordingly, assessing the potential introduction of a carbon tax in Qatar is both economically and environmentally justified.

4. THE SWOT ANALYSIS OF CARBON TAXES

4.1 An overview of SWOT analysis

Carbon taxation represents a key component within the broader suite of environmental policy instruments designed to internalise negative externalities and promote sustainable development. By assigning a monetary cost to carbon emissions, such taxes seek to incentivise behavioural change, reduce pollution and resource depletion, and encourage the adoption of cleaner and more energy-efficient technologies (Van den Eijnde, 2022). Despite these advantages, the implementation of carbon taxes often faces technical and political challenges. From a technical standpoint, determining an efficient and equitable tax rate is complex due to measurement difficulties and uncertainty regarding the social cost of carbon. Politically, resistance may arise from public opposition and lobbying by interest groups that perceive carbon pricing as economically burdensome (Stoianoff & Walpole, 2016).

Empirical evidence from different national contexts underscores both the opportunities and constraints associated with carbon taxation. Tatariyanto (2023), employing a SWOT analysis of Indonesia's environmental policy framework, found that introducing a carbon tax could increase the cost of carbon-intensive activities, thereby discouraging forest fires and reducing CO_2 emissions. Similarly, Arbolino and Romano (2014) highlighted the fiscal dimension of carbon taxation through revenue recycling mechanisms, whereby revenues are redirected to lower distortionary taxes on labour and capital. In a comprehensive assessment, Andersen, Speck and Mautone (2011) identified five potential 'dividends' of carbon taxation: increased public revenue, enhanced productivity and innovation, employment creation, positive environmental outcomes, and a more equitable distribution of the tax burden.

Drawing upon this body of evidence, the present study applies a SWOT analytical framework to evaluate the feasibility of introducing a carbon tax in the State of Qatar as a mechanism to advance environmental sustainability and economic diversification. SWOT analysis is a widely used strategic assessment tool for identifying the strengths, weaknesses, opportunities, and threats associated with a particular policy or initiative (Hodžić, 2019). Table 3 presents the results of the SWOT analysis of carbon taxation in general, providing a conceptual foundation for assessing its potential application within Qatar's policy context.

Table 3: SWOT Analysis of Carbon Taxes

Strengths	**Weaknesses**
- reduces carbon emissions and mitigates climate change - adoption of encouraging clean energy - carbon tax revenues will enable the reduction of taxes on capital and labour - double dividend (reduce pollution and replace other taxes that slow economic growth), which will increase economic growth rates. - reduction of social and economic inequalities - improving public health as a result of mitigating carbon emissions. - contributing to fiscal sustainability by raising revenue, and may have distributional implications	- regressive nature, as the carbon tax can disproportionately impact lower-income groups - uncertainty around emissions impact (problems with model forecast studies) - tax collection costs may undermine competitiveness - effectiveness in comparison to other policies (direct spending on mass electric vehicle adoption, renewable energy investments, infrastructure upgrades, etc.) - revenues are significantly lower in comparison to other tax revenues (income tax, value added tax, etc.)
Opportunities	**Threats**
- fund green initiatives (clean technology in research and development (R&D), green public transport, sustainable infrastructure projects, resilience funds for vulnerable groups, etc.) - expanding government revenues by implementing a carbon pricing mechanism - drive environmental innovation and workplaces - stimulate investments in more ecological technologies and sustainable systems of production - raising environmental awareness	- political obstacles because of the lack of political will to implement carbon taxes, and sometimes the conflict between the federal and state governments - change in human behaviour - complex policy design (choosing appropriate, adjustable tax levels, etc.) - lack of both proper environmental data and the expertise required to analyse it across revenue authorities - it takes time for businesses and consumers to accept the tax - additional burden on the consumer and the economy, which may cause tax evasion (for example, companies are trying to mask the actual pollution level) - can reduce profitability by not encouraging investments

Building on the general SWOT framework of carbon taxation, this section analyses each component in detail, emphasising its relevance to Qatar's prospective carbon tax implementation.

4.2 Strengths of implementing carbon taxes

The Table above highlights several advantages of introducing carbon taxes. They are grouped into two main points: (1) strengthening environmental regulations in Qatar, and (2) restructuring the tax system.

1. *Strengthening environmental regulations*

Table 1 indicates that CO_2 emission per capita in Qatar was the highest among the countries in the region. This indicates that there is inadequate environmental regulation that influences the production or consumption of products that result in high levels of CO_2. Hence, the introduction of carbon taxes will increase the production costs of polluting industries, which discourages polluting production activities and increases the level of innovation to minimise the level of air pollution. In this context, a number of studies have been carried out indicating the positive effect of carbon taxes on the environment. For example, Miceikiene and co-authors (2018) found that a carbon tax has a strong impact on countries with lower economic growth and lower tax rates and a similar strong impact on developed countries, as imposing a carbon tax has led to a reduction in the level of CO_2 emissions and generated revenue to the government. Moreover, a similar result was obtained by a study carried out by Wang (2024). Accordingly, it is expected that the introduction of carbon taxes in Qatar will reduce the level of pollution and increase the level of environment-related innovations. This expectation aligns with the results of a review of carbon tax on 30 countries that was carried out by Metcalf (2021). It indicates that carbon taxes combined with other environmental measures have reduced the level of CO_2 emissions.

2. *Restructuring the tax system*

The tax system in Qatar is not comprehensive as there is only income tax (imposed by Law 24 of 2018) and excise tax. Further, Qatar aims to diversify government revenue through increasing the share of tax revenue, which requires introducing new taxes (Abdellatif and Tran-Nam, 2023). However, Qatar has not introduced VAT to date, despite four countries of the GCC introducing it. Therefore, there is an opportunity to restructure the tax system through introducing a carbon tax as an alternative to other taxes which face difficulty in being introduced.

4.3 Weaknesses of implementing carbon taxes

There are a number of weaknesses related to introducing carbon taxes, as shown in Table 3. Among these weaknesses are:

1. the regressive nature of carbon taxes and their impact on income inequality. Some studies argue that the burden of carbon taxes is borne by the lower-income group, especially carbon taxes on electricity and home heating systems (Oueslati et al., 2018). Further, in Qatar, the majority of people use private cars, while a small portion of the population with lower income (usually so-called 'blue collar' workers) tend to use public transportation, so introducing carbon-related taxes may have a negative impact on income inequality (Shaaban, 2018);

2. uncertainty around emissions impact. Despite many studies proving the effectiveness of carbon taxes in minimising or reducing CO_2 emissions, conversely, there are a number of studies that are sceptical about assessing the

exact impact of carbon taxes on CO_2 emissions. However, the design of the carbon tax may take into account such a weakness to ensure designing an effective tax base (Mintz-Woo, 2021). In addition, there are a number of recommendations by the OECD and the UN regarding imposing carbon taxes. Accordingly, Qatar may be guided by such recommendations to design effective carbon taxes (Seung-Joon, 2007).

4.4 Opportunities for implementing carbon taxes

In terms of opportunities, we can conclude that the best option for the State of Qatar is to increase government revenues by introducing a carbon pricing mechanism and raising environmental awareness.

1. *Carbon pricing mechanism*

This mechanism works by charging fees for issuance and/or incentivising less issuance. In this situation, the focus is on taxing the large suppliers and distributors of fossil fuels in the supply chain. This imposes a monetary price that is directly proportional to the level of emissions. It also incentivises households and businesses to look for alternatives with lower emissions in order to avoid paying higher taxes (Baranzini, Goldemberg & Speck, 2000). Emissions trading schemes (ETS) and carbon taxes are two main types of carbon pricing mechanisms. While distinct in operation – carbon taxes set a fixed price on emissions, whereas an ETS sets a cap on emissions and allows trading of permits – they can achieve similar outcomes in reducing GHG emissions and can sometimes be integrated or used complementarily. For instance, a hybrid system might combine a carbon tax with an ETS to provide price stability while maintaining emission caps. There are many benefits to introducing these mechanisms, such as reducing carbon emissions, mitigating climate change, promoting clean energy and technology, and decarbonising. For example, the European Union has introduced the ETS, which is the largest transnational carbon pricing scheme. It covers sectors such as electricity, industry, and aviation. It works on a monthly basis through the purchase of emission allowances at auctions (Bruvoll & Larsen, 2017). More than 40 countries and 20 cities worldwide have now introduced some form of carbon pricing mechanism. In the case of Qatar, this will depend to a large extent on national and economic circumstances as well as political will (OECD, 2024).

2. *Environmental awareness*

This element is crucial at the societal level to raise awareness not only at the national level but also at the local level and among vulnerable groups. It is important to show how local citizens can protect and conserve their natural resources. This involves recognising the importance of environmental protection for future generations and acting to reduce harmful impacts (Marsuni, 2021). Therefore, the State of Qatar should raise environmental awareness by promoting sustainable lifestyle workshops at all levels, using social media for environmental campaigns, organising educational seminars and workshops, and conducting clean-up campaigns.

4.5 Threats of implementing carbon taxes

If we focus only on the threats, in the case of Qatar, we will focus on the complexity in the implementation of the carbon border adjustment mechanism (CBAM) and the lack of sufficient knowledge of fiscal instruments and environmental data.

1. Complexity in the implementation of the carbon border adjustment mechanism

The European Union ratified CBAM in October 2023, which is going to be implemented in a number of stages. The CBAM obliges importers to pay the cost of emissions corresponding to the carbon footprint of imported products based on the ETS price. This reduces imports with higher carbon intensity, but does not create a level playing field for exports of less carbon-intensive products. The bulk of Qatar's exports comprises hydrocarbon products (e.g., oil and gas), and currently, oil and gas are excluded from CBAM. Nevertheless, by 2030, there will be a possibility to expand the scope of goods that are subject to CBAM, which may include oil and gas products (Roginko & Fazelianov, 2024). Therefore, it needs to be improved by refunding carbon prices for exports (free allowances for exports only) and/or by subsidising investments to reduce pollution. In this case, this will help to maintain the competitiveness of the domestic industry with domestic carbon pricing, reduce the risk of carbon leakage, and strengthen incentives for carbon pricing and mitigation action in other countries at the international level. However, apart from the numerous benefits, this can also imply a certain administrative burden (Zhong & Pei, 2024).

2. Lack of sufficient knowledge of fiscal instruments and environmental data

The purpose of taxes is not only to raise revenue, but also to influence the behaviour of individuals and companies. This behaviour in turn often has an impact on the environment by developing more environmentally friendly products and services (Metcalf, 2021, p. 260). For example, if a car registration tax is levied on the basis of CO_2 emissions, this will lead to higher prices. The result will be a shift towards hybrid or electric vehicles with lower CO_2 emissions. Another example is the aviation industry. In their study, Krenek and Schratzenstaller (2016) found that the current carbon price is too low to have a significant impact on travel behaviour and the emissions produced. Based on their findings, it is suggested that a significantly higher carbon price would be required to reduce the total number of passengers and thus the overall externalities of air travel. From this article, we can conclude that knowledge of fiscal instruments and the availability of environmental data should be significantly improved in order to analyse the impact of carbon taxes on the economy and society.

Based on the above strengths, weaknesses, opportunities, and threats, it can be concluded that the introduction of carbon taxes in Qatar is a complex matter. Many threats may arise during implementation, such as inadequate skills, insufficient knowledge of the behaviour and economic impact of tax instruments when setting charges, additional burdens on consumers (higher product prices) and the economy, lack of data, and lack of environmental awareness.

Therefore, careful design and implementation of carbon taxes in Qatar should consider many other aspects – administrative, political, and social – in addition to the economic aspect. Further analysis and a better understanding of these aspects could be extremely helpful for future policymakers.

4.6 Integrated upstream–downstream components of carbon taxes for Qatar

The EDGAR (2024) report (European Commission et al., 2024) provides detailed information on GHG emissions by sector, highlighting significant increases between 2005 and 2024. During this period, emissions rose most sharply in the power industry

(236%), transport sector (175%), and industrial combustion (211%), while fuel exploitation increased by 95%, with an overall sectoral average of 148% (Crippa et al., 2025, p. 220). GHGs include carbon dioxide (CO_2), methane (CH4), nitrous oxide (N_2O), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs), with CO_2 representing the major component. Qatar's government data further indicates that the bulk of CO_2 emissions originates from a few key industries: oil and gas, power and water, industrial processes, and road transport (Table 4).

Given that these sectors contribute the majority of emissions, designing a carbon tax that targets the oil and gas and energy-intensive industries could be an effective policy tool. Such a mechanism would not only incentivise reductions in emissions but also align fiscal policy with Qatar's broader goals of economic diversification and sustainable development. This emissions profile provides the foundation for identifying the type of carbon tax most suitable for Qatar's context.

Table 4: CO_2 Emissions in Qatar by Sector in 2023 (Million Tons)

Major Contributors	Qatar's total emissions (CO_2 equivalent)	% contribution
waste	413,538	0.66
enteric and manure	84,865	0.14
industrial process	5,312,667	8.51
refinery	656,353	1.05
oil and gas	31,174,617	49.95
power and water	16,611,469	26.62
road transport	4,553,199	7.3
building industry	3,599,838	5.77

Source: Qatar Open data 2023, https://www.data.gov.qa/pages/homepage/.

Globally, the treatment of the oil and gas sector under carbon pricing mechanisms exhibits substantial heterogeneity across jurisdictions, reflecting differences in economic structures, political priorities, and institutional capacities. While most implementing countries apply these mechanisms broadly to fossil fuel consumption in sectors such as heating, transportation, electricity generation, and industrial processes, the oil and gas industry often receives tailored accommodations to mitigate competitiveness risks and facilitate transitional adjustments (OECD, 2022; World Bank, 2023). For instance, Nordic countries like Sweden, Finland, and Norway have adopted comprehensive carbon taxes since the early 1990s, encompassing upstream and downstream oil and gas activities with varying rates and exemptions to balance environmental efficacy and economic viability (Andersen, 2019). Similarly, Canada's federal-provincial carbon pricing system imposes taxes on fuel combustion while providing output-based rebates and exemptions for trade-exposed oil and gas facilities, aiming to preserve comparative advantages in global markets (Metcalf & Weisbach, 2009; World Bank, 2023). In contrast, the European Union's Emissions Trading System (EU ETS) operates as a cap-and-trade framework, covering power generation, industrial processes, and aviation, key areas for oil and gas operations, while allocating free allowances to vulnerable installations to avert carbon leakage and support gradual decarbonisation.[1]

In contrast, major hydrocarbon-exporting economies such as the United States, Saudi Arabia, and China have avoided comprehensive national carbon taxes, opting instead for subnational initiatives, pilot programs, or alternative instruments like emissions trading systems (OECD, 2022; World Bank, 2023). This divergence underscores a broader pattern: no major economy fully exempts the oil and gas sector from carbon pricing, but most incorporate partial exemptions, border adjustments, or revenue recycling to address regressivity and distributional concerns (OECD, 2022).

In case of Qatar, implementing a hybrid carbon tax framework that combines both upstream and downstream components would ensure comprehensive emissions coverage across the entire energy value chain. An upstream carbon tax, applied at the point of fossil fuel extraction or processing, would internalise the environmental cost of production, while a downstream component, levied at the point of fuel consumption, would encourage energy efficiency and behavioural change among end-users. Gradually introducing such an integrated approach, starting with modest tax rates that increase predictably over time, could generate stable fiscal revenues for reinvestment in renewable energy, carbon capture and storage (CCS), and energy-efficiency initiatives, while reducing fiscal dependence on volatile hydrocarbon revenues (World Bank, 2023).

Under this proposed policy approach, a broad-based and integrated carbon tax would enhance Qatar's long-term industrial efficiency by incentivising energy-intensive sectors to adopt solar energy, hydrogen technologies, and advanced battery storage systems. The resulting improvements in innovation capacity and energy productivity would not only lower production costs but also accelerate the transition toward a diversified and low-carbon economy. Therefore, a well-calibrated upstream–downstream carbon pricing mechanism could act as a catalyst for structural transformation, encouraging the oil and gas sector to invest in decarbonisation technologies and cleaner production methods. This approach would also strengthen Qatar's global competitiveness and reinforce its leadership in sustainable energy development within the region.

To maximise the environmental and socioeconomic benefits of carbon taxation, revenue-neutral recycling mechanisms should accompany its implementation. Redirecting carbon tax revenues toward household rebates, subsidies for low-carbon technologies, and green infrastructure would offset any regressive distributional impacts while stimulating non-hydrocarbon sectors. Such measures would promote inclusive and resilient economic growth, align fiscal policy with sustainable development objectives, and position Qatar at the forefront of the GCC in adopting innovative carbon-pricing strategies (OECD, 2022; World Bank, 2023).

[1] See European Commission, 'EU emissions trading system (EU ETS)', https://eur-lex.europa.eu/EN/legal-content/summary/eu-emissions-trading-system.html.

5. CONCLUSION AND POLICY RECOMMENDATIONS

This study has examined the role of carbon taxes as a pivotal instrument for advancing environmental development in Qatar, a hydrocarbon-dependent economy grappling with high per capita GHG emissions and fiscal vulnerabilities. Drawing on international practices and a comprehensive SWOT analysis, the article highlights how carbon pricing mechanisms can internalise negative externalities, incentivise cleaner production, and contribute to sustainable development goals, such as SDG 7 and SDG 13. The analysis reveals that Qatar's elevated CO_2 emissions, predominantly from the oil and gas, power, and transport sectors, necessitate targeted fiscal reforms, while the low tax-to-revenue ratio (averaging 11.3% from 2020-2025) emphasises the potential for carbon taxes to diversify government revenues and achieve a ‘double dividend’ of environmental protection and economic resilience.

The SWOT framework underscores key strengths, including emissions reductions, innovation in clean technologies, and revenue recycling to alleviate burdens on labour and capital, as evidenced by successful implementations in OECD countries. However, weaknesses such as regressivity and implementation uncertainties should be mitigated through well-designed progressive measures, including targeted rebates for low-income households and the gradual phasing in of tax rate increases. Opportunities lie in funding green initiatives, enhancing environmental awareness, and integrating carbon pricing with Qatar’s National Climate Change Action Plan, while threats, ranging from political resistance to CBAM complexities, can be mitigated via robust data collection, stakeholder consultations, and hybrid upstream–downstream approaches.

To realise these benefits, Qatar should adopt an integrated upstream–downstream carbon tax framework, starting with modest rates on extraction and processing (upstream) to capture emissions at the source, complemented by consumption-based levies (downstream) to promote energy efficiency among end-users. This hybrid model, informed by global precedents like the EU ETS and Nordic systems, would ensure comprehensive coverage of high-emission sectors, generate stable revenues for reinvestment in renewables, CCS, and sustainable infrastructure, and safeguard competitiveness through border adjustments and exemptions for trade-exposed industries.

6. REFERENCES

Abdellatif, M M, Eid, A G & Tran-Nam, B 2017, ‘Oil price fluctuations and the need for tax policy reform in Qatar’, *Bulletin for International Taxation*, vol. 71, no. 12, pp. 674-680.

Abdellatif, M & Tran-Nam, B 2023, ‘Assessing value added tax compliance burden in Gulf Cooperation Council countries’, *eJournal of Tax Research*, vol. 21, no. 2, pp. 301-332.

Andersen, M S, Speck, S & Mautone, O 2011, ‘Environmental fiscal reform – Illustrative potential in Italy’, prepared for the ‘Environmentally Related Taxation and Fiscal Reform’ conference, Ministry of Economy and Finance, Rome, 15 December.

Arbolino, R & Romano, O 2014, 'A methodological approach for assessing policies: The case of the environmental tax reform at European level', *Procedia Economics and Finance*, vol. 17, pp. 202-210.

Baranzini, A, Goldemberg, J & Speck, S 2000, 'A future for carbon taxes', *Ecological Economics*, vol. 32, no. 3, pp. 395-412.

Bruvoll, A & Larsen, B M 2017, 'Greenhouse gas emissions in Norway: Do carbon taxes work?', in Muller, A & Sterner, T (eds), *Environmental taxation in practice*, Routledge, London, pp. 545-557.

Choi, I 2016, 'A review of critical issues with respect to carbon tax', *Asia-Pacific Journal of Modeling and Simulation for Mechanical System Design and Analysis*, vol. 1, no. 1, pp. 47-54.

Chu, L K 2024, 'Towards achieving energy transition goal: How do green financial policy, environmental tax, economic complexity, and globalization matter?', *Renewable Energy*, vol. 222, 119933.

Eskeland, G S & Jimenez, E 1992, 'Policy instruments for pollution control in developing countries', *World Bank Research Observer*, vol. 7, no. 2, pp. 145-169.

European Commission, Directorate-General for Environment & Fogleman, V 2024, *Polluter pays principle: Liability for environmental damage*, Publications Office of the European Union, Luxembourg.

European Commission, Joint Research Centre, Crippa, M, Guizzardi, D, Pagani, F, Banja, M, Muntean, M, Schaaf, E, Monforti-Ferrario, F, Becker, W E, Quadrelli, R, Risquez Martin, A, Taghavi-Moharamli, P, Köykkä, J, Grassi, G, Rossi, S, Melo, J, Oom, D, Branco, A, San-Miguel, J, Manca, G, Pisoni, E, Vignati, E. & Pekar, F 2024, *GHG emissions of all world countries*, Publications Office of the European Union, Luxembourg.

Fatur Šikić, T & Hodžić, S 2023, 'Can environmental taxes decrease final energy consumption in the old and new EU countries?', *Economic Research – Ekonomska Istraživanja*, vol. 36, no. 3, 2271968.

Fullerton, D 2011, 'Six distributional effects of environmental policy', *Risk Analysis*, vol. 31, no. 6, pp. 923-929.

Faure, M G & Weishaar, S E 2012, 'The role of environmental taxation: Economics and the law', in Milne, J E & Andersen, M S (eds), *Handbook of research on environmental taxation*, Edward Elgar, Cheltenham, UK, pp. 399-421.

Goulder, L H 1995, 'Environmental taxation and the double dividend: A reader's guide', *International Tax and Public Finance*, vol. 2, no. 2, pp. 157-183.

Herrera Molina, P M 2012, 'Design options and their rationales', in Milne, J E & Andersen, M S (eds), *Handbook of research on environmental taxation*, Edward Elgar, Cheltenham, UK, pp. 85-101.

High-Level Commission on Carbon Prices (J E Stiglitz & N Stern, chairs) 2017, *Report of the High-Level Commission on Carbon Prices*, World Bank.

Hodžić, S 2019, 'Tax administrative challenges of the digital economy: The Croatian experience', *eJournal of Tax Research*, vol. 16, no. 3, pp. 762-779.

Hsu, S-L 2021, *Capitalism and the environment: A proposal to save the planet*, Cambridge University Press, Cambridge.

International Energy Agency 2023, *CO2 emissions in 2022*, IEA Publications, Paris, https://www.iea.org/reports/co2-emissions-in-2022.

International Monetary Fund (IMF) 2025, 'Qatar: Staff report for the 2024 Article IV Consultation', Washington, DC.

Kaufman, N 2019, 'What you need to know about a federal carbon tax in the United States, Center on Global Energy Policy fact sheet, 2 April, https://www.energypolicy.columbia.edu/publications/what-you-need-to-know-about-a-federal-carbon-tax-in-the-united-states/.

Krenek, A & Schratzenstaller, M 2016, 'Sustainability-oriented EU taxes: The example of a European carbon-based flight ticket tax', Fair Tax Working Paper Series No. 01, Umeå University and partner universities, European Union, May.

Luppi, B, Parisi, F & Rajagopalan, S 2012, 'The rise and fall of the polluter-pays principle in developing countries', *International Review of Law and Economics*, vol. 32, no. 1, pp. 135-144.

Marron, D B & Toder, E J 2014, 'Tax policy issues in designing a carbon tax', *American Economic Review*, vol. 104, no. 5, pp. 563-568.

Marsuni, N S 2021, 'Effective strategy in overcoming challenges in implementing carbon tax policy', *GoodWill: Journal of Economics, Management, and Accounting*, vol. 1, no. 1, pp. 24-29.

Metcalf, G E 2021, 'Carbon taxes in theory and practice', *Annual Review of Resource Economics*, vol. 13, no. 1, pp. 245-265.

Metcalf, G E & Weisbach, D 2009, 'The design of a carbon tax', *Harvard Environmental Law Review*, vol. 33, no. 2, pp. 499-556.

Miceikiene, A, Ciuleviciene, V, Rauluskeviciene, J & Streimikiene, D 2018, 'Assessment of the effect of environmental taxes on environmental protection', *Ekonomický časopis*, vol. 66, no. 3, pp. 286-308.

Ministry of Environment and Climate Change (MECC), Qatar 2021, *Qatar national strategy for environment and climate change*, Doha, https://climate-laws.org/document/qatar-national-environment-and-climate-change-strategy_ac70.

Ministry of Municipality and Environment, Qatar 2021, *Qatar national climate change action plan 2030*, Doha, https://www.mecc.gov.qa/Publications/NCCAP-Consolidated_digital-en_new.pdf.

Mintz-Woo, K 2021, 'Will carbon taxes help address climate change?', *Les ateliers de l'éthique*, vol. 16, no. 1, pp. 57-67.

Mpofu, F Y 2022, 'Green Taxes in Africa: Opportunities and challenges for environmental protection, sustainability, and the attainment of sustainable development goals', *Sustainability*, vol. 14, no. 16, 10239.

Organisation for Economic Co-operation and Development (OECD) 2008, *OECD Glossary of statistical terms*, OECD Publishing, Paris.

Organisation for Economic Co-operation and Development (OECD) 2010, *Taxation, Innovation and the Environment*, OECD Publishing, Paris.

Organisation for Economic Co-operation and Development (OECD) 2022, *Pricing greenhouse gas emissions: Turning climate targets into climate action*. OECD Publishing, Paris.

Organisation for Economic Co-operation and Development (OECD) 2023, *Methodological guidelines for environmentally related tax revenue accounts*, OECD Publishing, Paris.

Organisation for Economic Co-operation and Development (OECD) 2024, *Revenue Statistics 2024: Health taxes in OECD countries*, OECD Publishing, Paris.

Oueslati, W, Zipperer, V, Rousselière, D & Dimitropoulos, A 2016, 'Exploring the relationship between environmentally related taxes and inequality in income sources: An empirical cross-country analysis', OECD Environment Working Paper No. 100, OECD Publishing, Paris.

Parry, I W H, Norregaard, J & Heine, D 2012, 'Environmental tax reform: Principles from theory and practice', *Annual Review of Resource Economics*, vol. 4, pp. 101-125.

Pigou, A C 1920, *The economics of welfare*, Macmillan, London.

Planning and Statistics Authority, Qatar 2024, *Third Qatar National Development Strategy 2024–2030*, Doha, https://www.npc.qa/en/planning/nds3/Documents/QNDS3_EN.pdf.

Roginko, S A & Fazelianov, E M 2024, 'Arab oil vs green agenda', *Vestnik of Saint Petersburg University, Asian and African Studies*, vol. 16, no. 3, pp. 642-653.

Salib, P N 2021, 'The Pigouvian constitution', *University of Chicago Law Review*, vol. 88, no. 5, pp. 1081-1156.

Sandmo, A 2008, 'Pigouvian taxes', in Durlauf, S N & Blume, L E (eds), *The New Palgrave dictionary of economics*, 2nd edn, Palgrave Macmillan, London, pp. 4947-4948.

Seung-Joon, P 2007, 'A carbon tax or an environmental tax reform: Difficult dicision for Japan', Eighth Global Conference on Environmental Taxation, www.worldecotax.org/downloads/Presentations/SeungJoonPark.pdf.

Shaaban, K 2018, 'Who is going to ride the upcoming metro in Qatar?', in Stanton, N (ed.), *Advances in human aspects of transportation: Proceedings of the AHFE 2018 international conference on human factors in transportation, July 21-25, 2018, Loews Sapphire Falls Resort at Universal Studios, Orlando, Florida, USA*, Springer, Cham, pp. 671-675.

Stoianoff, N P & Walpole, M 2016, 'Tax and the environment: An evaluation framework for tax policy reform – Group Delphi study', *Australian Tax Forum*, vol. 31, no. 4, pp. 693-716.

Tan, Z, Wu, Y, Gu, Y, Liu, T, Wang, W & Liu, X 2022, 'An overview on implementation of environmental tax and related economic instruments in typical countries', *Journal of Cleaner Production*, vol. 330, 129688.

Tatariyanto, F 2023, 'Is carbon taxes will able to tackle forest fires in Indonesia: A Swot analysis in search of optimal policy', *Jurnal Ilmiah Manajemen Forkamma*, vol. 6, no. 2, pp. 126-143.

Tietenberg, T H 2006, *Emissions trading: Principles and practice*, 2nd edn, Resources for the Future Press, Washington, DC.

United Nations 2021, *United Nations handbook on carbon taxation for developing countries*, United Nations, New York.

Van den Eijnde, I 2022, ‘Environment tax law to save the planet?’, *Erasmus Law Review*, vol. 15, no. 3, pp. 229-239.

Wang, J 2024, ‘Assessing environmental protection tax's impact on firms' green practices: The mediating effect of green innovation and the moderating effect of executive green awareness’, *Journal of Cleaner Production*, vol. 474, 143593.

World Bank 2023, *State and trends of carbon pricing 2023*, World Bank, Washington, DC.

World Bank 2025, *State and trends of carbon pricing 2025*, World Bank, Washington, DC.

Zhong, J & Pei, J 2024, ‘Carbon border adjustment mechanism: A systematic literature review of the latest developments’, *Climate Policy*, vol. 24, no. 2, pp. 228-242.