

eJournal of Tax Research

Volume 24, Number 1

June 2026

(Special Issue: 16th International Conference on Tax Administration)

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Navigating transfer pricing complexity: standardisation, cooperation, and transparency

Stefan Greil,* Eleonore Kaluza-Thiesen,** Kim Alina Schulz*** and Caren Sureth-Sloane****

Abstract

This study examines the drivers of perceived corporate transfer pricing complexity. Our analysis is based on survey data from multinational firms in the manufacturing sector. We identify three key strategies expected to reduce transfer pricing complexity and associated compliance costs while enhancing tax compliance: standardising transfer pricing documentation, strengthening cooperation between tax authorities, and increasing transparency through expanded information exchange among tax authorities and between tax authorities and firms. The findings provide evidence-based insights for international tax policy aimed at reducing transfer pricing complexity and associated administrative burdens for both firms and tax administrations.

Keywords: transfer pricing; tax complexity; tax compliance; tax simplification; standardisation; documentation; transparency

We thank Rodney Brown, Chris Evans, Jennie Granger, Jeremy Hirschhorn, Ann Kayis-Kumar, Michael Walpole, Yan Xu, and the participants of the Faculty Research Workshop 2023 (Paderborn University), 33rd Annual Tax Research Network Conference, and 16th International ATAX Tax Administration Conference. Kim Alina Schulz and Caren Sureth-Sloane gratefully acknowledge financial support from the German Research Foundation (DFG) – Collaborative Research Center (SFB/TRR) Project-ID 403041268 - TRR 266 Accounting for Transparency. We would also like to thank the following institutions for their collaboration and support in distributing our survey: Working Group for Economic Administration (AWV), Bitkom, German Chamber of Commerce and Industry (DIHK), Institute for Finance and Taxes (IFSt), Foundation for Family Businesses, German Association of the Automotive Industry (VDA), German Chemical Industry Association (VCI), and German Chamber of Mechanical and Plant Engineering (VDMA). Eleonore Kaluza-Thiesen and Stefan Greil are employed at the German Federal Ministry of Finance. Both assure that this research has been conducted independently and has not been influenced by any party associated to the activity in the Ministry. Caren Sureth-Sloane serves on the supervisory board of Deloitte in Germany, a role limited strictly to supervisory functions within the German two-tier system. She affirms that this research has been conducted independently and has not been influenced by any party associated with her supervisory role.

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1. INTRODUCTION

We investigate the drivers of perceived transfer pricing complexity among multinational firms and examine how it may be reduced to lower compliance costs while improving adherence to transfer pricing regulations. Our analysis is based on survey data from German firms collected through a comprehensive questionnaire, informed by the literature and insights from transfer pricing experts at both firms and tax authorities. The survey investigates determinants of perceived transfer pricing complexity and related compliance costs, gathers practical experiences with existing approaches, and evaluates reform proposals. While prior research predominantly examines objective dimensions of transfer pricing complexity – such as regulatory scope, textual readability, or the frequency of legislative amendments (Hoppe et al., 2023; Gauß et al., 2024) – we focus on perceived transfer pricing complexity. Studying perceived transfer pricing complexity is important because managerial decisions are shaped by subjective assessments rather than purely objective regulatory characteristics. In line with Hoppe and co-authors (2023), we define perceived transfer pricing complexity as comprising two dimensions: the perceived complexity inherent in the relevant tax regulations (code), and the perceived complexity arising from tax-related administrative and judicial procedures (framework).

We conducted an online survey from May to July 2023, receiving 201 responses from tax experts in large and medium-sized German multinational firms, with a final sample of 109 responses. The data enable us to examine the key drivers of perceived transfer pricing complexity and identify measures expected to reduce complexity. In particular, we find that: (1) standardisation of transfer pricing documentation; (2) improved cooperation between national and foreign tax authorities, and (3) enhanced transparency between tax authorities and taxpayers, are perceived as effective in reducing complexity.

Over the last several decades, tax complexity has steadily increased (Asen, 2021; Hoppe et al., 2023), driven largely by the expansion of anti-tax avoidance regulations, including transfer pricing regulations providing the basis for applying the arm's length principle (Zinn, Riedel & Spengel, 2014),¹ and by the growing influence of supranational bodies issuing regulatory recommendations (e.g., Organisation for Economic Co-operation and Development (OECD) Model Convention on Income and on Capital and Commentary; OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations; United Nations Practical Manual on Transfer Pricing for Developing Countries). This increasing regulatory density contributes not only to the length and technical detail of transfer pricing rules, but also to greater interpretative uncertainty.

¹ E.g., European Union, *Council Directive (EU) 2018/822 of 25 May 2018 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation in relation to reportable cross-border arrangements* [2018] OJ L 139/1 (DAC 6, the 5th amendment to *Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC* [2011] OJ L 64/1; *Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market* [2016] OJ L 193/1 (Anti-Tax Avoidance Directive (ATAD)); the US Base Erosion and Anti-Abuse Tax (BEAT) initiative; national implementation of the results of the OECD Base Erosion and Profit Shifting (BEPS) project regarding the application of the arm's length principle (BEPS Action Items 8-10).

At the same time, the arm's length principle is conceptually indeterminate and can be interpreted differently by tax authorities and taxpayers, and might induce tax disputes. The OECD Transfer Pricing Guidelines (OECD, 2022b, para. 1.13), therefore, emphasise that there is no single transfer price that corresponds to the arm's length principle. From a theoretical perspective, fully comparable market transactions cannot exist, and without such transactions, a transfer price that conforms to the arm's length principle lacks distinct criteria (Greil et al., 2023), thereby amplifying interpretative discretion and perceived complexity.

As a result, transfer pricing has long been perceived as one of the most complex areas of tax regulation (De Waegenaere, Sansing & Wielhouwer, 2007; De Waegenaere & Sansing, 2010; Diller et al., 2025), including evidence from cross-country and single-country survey studies (Safaei, 2022; Azmi Shabestari & Safaei, 2024; Hoppe et al., 2023) and OECD statistics on mutual agreement procedures.² This perception is shared by both firms and tax authorities.³ The growing number of these regulations, their increasing technical detail, and frequent amendments further elevate compliance burdens for taxpayers and administrative burdens for tax authorities. In response to this complexity and the resulting risk of double taxation, procedural instruments have expanded to mitigate disputes (e.g., the OECD's International Compliance Assurance Programme (ICAP); Advance Pricing Agreements (APAs); the European Union's *Council Directive (EU) 2017/1852 of 10 October 2017 on tax dispute resolution mechanisms in the European Union*).

Tax complexity is closely linked to compliance costs (Mills, 1996; Tran-Nam et al., 2000; Owens, 2016; Lazos, Koutoupis & Pazarskis, 2022). Higher tax complexity can increase the time and expenses associated with tax return preparation and the avoidance of double taxation in international proceedings (Mills, 1996) and create opportunities to manipulate the tax system (Slemrod, 1989). However, compliance costs vary depending on firm characteristics: they tend to decrease as firms grow larger (Slemrod & Venkatesh, 2002; Eichfelder & Hechtner, 2018) but increase as firms diversify internationally (Blumenthal & Slemrod, 1995; Tran-Nam et al., 2000; Owens, 2016). Multinational firms with extensive international networks, however, may be able to navigate these tax complexities more efficiently (Euler et al., 2024).

In the context of transfer pricing, the literature identifies three main drivers of compliance costs. First, differences in calculation methods within tax regulations increase compliance costs, as firms must distinguish among several options to determine the optimal transfer price (Baldenius, Melumad & Reichelstein, 2004; Zwick, 2021). Second, compliance costs increase due to uncertainty about transfer pricing regulations (Towery, 2017) and differences in regulatory frameworks across countries (Plesner Rossing, 2013). Third, uncertainty about how the arm's length principle is correctly applied further increases compliance costs (Plesner Rossing, 2013; Smith, 2002).

These determinants closely relate to the conceptualisation of perceived tax complexity proposed by Hoppe and co-authors (2023). Their tax complexity index captures compliance costs arising from the choice of calculation methods, as the perceived

² OECD, '2024 mutual agreement procedure statistics', <https://www.oecd.org/en/data/datasets/mutual-agreement-procedure-statistics.html> (accessed 4 March 2026).

³ For Germany, Bornemann, Schipp and Sureth-Sloane (2021); for Indonesia, Schipp, Siahaan and Sureth-Sloane (2026).

complexity of the tax ‘computation’. In addition, complexity emerges in the application of the arm’s length principle, which is inherently argument dependent and does not yield a single correct price. According to Hoppe and co-authors (2023), complexity arises both from the application of this principle and from reliance on controversial legal fictions. Taken together, the choice of methods and the indeterminacy of the arm’s length principle correspond to elements of perceived tax framework complexity and help explain why transfer pricing complexity is particularly associated with high compliance costs. Overall, compliance costs pose a substantial challenge for firms striving to comply with tax rules. Accordingly, reducing transfer pricing complexity may contribute to lowering compliance costs and strengthening tax compliance.

Although tax complexity may lead to frustration and non-compliance when regulations are overly opaque (Kirchler, Hoelzl & Wahl, 2008; Heinemann-Heile et al., 2025), the specific cost drivers of transfer pricing complexity have received only limited empirical attention, and only a few studies provide evidence-based recommendations for reducing such complexity. Prior research on reducing complexity and compliance costs often focuses on formulary apportionment, by examining how transfer pricing disputes might be avoided through a fundamental redesign of the profit allocation system (Martini, Niemann & Simons, 2016; Greil, 2021; Akhand & Mawani, 2023), with only a limited number of studies addressing reforms within the arm’s length principle (e.g., Greil et al., 2023).

Our study does not propose a new transfer pricing profit allocation regime. Instead, we contribute to the literature by providing systematic survey evidence from Germany on the perceived drivers of transfer pricing complexity and their associated costs within the existing internationally agreed profit allocation framework and by deriving empirically grounded recommendations to reduce this perceived complexity. These recommendations may assist policymakers seeking to improve the administrability of the current arm’s length-based system and are consistent with ongoing international simplification efforts, such as the implementation of ‘Amount B’, which provides for standardised margins (OECD, 2024a).

Research on the effects of tax complexity on compliance has largely focused on individual taxpayers (e.g., Kirchler et al., 2008; Batrancea et al., 2019; Mardhiah, Miranti & Tanton, 2019; Inasius et al., 2020), while studies examining firms’ tax compliance are comparatively scarce (e.g., Bayer & Cowell, 2009; Mendoza, Wielhouwer & Kirchler, 2017; Chen et al., 2021). Existing firm-level evidence indicates that enforcement through tax audits can deter tax avoidance, albeit only up to a certain auditing threshold (Mendoza et al., 2017). However, these studies do not examine measures that could directly affect firms’ tax compliance behaviour, nor do they identify the drivers of voluntary compliance, potential avenues for simplifying tax systems, or the specific challenges associated with transfer pricing compliance.

Turning to transfer pricing more specifically, the literature has likewise devoted limited attention to identifying viable avenues for simplification. Most studies examine how firms organise tax planning and tax avoidance (Keuschnigg & Devereux, 2013; Kohlhase & Wielhouwer, 2023), analyse the scope of profit shifting, even when firms aim to comply with transfer pricing regulations (Bauer & Langenmayr, 2013), and investigate unintended tax avoidance arising from transfer pricing inconsistencies across countries (Diller et al., 2025). Klassen, Lisowsky and Mescall (2017) document that firms prioritise transfer pricing tax compliance over tax planning, a conclusion reinforced by Roggeman, Aro-Sati and Verleyen (2025) in their interview study.

We extend this literature by investigating the main drivers of transfer pricing complexity and examining measures that may mitigate its associated costs. Our study advances research in three key respects. First, we contribute to the literature on tax complexity by identifying primary sources of complexity from the perspective of firm-level experts in the comparatively underexplored area of transfer pricing. In doing so, we provide a more comprehensive perspective on tax complexity by highlighting the pivotal role of specific transfer pricing regulations. Second, we offer insights into promising measures for reducing the costs associated with transfer pricing complexity, thereby enriching the literature on compliance costs (e.g., Slemrod, 1989; Blumenthal & Slemrod, 1995; Mills, 1996). Third, we contribute to the transfer pricing literature on firms' tax avoidance (e.g., Bauer & Langenmayr, 2013; Keuschnigg & Devereux, 2013; Kohlhase & Wielhouwer, 2023) by identifying strategies aimed at simplifying transfer pricing regulation and strengthening compliance within the existing framework.

To the best of our knowledge, this is the first study to derive empirically grounded simplification recommendations for transfer pricing regulation based on firm-level survey evidence. Our evidence points to three main channels that are perceived as most effective in reducing compliance costs associated with transfer pricing complexity. The first, *standardisation*, includes measures such as a standardised questionnaire for risk management and globally standardised transfer pricing documentation – both identified by respondents as highly effective in lowering compliance costs. The second channel, *cooperation*, highlights the perceived benefits of joint transfer pricing audits involving both domestic and foreign tax authorities. The third channel, *transparency*,⁴ focuses on enhanced information exchange among tax authorities – particularly through the automatic exchange of master files – and greater disclosure between firms and tax authorities, including the publication of firm-relevant data and functional bandwidths (e.g., for production or sales activities). In addition, respondents perceive the anonymised publication of transfer pricing issues arising from mutual agreement procedures as further improving clarity and reducing compliance costs.

Although we do not empirically test the causal effectiveness of the measures, our study provides important survey evidence on how firms perceive the relationship between transfer pricing complexity and tax compliance. It is important to emphasise that our survey captures perceived tax complexity, consisting of code and framework complexity (Hoppe et al., 2023). Such perceptions are economically relevant, as demonstrated by research on the real effects of perceived tax complexity (Zwick, 2021; Euler et al., 2024) and tax (mis)perceptions on firms' decisions (Heinemann-Heile et al., 2025).

Our three reform channels should be understood as complementary to, rather than substitutes for, evidence from objective or case-based studies (Smith, 2002; Baldenius et al., 2004; Plesner Rossing, 2013; Towery, 2017). The measures perceived as effective primarily operate by reducing framework complexity (Hoppe et al., 2023), thereby lowering regulatory and procedural uncertainty, which is closely linked to both complexity and compliance costs (Smith, 2002). Therefore, our study sheds light on the relationship between transfer pricing complexity, compliance costs, and tax compliance. The measures identified in our study provide empirically grounded predictions for

⁴ We think of transparency in line with the definition used by Bischof and co-authors (2024, p. 574): 'Transparency ... as the quality of information generated, distributed, received, and processed by economic agents ... an attribute of the communication between a sender and a receiver'.

future research and offer policy-relevant insights into potential avenues for reducing complexity.

As with all survey-based research, our findings are subject to certain limitations. Self-selection bias cannot be excluded, and it is possible that not all respondents answered every question with equal diligence. However, the survey ensured full anonymity, which should encourage honest responses, and the use of neutral wording aimed to minimise framing effects. To address the limitations inherent in subjective survey data, future research could combine our findings with administrative or case-based data (McNamara & Mosquera, 2025) to further assess the relationship between transfer pricing complexity and tax compliance.

Although our analysis is based on Germany, the findings are likely relevant for other countries facing comparable institutional settings and transfer pricing challenges. Evidence from Germany is particularly informative, as Germany is part of the EU common internal market and, at the same time, has one of the highest numbers of mutual agreement procedures among EU member states (OECD, 2025).⁵ The German evidence and the subsequent analysis highlight the implications of overly complex, non-standardised, and opaque transfer pricing regulations, which may undermine the potential benefits of economic integration within a common market or under free trade agreements by increasing administrative frictions and legal uncertainty.

2. LITERATURE

The transfer pricing literature can be broadly structured into three main research streams: (1) determinants and manifestations of transfer pricing complexity; (2) strategies aimed at reducing complexity and associated compliance costs, and (3) the relationship between transfer pricing regulation, enforcement, and firms' tax compliance behaviour. While these studies provide valuable insights, they offer limited empirical evidence on how firms perceive the drivers of transfer pricing complexity and their costs, and which measures within the existing arm's length framework may effectively mitigate it. Our study addresses these gaps by providing detailed survey evidence on drivers of perceived complexity, assessing existing and proposed simplification measures, and examining their perceived association with tax compliance.

We build on Hoppe and co-authors (2023), who conceptualise perceived tax complexity based on cross-country survey evidence. They distinguish between tax code complexity, reflecting the structure and content of tax regulations, and tax framework complexity, arising from administrative processes, enforcement practices, and institutional features of the tax system.

The first research stream examines the determinants of transfer pricing complexity and identifies several factors associated with higher compliance costs. These factors include divergent applications and interpretations of regulations and standards across countries (Diller et al., 2025; Roggeman et al., 2025), difficulties in valuing intangible and hard-to-value assets (Safaei, 2022), fluctuating market conditions affecting transfer pricing strategies (Klassen et al., 2017), and increasingly demanding documentation

⁵ OECD, '2024 mutual agreement procedure statistics', <https://www.oecd.org/en/data/datasets/mutual-agreement-procedure-statistics.html> (accessed 4 March 2026).

requirements combined with intensified scrutiny by tax authorities (Marques & Pinho, 2016; Joshi, 2020; Joshi et al., 2020; Roggeman et al., 2025).

A central mechanism underlying these factors is regulatory uncertainty, which is closely linked to both complexity and compliance costs. For example, the availability of multiple calculation methods increases compliance costs because firms must select among alternative approaches when determining an appropriate transfer price (Baldenius et al., 2004; Zwick, 2021). This challenge is reinforced by uncertainty regarding the interpretation of transfer pricing regulations (Towery, 2017), differences across national regulatory frameworks (Plesner Rossing, 2013), and ambiguity in applying the arm's length principle (Plesner Rossing, 2013; Smith, 2002).

Building on this perspective, Hoppe and co-authors (2023) conceptualise tax complexity as a multidimensional construct that complicates the application of corporate income tax rules. Their approach explicitly incorporates uncertainty regarding both the content and interpretation of regulations, treating it as a central dimension of a broader complexity construct.

While these studies broadly explore the determinants of transfer pricing complexity, they provide limited guidance on which specific regulatory features could be simplified. A more granular analysis that incorporates taxpayer perceptions can help identify which aspects of transfer pricing regulation contribute most to compliance burdens and where targeted simplification may be feasible. Our study addresses this gap by providing systematic survey-based evidence on perceived complexity drivers, thereby offering detailed insights into the specific regulatory and procedural features that firms associate with high compliance burdens.

A second stream of literature examines policy and administrative measures aimed at reducing transfer pricing complexity and associated costs. Proposed measures include documentation-related reforms such as standardised reporting requirements (Doeleman, 2023; Diller et al., 2025), technological solutions for data management and analytics (Hemling, Plesner Rossing & Hoffjan, 2022), simplified approaches for low-risk transactions (Navarro, 2019; Scandone, 2023; Petkova & Greil, 2025), cooperative instruments such as advance pricing agreements (De Waegenare et al., 2007), and proactive transfer pricing risk assessment frameworks (De Widt & Oats, 2017). However, these contributions typically evaluate individual instruments in isolation and provide limited systematic evidence on how firms perceive the relative effectiveness of different simplification measures within the existing arm's length framework.

These findings align with broader research on tax complexity, which suggests that greater complexity reduces tax predictability. Such uncertainty may foster more aggressive tax planning behaviour (Alm, 2014) while simultaneously lowering tax morale and voluntary compliance (Alm & McClellan, 2012).

In general, high compliance costs arise from determining and documenting taxable income, preparing tax returns (Slemrod, 1989), and handling tax audits (Mills, 1996). Given that documentation requirements are repeatedly identified as a central driver of transfer pricing complexity, there is a need for systematic evidence on which documentation-related elements contribute most to compliance burdens and how targeted simplifications within the existing framework may reduce these costs.

Eichfelder and Vaillancourt (2014) provide a comprehensive review of compliance cost research and identify tax law complexity as the primary cost driver, followed by administrative inefficiencies and insufficient digitalisation of tax processes (Beuselinck et al., 2026). Compliance costs are particularly pronounced for small firms and self-employed taxpayers (Eichfelder & Vaillancourt, 2014; Buske et al., 2018). Moreover, compliance costs vary across firms. They tend to decrease with firm size (Slemrod & Venkatesh, 2002; Eichfelder & Hechtner, 2018) but increase with international diversification, which exposes firms to more complex transfer pricing requirements (Blumenthal & Slemrod, 1995). However, multinational firms with extensive international networks may be better equipped to manage such complexities due to accumulated experience and organisational specialisation (Amberger et al., 2026; Euler et al., 2024).

While the compliance cost literature highlights tax law complexity as a central driver, it rarely examines which specific elements of transfer pricing regulation are perceived as particularly burdensome by multinational firms. Given the substantial variation in compliance costs across firms and institutional settings, capturing firms' perceptions of transfer pricing complexity becomes particularly informative. Our survey-based approach enables us to assess these perceptions and examine how firms evaluate cooperative approaches proposed as instruments to reduce compliance costs (Eberhartinger & Zieser, 2021). Lower compliance costs may also yield broader economic benefits, including positive effects on investment (Van der Geest & Jacob, 2023; Euler et al., 2024). Nevertheless, empirical evidence remains limited regarding which regulatory adjustments and policy instruments are perceived as most promising in reducing transfer pricing complexity. Our study contributes to this gap by identifying and evaluating concrete policy measures from the perspective of multinational firms, thereby providing a survey-based foundation for future cross-country empirical studies.

The third research stream focuses on tax compliance but has primarily examined tax systems at an aggregate level, with comparatively limited attention to transfer pricing. Among the limited number of studies addressing transfer pricing compliance, Blouin, Robinson and Seidman (2018) show that enhanced information exchange and enforcement cooperation between tax authorities reduce tax avoidance among US multinationals. Form and Oestreicher (2021) provide evidence that stronger collaboration between tax authorities and firms can enhance compliance. Using firm-level case studies, Plesner Rossing (2013) documents that inter-organisational collaboration among firms' transfer pricing experts within management control systems can reduce tax uncertainty, while Jost, Pfaffermayr and Winner (2014) show that firms' perceptions of transfer pricing risk depend on transaction characteristics and prior audit experiences. However, these studies primarily examine enforcement mechanisms, cooperation, and risk perceptions, rather than systematically identifying which specific regulatory features of transfer pricing regimes contribute to perceived complexity and compliance burdens.

In this context, survey evidence from Klassen and co-authors (2017) indicates that firms prioritise transfer pricing compliance over tax planning. Roggeman and co-authors (2025) corroborate this finding through interview-based evidence for Belgium, concluding that multinationals increasingly focus on tax compliance rather than tax avoidance, largely in response to heightened audit risk following BEPS Action 13. These findings suggest that transfer pricing is increasingly managed as a compliance function rather than as a tax planning instrument, underscoring the importance of

understanding which regulatory features drive perceived complexity and compliance burdens within the existing framework.

Despite these insights, the literature provides limited evidence on compliance in relation to specific regulatory features of transfer pricing regimes. While tax compliance research predominantly focuses on individual taxpayers (Batrancea et al., 2019; Mardhiah et al., 2019; Inasius et al., 2020), firm-level compliance remains comparatively underexplored (Djawadi & Fahr, 2013; Fochmann et al., 2023). Moreover, enforcement-based studies indicate that tax audits can deter avoidance, albeit only up to a certain intensity (Mendoza et al., 2017), thereby leaving open the question of which non-enforcement-based measures might more effectively foster compliance.

Similarly, the transfer pricing literature has largely focused on tax planning and avoidance strategies (Keuschnigg & Devereux, 2013; Kohlhase & Wielhouwer, 2023). Studies demonstrate that profit shifting may occur even when firms formally comply with transfer pricing regulations (Bauer & Langenmayr, 2013) and that inconsistencies in transfer pricing rules across countries can result in unintentional tax avoidance (Diller et al., 2025). Although Klassen and co-authors (2017) and Roggeman and co-authors (2025) highlight that firms prioritise compliance over tax planning, there is limited empirical evidence on whether and how targeted simplifications within the existing transfer pricing framework might strengthen voluntary compliance.

Existing research suggests that stricter transfer pricing regulations may have heterogeneous effects on tax compliance and economic outcomes. Laudage Teles, Riedel and Strohmaier (2023) document an increase in tax revenues for developing countries following the introduction of transfer pricing regulations. Haufler and Schindler (2023) show that patent box regimes aligned with the stricter nexus approach can reduce aggressive tax competition. However, more stringent transfer pricing rules may discourage investments (Azmi Shabestari & Safaei, 2024; Laudage Teles et al., 2026). Additionally, Bustos and co-authors (2022) find that stricter reporting requirements in Chile have led to more sophisticated tax planning strategies. These findings illustrate that increasing regulatory stringency is not unambiguously associated with improved compliance and may entail unintended economic consequences, thereby highlighting the importance of identifying targeted measures that reduce complexity without imposing excessive additional burdens. Our study addresses this gap by examining which simplifications to transfer pricing regulations taxpayers perceive as most conducive to strengthening compliance.

3. SURVEY DESIGN AND SAMPLE

3.1 Survey design

We investigate the relationship between perceived transfer pricing complexity, associated compliance costs, and firms' tax compliance behaviour. We developed a structured questionnaire to assess firms' perceived drivers of transfer pricing complexity and compliance costs, as well as their evaluation of potential simplification measures. Consistent with Hoppe and co-authors (2023), we conceptualise perceived tax complexity as comprising tax code complexity and tax framework complexity.

The questionnaire items were derived from the tax complexity and tax compliance literature discussed in section 2 and refined through consultations with experienced transfer pricing practitioners from firms and tax authorities. In addition, we collected

firm-level characteristics from respondents, which were incorporated in the empirical analyses.⁶ To ensure clarity, comprehensibility, and an appropriate completion time, the questionnaire was pre-tested with students specialising in business taxation and revised based on their feedback.

The final questionnaire contains seven sections (see Appendix 2).⁷ Section 1 includes questions on firm information, like the legal form, size, industry, and whether the firm is part of a corporate group.⁸ Section 2 assesses the perceived relevance of tax compliance within the firm and seeks information regarding compliance measures. Section 3 evaluates the importance of external factors like German penalties, the perceptions of civil society, and the compliance of other firms. Section 4 examines the complexity of transfer pricing and the associated compliance burden. Section 5 delves into the relationship between the firm and the German tax authority and their experiences with German tax audits and mutual agreement procedures with other tax authorities. Section 6 assesses the relevance of possible simplifications in transfer pricing regulations. The last section elicits demographic and personal characteristics, which can be provided optionally.⁹

3.2 Sample

We distributed our survey using the online survey platform LimeSurvey¹⁰ between May and July 2023. In total, 201 tax employees of German firms participated in the survey, of which 109 completed all mandatory questions.¹¹ After excluding answers in which the participants completed the questionnaire in less than 10 minutes or more than 60 minutes, our final sample consists of 91 observations (see Table 1, Appendix 1). The mean duration of responses in this sample is 20.01 minutes. Compared to the estimated answering duration of 20 minutes, derived from the preliminary tests, we categorise these responses as satisfactory, even though some participants may have answered carelessly. Variable definitions can be found in Table 2 (Appendix 1).

Table 3 (Appendix 1) displays the summary statistics, and Table 4 (Appendix 1) shows the demographics of our sample. Approximately 71% of the firms in our sample are corporations, and 29% are partnerships, including 21% with mixed legal forms.¹² Ninety-five per cent of the respondents have more than 250 employees and thus fulfil at least one of the criteria for classification as a large enterprise according to section 267 of the German Commercial Code (HGB). Most firms included in the sample are either (subgroup) parent firms (74%) or permanent establishments or subsidiaries (18%), and all the firms are connected to other foreign locations of their business. Additionally, 74% of the firms have their own tax department. Therefore, we expect the firms to be experienced with transfer pricing, which qualifies the respondents to respond

⁶ The Ethics Committee of Paderborn University classified the project as ethically unobjectionable upon request.

⁷ The survey was conducted in German.

⁸ Firms that are neither a parent firm nor a subsidiary or permanent establishment are classified as being not part of a group. They are excluded from the sample, as they cannot provide reliable information on transfer pricing experiences.

⁹ All questions in sections 1 to 6 are mandatory to answer. A respondent can choose the option 'no answer' to provide no information on a certain question.

¹⁰ For more information, see <https://www.limesurvey.org/de>.

¹¹ The following analyses will focus only on these full responses.

¹² Mixed legal forms are special German legal forms that combine characteristics of corporations and partnerships such as GmbH & Co. KG.

appropriately to our questionnaire. Additionally, 70% of the respondents hold at least the position of *head of* department and have decision-making power within the firm and tax department. Further demographic information on the firms and respondents can be found in Table 4 (Appendix 1).

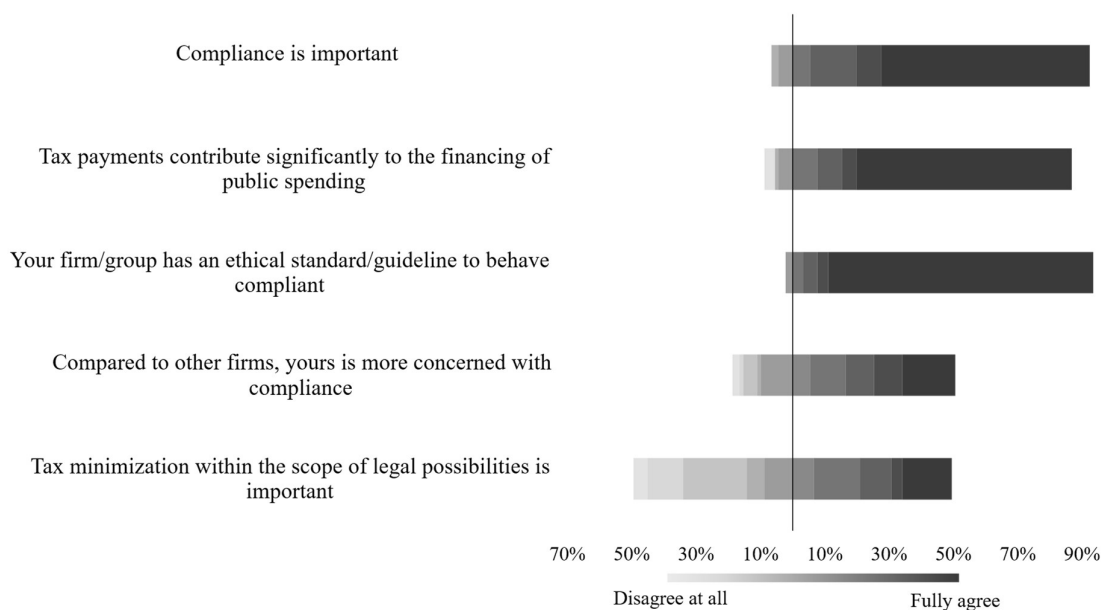
Forty-two per cent of the responding firms are classified as belonging to the mechanical engineering industry (see Table 5, Appendix 1), which is part of the manufacturing industry, according to the German classification of industries (Statistisches Bundesamt, 2008). In total, 79% of the responding firms are classified as manufacturers. In Table 5, we compare the industry classification of our sample and the classification of all large German firms in 2021. As in our sample, most of these firms are also classified as manufacturers. By focusing on manufacturing, we provide relevant insights into a critical sector of the German economy.

Our survey design has limitations. Due to the small sample size, we cannot conduct empirical tests and therefore cannot draw causal implications. However, the survey evidence provides an essential understanding of the complexity of transfer pricing. It can provide valuable insights into measures that could reduce costs and complexity from a firm's perspective. Despite the lack of empirical evidence, the study can contribute to future regulatory deliberations.

4. RESULTS

4.1 Transfer pricing complexity and tax compliance (cost)

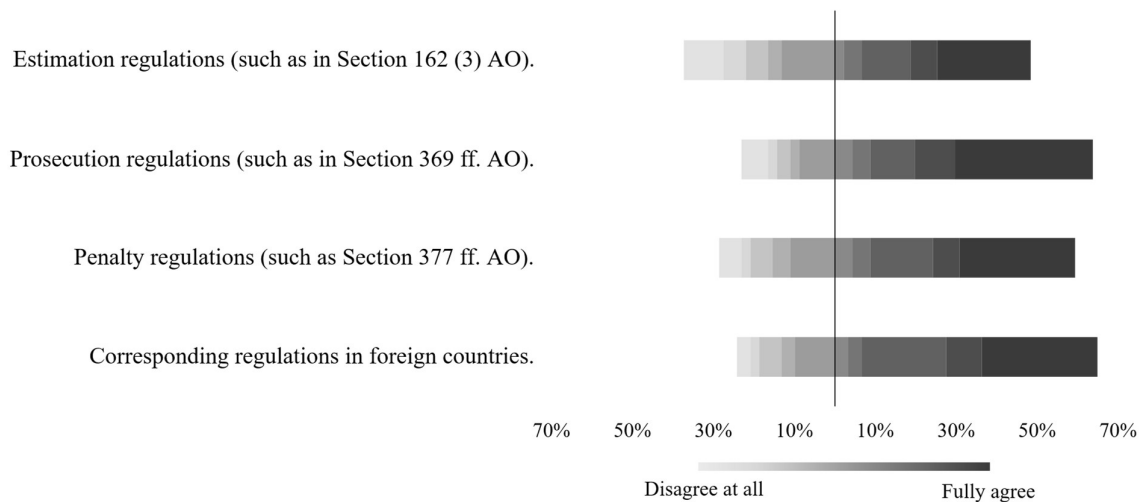
We asked questions about the relevance of tax compliance within the firm, as shown in Figure 1. In general, 92% (65%) of the respondents (fully) agree that compliance is important, and 93% agree that their firm has an ethical obligation to comply. Respondents and the firms they work for therefore appear to consider compliance to be highly relevant, and the majority (87%) are also aware of the social responsibility of their tax payments. Interestingly, 51% consider their firm to be more concerned with compliance than others, which may be an exaggeration and a possible bias in their answers. Additionally, we asked the participants how relevant the estimation, prosecution, and penalty regulations of the German tax law are for firms' decisions on the importance of transfer pricing tax compliance (see Figure 2). Especially prosecution (64%) and penalties (59%) are perceived to matter for compliance decisions, which comports with the positive deterrence effect on tax compliance found by Kirchler and co-authors (2008). In addition to German regulations, corresponding foreign regulations matter to the firms. Nevertheless, the results of Mendoza and co-authors (2017) show a decrease in tax compliance after a certain level of deterrence.

Fig. 1: Relevance of Tax Compliance in General

This Figure shows the perceived relevance of tax payments and compliance at the respondents' firm or group on a 10-point Likert scale. Source: Modified and translated from Greil et al. (2024).

Fig. 2: Relevance of Regulations for Transfer Pricing Compliance

The existence of the following regulations is important in deciding how important your firm/group considers transfer pricing compliance.

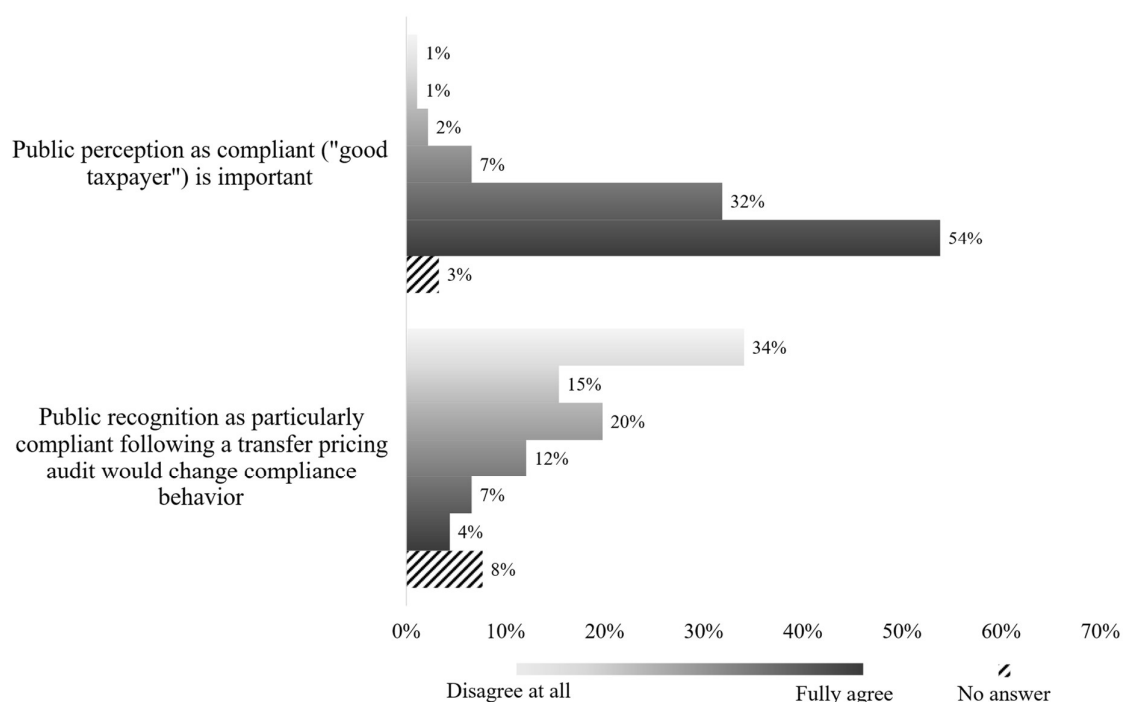


This Figure shows, on a 10-point Likert scale, the perceived relevance of the German tax law's estimation, prosecution, and penalty regulations for the importance of transfer

pricing tax compliance at the respondents' firm or group. Source: developed by the authors.

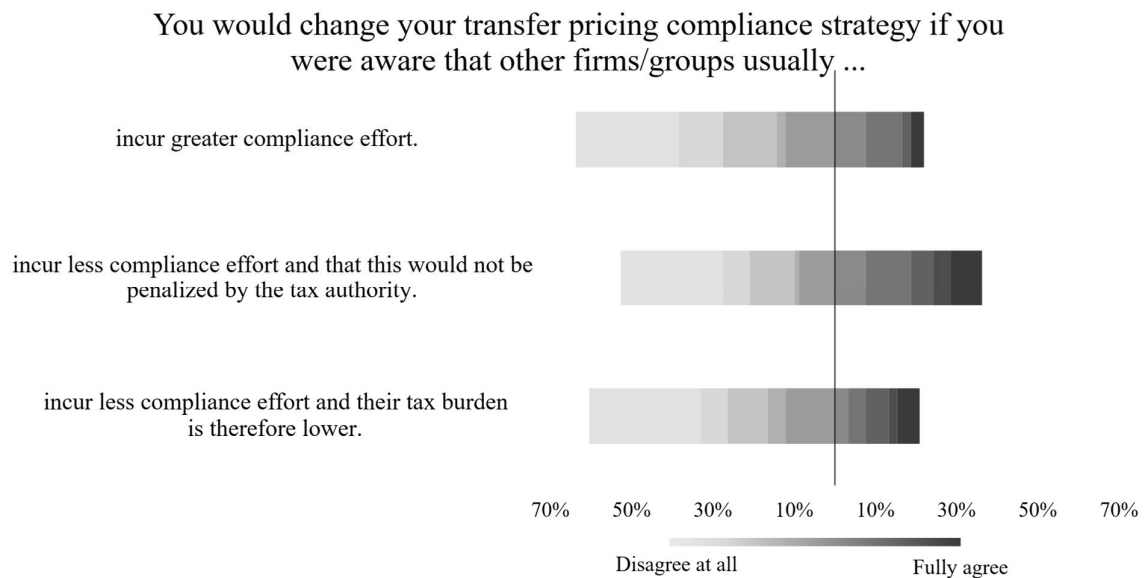
Furthermore, public perception of being a 'good taxpayer' in the transfer pricing area is essential for firms, as 93% of the participants indicate (see Figure 3). However, 69%, of which 34% fully agree, respond to a further question that these reputations do not influence their transfer pricing compliance. This evidence comports with the results of Gallemore, Maydew and Thornock (2014) that, apart from a short time decline in share prices, firms do not face high reputational costs from tax avoidance. This means that consumers perceive tax misconduct as less severe than other kinds of misconduct. Additionally, Asay and co-authors (2024) show that firms' negative tax news does not change consumers' purchasing decisions. Also, other firms' compliance efforts seem unimportant to the respondents' firms' transfer pricing compliance (see Figure 4).

Fig. 3: Relevance of Reputation for Transfer Pricing Compliance



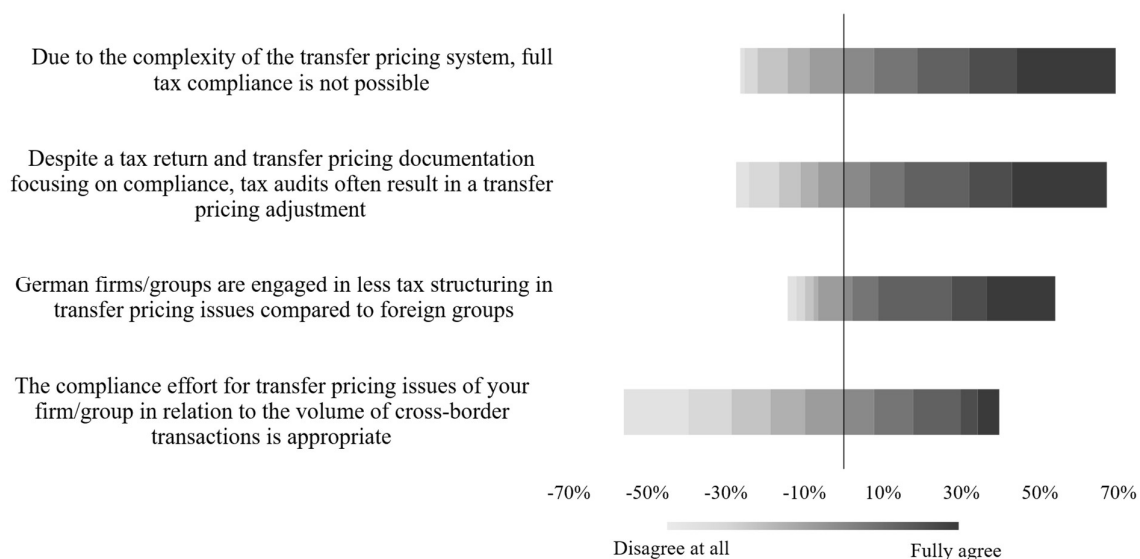
This Figure shows, on a 10-point Likert scale, the perceived relevance of reputation for transfer pricing tax compliance of the respondents' firm or group. Source: modified and translated from Greil et al. (2024).

Fig. 4: Relevance of Other Firms' Transfer Pricing Compliance Efforts for Compliance



This Figure shows, on a 10-point Likert scale, the perceived relevance of the transfer pricing compliance efforts of other firms or groups to the respondents' firm or group's tax compliance. Source: developed by the authors.

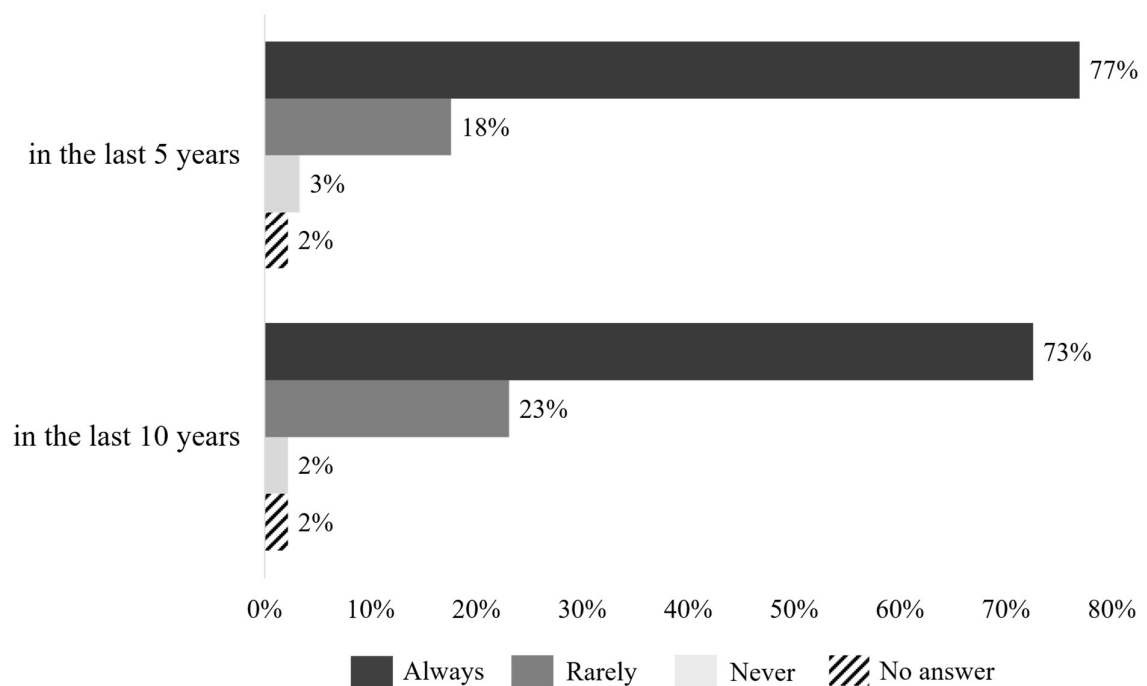
In further questions, the participants were asked about the relationship between transfer pricing complexity, costs, and compliance. Figure 5 shows that complexity can crucially determine compliance. For instance, 69% of the respondents state that comprehensive transfer pricing tax compliance is impossible due to the complexity of the transfer pricing system, even though their firm aims to comply. Furthermore, the costs associated with transfer pricing compliance are so high that 56% of the respondents perceive the burden as inappropriate compared to the volume of the corresponding cross-border transactions. This might result in firms reducing cross-border transactions, as these are no longer profitable due to compliance costs. This is consistent with the results of Azmi Shabestari and Safaei (2024), who find a negative association between changes in transfer pricing regulations, leading to increased compliance costs, and multinationals' investments. Our evidence also comports with the results of Mescall and Klassen (2018), who find that higher transfer pricing risks and costs are associated with lower cross-border merger and acquisition premiums, resulting in less profitable investments. Further costs might arise because of more frequent tax audits. According to the respondents (67%), tax audits often lead to transfer price adjustments, even though the firm provides documentation focused on compliance (Diller et al., 2025).

Fig. 5: Perception of Transfer Pricing Complexity and Compliance Behaviour

This Figure shows, on a 10-point Likert scale, how the respondents perceive the transfer pricing complexity and compliance of German firms and their firms or groups. Source: modified and translated from Greil et al. (2024).

4.2 Audits and firms' relationships with tax authorities

As described in section 4.1, tax audits increase costs for the firm. In principle, audits can improve tax compliance due to their deterrence effect (Kirchler et al., 2008). However, this effect depends, for example, on the number of audits conducted. Too many tax audits can lead to a 'backfiring effect' and reduce tax compliance, according to Mendoza and co-authors (2017). Furthermore, tax audits can lower tax compliance when the firm perceives itself as being unfairly treated by the tax authority (Frey, 2003; Isa & Pope, 2010; OECD, 2010). In this regard, we asked the participants how they perceived the number of tax audits covering transfer pricing cases. As shown in Figure 6, 73% of the participants state that tax audits have always investigated transfer pricing issues in the last 10 years. This value increases by four percentage points when asking for the previous five years. Based on the mentioned research results, firms' tax compliance could decrease due to the high probability of a transfer pricing audit. Compliance could become less relevant for firms if they perceive that they are always being audited and that adjustments are often made as part of the audit. The responses in section 4.1 add further evidence, where the majority also stated that transfer prices are often adjusted during an audit.

Fig. 6: Transfer Pricing Cases in Tax Audits

This Figure shows how often respondents report that transfer pricing cases have been addressed in tax audits at their firm or group in the last five and ten years. Source: Modified and translated from Greil et al. (2024).

We asked further questions regarding the relationship between the German tax authority and firms in transfer pricing cases. The results illustrated in Figure 7 provide insights into the tax authorities' behaviour and their understanding of the firms. The respondents generally perceive their firms' relationship with the tax authority as being respectful (82%) and trustful (75%). Contrary to this positive perspective on the general relationship, they perceive the relationship as not service-oriented (58%), indicating a lack of cooperation. Furthermore, 55% of the respondents perceive the tax authorities' understanding of the economic and organisational processes as insufficient, which underlines firms' demand for collaboration and communication.

Fig. 7: Relationship to the German Tax Authority in Transfer Pricing Cases

This Figure shows, on a 10-point Likert scale, how respondents perceive the relationship and behaviour of the German tax authority toward their firm or group in transfer pricing cases. Source: modified and translated from Greil et al. (2024).

Figure 8 shows that, despite the generally positive relationship between the tax authority and firms, the participants call for improvements in the level of trust, especially during transfer pricing tax audits. In some cases (45%), transfer pricing audits are perceived as arbitrary, and transfer pricing adjustments are perceived as technically insufficiently justified (44%). Furthermore, only 41% answered that transfer pricing audits are fair, and 64% disagree that tax audits contribute to uniform taxation in transfer pricing. These responses indicate that transparency and trust in the relationship between the tax authority and firms need to improve. Further answers underline the importance of a trusting, respectful, and service-oriented relationship between the tax authority and the firm. Seventy-one per cent of the respondents agree that these aspects would enhance compliance.

Fig. 8: Relationship to the German Tax Authority During Transfer Pricing Tax Audits

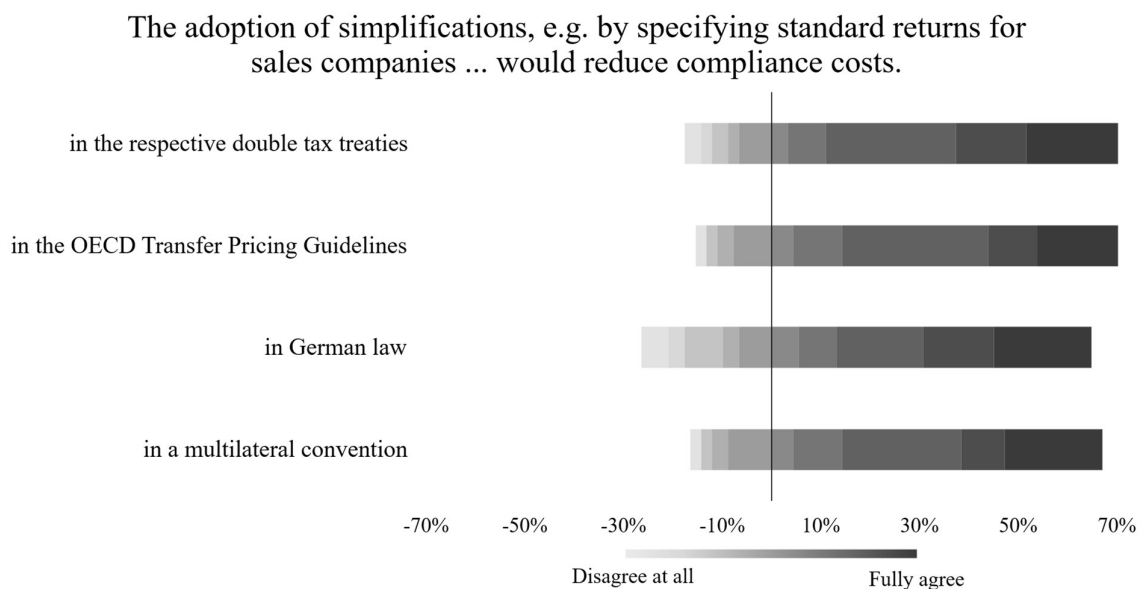


This Figure shows, on a 10-point Likert scale, how respondents perceive the relationship and behaviour of the German tax authority toward their firm or group during transfer pricing tax audits. Source: modified and translated from Greil et al. (2024).

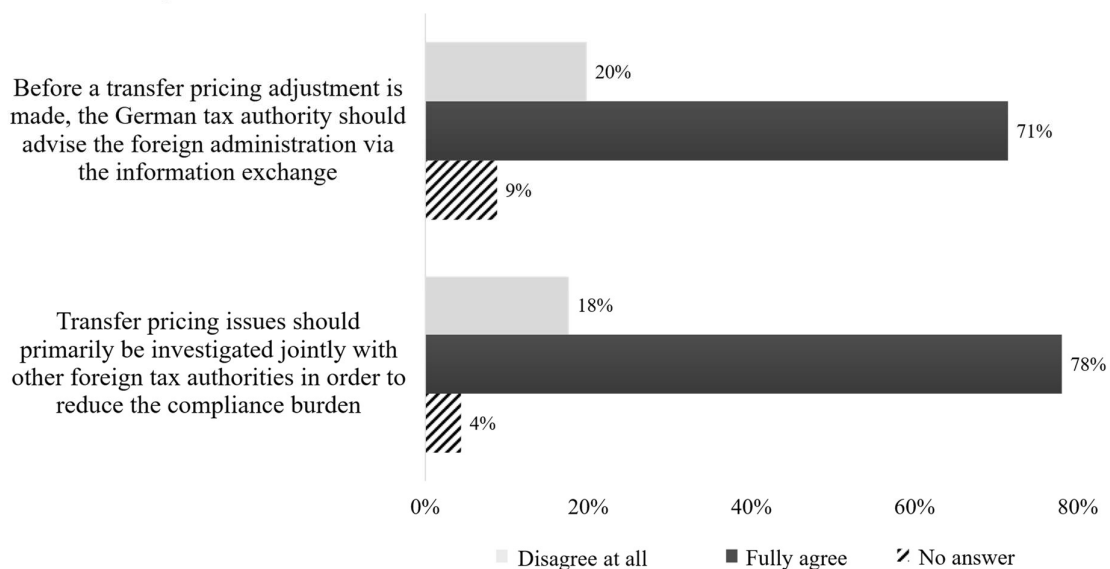
In summary, the participants perceive the German tax authority as treating them respectfully and trustfully, which indicates a good relationship. However, tax audits are perceived as opaque and at times unfair to the firms, which, combined with the high number of audits and transfer pricing adjustments, can reduce tax compliance (Frey, 2003; Isa & Pope, 2010; OECD, 2010; Mendoza et al., 2017).

4.3 Measures for reducing transfer pricing complexity and costs

The answers to our questionnaire show that firms perceive transfer pricing complexity as inhibiting tax compliance. Furthermore, low transparency and low perceived fairness during tax audits increase the perceived compliance costs and might deter compliance. Hence, measures improving tax audits and reducing transfer pricing complexity could be crucial for enhancing compliance and lowering compliance costs. Therefore, we asked the participants to evaluate pertinent measures. The results of these questions are presented in Figures 9, 10 and 11, which display the measures perceived as most promising across the three categories: *Standardisation*, *Cooperation*, and *Transparency*.

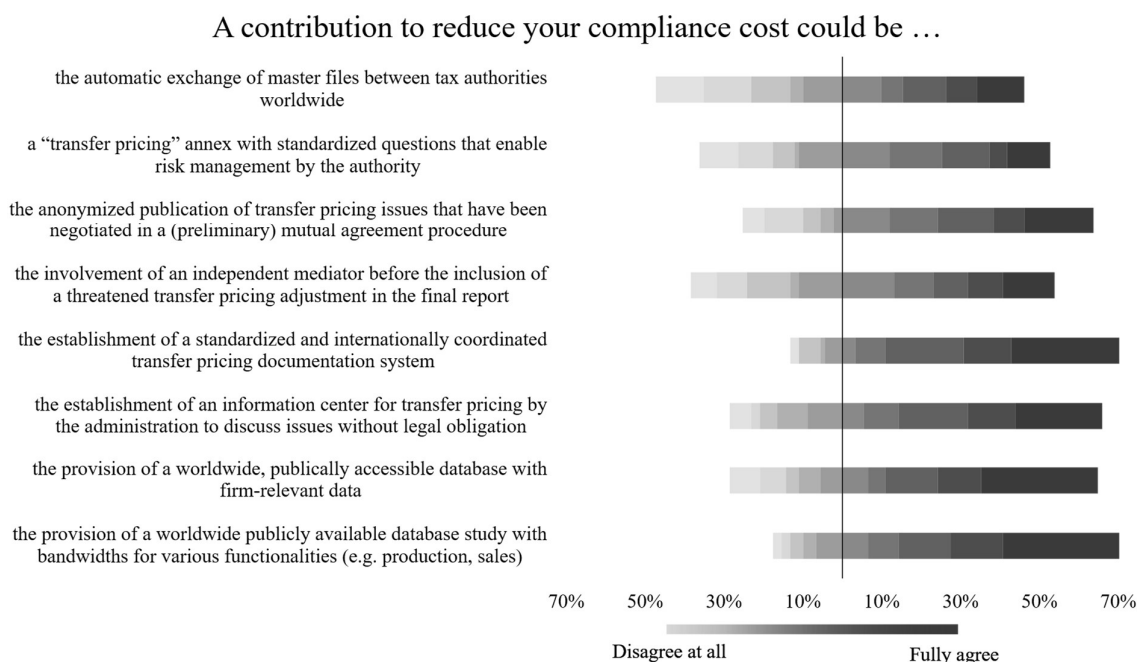
Fig. 9: Relevance of Transfer Pricing Simplifications for Compliance Costs

This Figure shows, on a 10-point Likert scale, how relevant respondents perceive the adoption of transfer pricing simplifications in multilateral and national regulations to be in reducing compliance costs for their firm or group. Source: modified and translated from Greil et al. (2024).

Fig. 10: Cooperation between German and Foreign Tax Authorities in Transfer Pricing Cases

This Figure shows, on a 10-point Likert scale, how relevant respondents perceive cooperation between German and foreign tax authorities in transfer pricing to be in reducing compliance costs for the respondents' firm or group. Source: modified and translated from Greil et al. (2024).

Fig. 11: Measures to Reduce Transfer Pricing Compliance Costs



This Figure shows, on a 10-point Likert scale, the perceived relevance of measures related to transfer pricing to reduce compliance costs for respondents' firms or groups. Source: modified and translated from Greil et al. (2024).

Standardisation

Regarding the first category, standardisation, 78% of the respondents agree that a standardised and globally coordinated documentation system for transfer prices would reduce complexity and compliance costs (see Figure 11). This evidence comports with the theoretical results of Diller and co-authors that transfer pricing harmonisation increases tax revenues, especially in low-tax countries (Diller et al., 2025). Most respondents (53%) answered that an annex of standardised questions for risk management of the tax authorities would contribute to reducing their compliance costs (see Figure 11). In this way, risk management could be standardised and, among other things, used for international risk assessment procedures such as ICAP.

In this vein, standardisation represents a direct means of reducing complexity and the administrative burden of firms and tax authorities, as it reduces double reporting obligations (OECD, 2022a, 2023, 2024b).

Cooperation

The second category is cooperation between tax authorities. To reduce firms' compliance costs, joint transfer pricing audits of the national tax authority and any foreign tax authorities seems highly important, as 78% of the respondents agree with this (see Figure 10). This perspective is also supported by theory, since transparency increases with joint audits, which in turn increases the probability of the detection of tax avoidance (Allingham & Sandmo, 1972), reduces overlapping compliance obligations, and can avoid double taxation due to uncoordinated actions by tax authorities and thus also costly mutual agreement procedures. Conversely, research indicates that the cooperation of tax authorities in bilateral advance pricing agreements can increase compliance costs (De Waegenaere et al., 2007). Researchers should empirically test whether cooperative measures, such as joint tax audits, can enhance trust and reduce compliance costs better than measures of upfront certainty, such as advance tax rulings and agreements. Prior survey evidence indicates that firms see cooperation as essential for reducing information asymmetries and increasing transparency between tax authorities and firms, enhancing tax compliance (Kirchler et al., 2008).

Transparency

The third category combines measures of transparency through information exchange between tax authorities and between tax authorities and firms. The answers to our questions on information exchange indicate that the automatic exchange of firms' master files, already established for Country-by-Country reporting (CbCR), between the authorities could reduce compliance costs (see Figure 11). CbCR is associated with high administrative costs for firms, and, as this regulation is relatively new, only 46% of the respondents perceive that the exchange of master files could reduce compliance costs. Hence, 71% fully agree that the German tax authorities should advise the foreign tax authority via information exchange before a transfer pricing adjustment (see Figure 10). Information exchange can improve the cooperation between tax authorities, which seems more promising for reducing compliance costs than exchanging master files. Furthermore, information exchange can reduce information asymmetries, reducing the risk of double taxation (OECD, 2022a, 2023, 2024b).

Additionally, 64% of the respondents perceive that the anonymised publication of transfer pricing issues from mutual agreement procedures (MAP) could reduce compliance costs (see Figure 11). This evidence is consistent with Petutschnig and Zhang (2023), who find that firms invest more in countries with MAP policy structures.

Regarding transparency between tax authorities and firms in transfer pricing cases, the respondents perceive the provision of standard returns for sales firms in German law (65%), double tax treaties (75%), OECD transfer pricing guidelines (73%), and multilateral conventions (67%) as relevant for reducing compliance costs (see Figure 9). Our sample mainly consists of manufacturers with primarily sales activities, which explains the high relevance of this issue. Figure 11 further confirms the relevance of data for setting transfer prices, as 77% (36% fully) agree that providing a worldwide database with transfer pricing bandwidths for functionalities like production or sales would reduce compliance costs. Additionally, a worldwide database with firm data could lower the firms' compliance costs.

5. CONCLUSIONS

We examine the main drivers of perceived transfer pricing complexity and associated compliance costs and identify three reform channels that respondents perceive as particularly effective in mitigating these burdens.

Standardisation includes worldwide standardised documentation for transfer prices and an annex with risk management questions that could reduce double reporting obligations and therefore compliance costs. Furthermore, *cooperation* between tax authorities through joint transfer pricing audits is perceived as crucial for reducing compliance costs and transfer pricing complexity. Lastly, the respondents see transparency between tax authorities using an automatic exchange of master files as important for cost efficiency. Even more relevant is information exchange before a transfer pricing adjustment is made, as this cooperative approach could also reduce information asymmetries and the risk of double taxation (OECD, 2022a, 2023, 2024b). *Transparency* between tax authorities and firms in the form of information on transfer pricing bandwidths, specification of standard returns, and publicly available firm data is perceived as directly relevant to reducing compliance costs, as well as the anonymised publication of transfer pricing issues from MAPs.

While prior literature investigates alternative allocation methods to the arm's length principle as a means of reducing transfer pricing complexity, we contribute by identifying avenues to mitigate complexity arising from the arm's length principle. The identified measures are perceived as capable of reducing complexity and information asymmetries, enhancing transparency, and lowering compliance costs, which may, in turn, strengthen tax compliance. Although we do not empirically establish the causal effectiveness of these measures, our survey evidence documents the relationship between perceived transfer pricing complexity, compliance costs, and tax compliance. The measures identified in this study provide a survey-based foundation for future empirical research to test the effectiveness of targeted simplification strategies.

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7. APPENDIX 1

Table 1: Sample Selection

Sample	Number of observations
All answers	201
Less: incomplete answers	109
Less: completion time less than 10 and more than 60 minutes	91

This Table shows the number of observations after including only completed answers and those that were completed in at least 10 minutes and a maximum of 60 minutes. The final sample includes 91 observations.

Table 2: Definition of Variables

Variables	Definition	Values
Corporation	Indicator variable taking the value of one if the legal form of the respondent's firm is a corporation and zero otherwise.	Binary
Employees Average	The exact number of employees/the average value of its range selected.	Numeric
Female	Indicator variable taking the value of one if the respondent's gender is female and zero otherwise.	Binary
Foreign Income Average	The exact number of foreign income of the firm in the year 2021/the average value of its range selected.	Numeric
Income Average	The exact number of income of the firm in the year 2021/the average value of its range selected.	Numeric
Manager	Indicator variable taking the value of one if the respondent holds at least a position at manager level and zero otherwise.	Binary
Partnership	Indicator variable taking the value of one if the legal form of the respondent's firm is a partnership or mixed form* and zero otherwise.	Binary
Tax Department	Indicator variable taking the value of one if the respondent's firm has its own tax department and zero otherwise.	Binary
Tax Employees Average	The exact number of tax employees/the average value of its range selected.	Numeric

This Table presents the definition of variables used in our study. * Mixed forms are a special legal form in Germany that combines characteristics of partnerships and corporations such as GmbH & Co. KG and are taxed like partnerships.

Table 3: Summary Statistics of Sample

Variables	N	Mean	SD	Min	25%	50%	75%	Max
Corporation	91	0.71	0.45	0	0	1	1	1
Employees Average	91	7,038.46	3,605.41	25	5,000	10,000	10,000	10,000
Female	81	0.27	0.45	0	0	0	1	1
Foreign Income Average	82	67,756,097.56	42,503,104.02	3,000,000	15,500,000	100,000,000	100,000,000	100,000,000
Income Average	90	604,166,666.67	245,214,020.26	125,000,000	500,000,000	750,000,000	750,000,000	750,000,000
Male	81	0.73	0.45	0	0	1	1	1
Manager	83	0.77	0.42	0	1	1	1	1
Partnership	91	0.29	0.45	0	0	0	1	1
Tax Advisor	69	0.03	0.17	0	0	0	0	1
Tax Department	69	0.97	0.17	0	1	1	1	1
Tax Employees Average	86	16.10	16.46	3	3	8	15.50	50

The Table presents the summary statistics for our sample.

Table 4: Demographic Information of the Sample

Category	Frequency	Percent	Cum.
Panel A: Firm Information			
Legal Form			
Corporation	65	71.43	71.43
Mixed Form	19	20.88	92.31
Partnership	7	7.69	100
Group Member			
Parent Firm	58	63.74	63.74
Subgroup Parent Firm	10	10.99	74.73
Permanent Establishment/Subsidiary	16	17.58	92.31

Independent Firm	7	7.69	100
Tax Department			
Own Tax Department	67	73.63	73.63
Tax Advisors	2	2.20	75.83
No Answer	22	24.18	100
Income (EUR million)			
≤ 250	17	18.68	18.68
> 250-750	10	10.99	29.67
> 750	63	69.23	98.90
No Answer	1	1.10	100
Foreign Income (EUR million)			
≤ 6	14	15.38	15.38
> 6-25	13	14.29	29.67
> 25-50	1	1.10	30.77
> 50-100	5	5.49	36,26
> 100	49	53.85	90.11
No Answer	9	9.89	100
Employees			
0-50	1	1.10	1.10
50-249	4	4.40	5.50
250-499	5	5.49	10.99
500-999	4	4.40	15.39
1.000-9.999	27	29.67	45.06
> 10.000	50	54.95	100
Tax Employees			
1-5	32	35.16	35.16
6-10	17	18.68	53.84
11-20	16	17.58	71.42

21-50	10	10.99	82.41
> 50	11	12.09	94.50
No Answer	5	5.49	100
Transfer Pricing Employees			
0	1	1.10	1.10
1-5	52	57.14	58.24
6-10	7	7.69	65.93
> 10	7	7.69	73.63
No Answer	24	26.37	100
Panel B: Information on the Respondents			
Gender			
Female	22	24.18	24.18
Male	59	64.84	89.02
No Answer	10	10.99	100
Position			
CEO	1	1.10	1.10
CFO	7	7.69	8.79
COO	1	1.10	9.89
Director	1	1.10	10.99
Head of	54	59.34	70.33
Manager	1	1.10	71.43
Tax Employee	15	16.48	87.91
No Answer	11	12.09	100

This Table shows the demographic information of the sample. Panel A includes the demographic information of the firms the respondents work for, while Panel B focuses on the respondents' demographic attributes.

Table 5: Industry of the Firms within the Sample Compared to All German Firms

Industry	Sample	Percentage of large German firms
Manufacturing industry	79.3%	28.5%
<i>Mechanical engineering</i>	41.6%	6.1%
<i>Chemical industry</i>	11.9%	1.8%
<i>Automotive</i>	9.9%	2.5%
<i>Further manufacturing industry</i>	8.9%	1.8%
<i>Pharmaceutical industry</i>	5.0%	0.8%
<i>Steel industry</i>	2.0%	0.5%
Provision of other services	3.0%	2.7%
Energy industry	3.0%	1.4%
Financial and insurance services	3.0%	4.7%
Other business services	1.0%	7.9%
Trade and commerce	1.0%	11.8%
Construction	1.0%	2.6%
Real estate and housing	1.0%	0.6%
Health and social work	1.0%	19.5%
Transportation and storage	1.0%	4.5%

This Table shows the industry classification of the firms within the sample compared to all German firms. The mechanical engineering industry, automotive industry, chemical industry, pharmaceutical industry, steel industry, and further manufacturing industries are components of the overall manufacturing industry. The sum of the percentages is less than 100% because the remaining respondents answered that their firm is part of a different industry that is not specified in the list above. To compare the industry data of the sample with data on the overall German firms, we include industry data on large German firms of the year 2021 in the right column; see Statistisches Bundesamt (2023). GENESIS-Online, Destatis (accessed on 6 October 2023).

8. APPENDIX 2

Survey Questionnaire

[Section 3 explains the survey structure. The survey has seven parts and includes all questions relevant to the analyses. The survey was conducted in German. Answers to most of the questions are shown in the Figures in the text. The authors will provide the German version upon request.]

Survey introduction:

Thank you very much for your interest in our survey on tax compliance and transfer pricing. The aim of this survey is to find out how your company is affected by transfer pricing regulations. The constantly changing regulatory framework in this area is leading to increasingly complex requirements, including a growing documentation burden and increasing tax risks. This increases the demands placed on your company when dealing with tax issues. Your participation in this survey is important to gain insights into how these developments are affecting companies and the economy in this still largely unexplored area. Our study is significant not only for the economy but also for public administration and politics and is intended to improve the regulatory environment in Germany.

The results will be made available to the public after the study is completed.

The questionnaire is divided into seven sections. The survey is completely anonymous. It is not possible to draw any conclusions about you or the company you work for. We would be grateful if you could take about 20 minutes to answer our questions.

Thank you very much for your participation!

Questionnaire

Section 1: Firm Characteristics

1. What is the legal form of your firm?
 2. In which industry does your firm operate?
 3. Does your firm belong to a group of firms?
 4. Does your group/firm have foreign locations (e.g. subsidiaries or permanent establishments)?
 - If yes: What is the volume of your total profit generated abroad?
 5. How many employees subject to social security contributions (in full-time equivalents) does your group/firm employ worldwide? Please state the exact number.
 6. Does your group/firm have its own tax department?
 - If yes: Which of the following intervals corresponds most closely to the number of employees (in fulltime equivalents) working in the tax department of your group/firm?
 - If no: Who mainly handles your tax affairs?
 - 7a. In your opinion, how often have transfer pricing issues of your group/firm been addressed by the German tax authorities in tax audits in the last 5 years?
 - 7b. In your opinion, how often have transfer pricing issues concerning your group/firm been addressed by the German tax authorities in tax audits in the last 10 years?
 - 7c. Are transfer pricing issues of your group/firm taken up more frequently by foreign tax authorities than by the German tax authorities?
 - If yes: In which countries are transfer pricing issues taken up by tax authorities more often than by the German tax authorities?
 8. If yes: How many people (staff of your group/firm) do you employ specifically in the transfer pricing area?
 9. If yes: Who determines the compliance strategy in your group regarding transfer pricing issues?
 10. Please enter the annual turnover of your group/firm in 2021.
 11. How much EUR does your group/firm spend annually on transfer pricing advice from external third parties?
 12. How much EUR does your group/firm spend itself (apart from the costs for advice from third parties) annually on the management of transfer pricing issues (personnel and material costs)?
-

Section 2: Compliance

13. To what extent do you agree with the following statements? [as noted, see Figures in text for responses]

Section 3: Supporting Compliance

14. The existence of the following regulations is important for deciding how much emphasis your group/firm places on tax compliance.
15. To what extent do you agree with the following statements?
16. You would change your compliance strategy if you knew that other groups/firms usually ...

Section 4: Compliance in Transfer Pricing Matters

17. To what extent do you agree with the following statements?

Section 5: Tax-related Administrative Expenses

18. The German tax administration ...
19. To what extent do you agree with the following statements?

Section 6: Improvements in the Area of Transfer Pricing

20. The inclusion of simplifications, e.g. by specifying standard returns for sales firms ...
21. To what extent do you agree with the following statements?
22. A contribution to reducing your compliance costs could be ...

Section 7: Personal Details and Responsibilities in the Firms

23. Optional: Are you in a management position?
24. Optional: Do you have tax knowledge?
25. Optional: What position do you hold?
-

-
26. Optional: Please enter your age.
 27. Optional: Please enter your gender.
 28. Optional: Are your remuneration components dependent on the group tax rate/corporate tax rate of your group/firm?
 29. Optional: Are your remuneration components dependent on whether legal remedies, such as an objection or application for a mutual agreement procedure, had to be filed in relation to tax obligations?
 30. Optional: Are your remuneration components dependent on whether a compliance strategy is implemented in your group/firm?
 31. Optional: Do you have any further comments on the topic of tax compliance and transfer pricing?
-

The Bonfire of the Privileges?

Robin Woellner* and Andrew Maples**

Abstract

Two key legal common law privileges – legal professional privilege and the privilege against self-incrimination – have existed for centuries and operated in our jurisprudence as pillars of essential legal protection for taxpayers and others. Nevertheless, these privileges have recently been under attack. While the erosion of legal professional privilege has arisen through the lack of clear, targeted legislation, the erosion of the privilege against self-incrimination has been driven primarily by the flood of federal Acts which may be seen cumulatively as impliedly abrogating the privilege. The article proposes a similar ‘remedy’ (legislative reform) to preserve each privilege – albeit a (very different) form of legislative reform for each.

Keywords: privilege, legal professional privilege, privilege against self-incrimination

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1. INTRODUCTION

Over the centuries, the common law has developed and refined a range of doctrines designed to ensure that citizens have basic liberties and rights. Two of the more significant doctrines are legal professional privilege and the privilege against self-incrimination.

Legal professional privilege (LPP) in general terms protects confidential communication between a lawyer and their client for the purpose of obtaining legal advice or assistance. It has been described as existing to serve the extremely important public interest in the administration of justice by encouraging full and frank disclosure by clients to their lawyers, thus enabling the lawyer to provide accurate advice. The privilege against self-incrimination (PASI) protects people suspected of wrongdoing from being forced to incriminate themselves.¹

The advent of technology has revolutionised the operation of the privileges, albeit in different ways. In relation to LPP, overall it has operated appropriately and effectively for centuries – providing society and citizens with essential protection. However, in recent times, the Australian Taxation Office (ATO) has taken a more aggressive approach to what it sees as dubious claims for privilege and has successfully challenged some claims for LPP.

On the other hand, PASI protects a person from being required to incriminate themselves. It has been described among other things as ‘a cardinal principle of our system of justice’² and ‘a bulwark of liberty’³ which is ‘fundamental to a civilised legal system’.⁴ PASI is a basic and substantive common law right, not merely a rule of evidence.

Clearly, the two key legal privileges offer vital protection to citizens, and in light of their positive contributions, one might be forgiven for assuming that they would enjoy strong ongoing support.

However, recently, both privileges have been under challenge. The focus on LPP has followed revelations of alleged misuse of the privilege. In the case of PASI, it is well established that the privilege is not absolute, and in the absence of legislative or other protection, legislation can limit or abrogate PASI where the legislation expresses a clear intention to do so.⁵

¹ The basic doctrinal principles of the privileges have been examined in detail in previous articles by one of the present authors. For further information see, eg, Robin Woellner and Michael Bersten, ‘Legal Professional Privilege in the Australian Tax System: Back to the Future for Law Reform?’ (2022) 28 *James Cook University Law Review* 19 (‘Legal Professional Privilege’); Robin Woellner and Michael Bersten, ‘Quo Vadis Legal Professional Privilege – Wavering in the Multiverse?’ (2023) 38(4) *Australian Tax Forum* 543 (‘Quo Vadis’).

² *Sorby v Commonwealth* (1983) 152 CLR 281, 294 (per Gibbs CJ) (‘*Sorby*’) and quoted in the report Queensland Law Reform Commission (Justice RG Atkinson, chair) (QLRC), *The Abrogation of the Privilege Against Self-Incrimination* (Report No 59, 2004) [1.6].

³ *Pyneboard Pty Ltd v Trade Practices Commission* (1983) 152 CLR 328, 340 (per Mason ACJ, Wilson and Dawson JJ) (‘*Pyneboard*’), referring to this characterisation as the view taken in one of the two competing strands of authority discussed in the judgment; quoted in QLRC, above n 2, [1.6].

⁴ *Accident Insurance Mutual Holdings Ltd v McFadden* (1993) 31 NSWLR 412, 420 (per Kirby P) quoted in QLRC, above n 2, [1.6].

⁵ QLRC, above n 2, [7.1], citing *Sorby*, above n 2, 289-290 (per Gibbs CJ).

In what McHugh J in *Malika Holdings Pty Ltd v Stretton (Malika)*⁶ described as the advent of the ‘regulatory state’, legislatures have enthusiastically taken up the opportunity to pass abrogating legislation, and the tendency for courts to interpret legislation as intended to abrogate or limit the privilege has become much more commonplace. That is, there has been a tendency for courts to favour ‘economic efficiency’ arguments. These come in the form of ever-increasing claims by government departments for unlimited access to information, on the basis that otherwise (it is claimed), the agency will not be able to operate effectively or, sometimes, would not be able to operate at all. As discussed below, these economic efficiency arguments – all too often without supporting evidence – have been allowed to override the countervailing values of human dignity, privacy, and freedom protected by the privilege, with the result that the scope of the privileges and the protection provided by the privileges have shrunk commensurately. The authors regard this trend as most unfortunate and damaging.

As a result, the scope of the protection afforded by the two privileges is now but a fraction of its former coverage. It is always a matter of striking a difficult balance, but have we got the balance wrong? Are we perhaps stumbling into a less protective and caring society? Or are we perhaps seeing early sparks from the Bonfire of the Privileges? Indeed, the situation provides some interesting echoes to Tom Wolfe’s 1980s classic work of fiction, *The Bonfire of the Vanities*.⁷

While both privileges are developments of the common law and offer vital protection to citizens, their development, rules and the current issues with each differ. However, despite these forensic differences between the privileges, and consequential problems with each, the authors propose a similar ‘remedy’ for each privilege – albeit a (very different) form of legislative reform tailored to the needs of each privilege.

It is important to note that this article was written against the backdrop of an ongoing joint review by the Attorney-General’s Department and Australian Treasury into the use of LPP in Commonwealth investigations, originally announced on 6 August 2023. The Attorney-General’s Department and Australian Treasury initially engaged with approximately 100 stakeholders on the review. In December 2024, the document *Review of the Use of Legal Professional Privilege in Commonwealth Investigations*⁸ (the 2024 Discussion Paper) was released, designed to present and test the key issues identified through the initial consultation and research undertaken to inform the review. Submissions on the discussion document closed on 28 February 2025. It was hoped that feedback received would lead to the public release in mid-2025 of a second and final Paper setting out possible reform options, and that this would prove more successful

⁶ *Malika Holdings Pty Ltd v Stretton* (2001) 204 CLR 290, 299 (per McHugh J) (*‘Malika’*).

⁷ The historical ‘Bonfire of the Vanities’ refers to the 1497 actions in Florence, Italy of the Dominican priest Girolamo Savonarola, who ordered the burning of a wide range of objects he considered sinful (vain), including books, art and mirrors. The bestselling book by Tom Wolfe, *The Bonfire of the Vanities* (Farrar, Straus and Giroux, 1987), is a biting socio-political satire set in New York chronicling the fall through lies and avarice of a successful bond trader who sees himself as a ‘Master of the Universe’ and the corruption of the resultant police investigation. At a level of abstraction, this article bears echoes to Tom Wolfe’s book. While this article may not have the ‘Bonfire’ drama of a fatal heart attack in an expensive French restaurant, with a haughty *maître d’* looking on, the modern damage from the erosion of the privileges is real and significant.

⁸ Attorney-General’s Department and Australian Treasury, *Review of the Use of Legal Professional Privilege in Commonwealth Investigations: Discussion Paper* (2024).

than the numerous earlier reviews and would not simply join prior reports in mouldering on dusty unused bookshelves. Unfortunately, as of March 2026, the final Paper had not been released, and when (or if) it is ultimately completed and released, it seems destined to follow the fate of previous reviews.⁹

2. LEGAL PROFESSIONAL PRIVILEGE: THE DOCTRINAL BACKGROUND

2.1 What is legal professional privilege?¹⁰

As noted, given the extensive analysis of LPP in prior articles, this article does not repeat those basic principles; rather it focuses more on PASI, though it is necessary to refer to some key LPP issues to provide context.

The judicial policy underlying LPP is to encourage clients to seek legal advice and to disclose fully all relevant circumstances to the lawyer, thus enabling the lawyer to provide informed and appropriate advice,¹¹ the concern being that the client might be unwilling to provide full and accurate information if they thought that their discussions with their legal adviser could subsequently be made public.¹² However, LPP only applies where the dominant purpose¹³ for creating the confidential communication was either to obtain legal advice¹⁴ from a lawyer (whether in the private or public sector, or in-house)¹⁵ acting in that capacity,¹⁶ or for use in pending or reasonably contemplated litigation.¹⁷ LPP belongs to the client, and the adviser must (generally) claim the privilege on behalf of the client.¹⁸ Significantly, LPP can be lost by express¹⁹ or implied²⁰ waiver.

Over the centuries, the courts have carefully developed and refined common law rules to resolve the inherent tension between the acknowledged need for investigators and decision-makers to have access to relevant information (albeit that the need for particular information should perhaps be more carefully tested than seems to be the case

⁹ See, eg, QLRC, above n 2; Australian Law Reform Commission (David Weisbrot, President) (ALRC), *Privilege in Perspective: Client Legal Privilege in Federal Investigations* (Report No 107, 2008) ('*Privilege in Perspective*').

¹⁰ For a more detailed legal treatment of LPP, see Woellner and Bersten, 'Legal Professional Privilege', above n 1.

¹¹ See the discussion of the judicial rationale for LPP in *Commissioner of Australian Federal Police v Propend Finance Pty Ltd* (1997) 188 CLR 501, 551-552 (per McHugh J), 584 (per Kirby J) ('*Propend*').

¹² *Glencore International AG v Federal Commissioner of Taxation* (2019) 265 CLR 646, 661-662 ('*Glencore*').

¹³ As to the test being for the dominant purpose, see *Esso Australia Resources Ltd v Federal Commissioner of Taxation* (1999) 201 CLR 49 ('*Esso*'). The meaning of 'dominant' has been explained as the 'ruling, prevailing, paramount or most influential purpose': see for example *12 Years Juice Foods Australia Pty Ltd v Federal Commissioner of Taxation* [2015] FCA 741, [13] (Edmonds J) quoting *Federal Commissioner of Taxation v Pratt Holdings Pty Ltd* [2005] FCA 1247, [30].

¹⁴ 'Legal advice' extends beyond merely telling the client what the law is and extends to providing advice 'as to what a party should prudently or sensibly do in the relevant legal context': *AWB Ltd v Cole (No 5)* 155 FCR 30, [44] ('*AWB (No 5)*').

¹⁵ *Waterford v Commonwealth* (1987) 163 CLR 54.

¹⁶ *Lane v Admedus Regen Pty Ltd* [2016] FCA 864, [20] (McKerracher J), citing *Archer Capital 4A Pty Ltd as trustee for the Archer Capital Trust 4A v Sage Group plc (No 2)* [2013] FCA 1098, [72]-[73].

¹⁷ Woellner and Bersten, 'Legal Professional Privilege', above n 1; *Glencore*, above n 12.

¹⁸ *Propend*, above n 11, 510; *Attorney-General (NT) v Maurice* (1986) 65 ALR 230, 235 (per Woodward J).

¹⁹ *Mann v Carnell* (1999) 201 CLR 1. *Mann* is the seminal authority on waiver.

²⁰ *Ibid.* For examples, see *Kirby v Centro Properties Ltd (No 2)* [2012] FCA 70; *AWB (No 5)*, above n 14, [128]-[163].

to date), and the need to protect confidential legal advice (and litigation-related materials) to promote the public interest in the proper administration of justice.²¹

2.2 The application of legal professional privilege to non-curial cases

In 1983 the courts extended LPP to tax investigations and other non-curial cases.²² It is now well established by decisions such as *Baker v Campbell (Baker)*²³ and *Glencore*,²⁴ that LPP is a substantive right rather than a mere rule of evidence or procedure in curial proceedings. Indeed, former Chief Justice French characterised it as a constitutional right.²⁵

However, (to date) the courts have not developed a parallel, coherent and effective system for dealing with privilege claims and disputes in such cases. This has resulted in the practical exercise of compulsory investigation powers becoming a matter for the administrative policy of Commonwealth agencies and the negotiation of guidelines with professional bodies, leaving an unfortunate gap that could most easily and appropriately be filled with an (updated) Australian Law Reform Commission (ALRC) recommendation.

2.3 The genesis of the ALRC 2008 Report

Notwithstanding its long history, disquiet about the claiming of LPP in relation to inquiries from a Royal Commission concerning the Australian Wheat Board led the then Attorney-General in late 2007 to refer to the ALRC the question of the application of LPP in respect of Commonwealth investigations.

The resulting ALRC Report²⁶ identified the practice and procedure problems that have bedevilled LPP, and the Report deserves close attention, particularly as the ALRC advisory panel comprised federal judges,²⁷ leading taxation experts and senior Commonwealth officers from the Commonwealth Director of Public Prosecutions (CDPP) and ATO.

The ALRC went on to put forward a number of specific recommendations,²⁸ with the first recommendation being for the federal government to effectively codify the law and practice of the privilege.²⁹ However, as of the date of writing, the recommendations of ALRC Report 107 had not been implemented, and it seems likely that, as with so many other reports, the valuable insights in the report are doomed to gather dust on government shelves.

²¹ *Propend*, above n 11.

²² The reference to 'non-curial' refers to matters arising outside a court (those within court processes being 'curial' matters) such as claiming LPP as a valid reason for resisting a valid exercise of the compulsory powers of the Commissioner of Taxation to produce documents or information or to answer a question when subject to examination.

²³ *Baker v Campbell* (1983) 153 CLR 52.

²⁴ The long and often contested history of LPP has been well covered in the decision of the High Court in *Glencore*, above n 12, and other materials such as the Australian Law Reform Commission (ALRC) Report, *Privilege in Perspective*, above n 9, itself.

²⁵ *Momcilovic v The Queen* (2011) 245 CLR 1, [43].

²⁶ ALRC, *Privilege in Perspective*, above n 9.

²⁷ Including then Justice French and then Justice Kiefel.

²⁸ ALRC, *Privilege in Perspective*, above n 9, 9-23.

²⁹ *Ibid*, Recommendations 5-1 to 5-3, 6-2 to 6-3.

3. IS THE LEGAL PROFESSIONAL PRIVILEGE SYSTEM FAILING? CURRENT AND FUTURE CHALLENGES

3.1 Background

To date, the courts and other key players, consistent with their responsibilities, have sought to do their best in ‘managing’ the problems thrown up by LPP. However, the courts can only decide the cases that come before them, and while cases on LPP issues continue to arise regularly, they generally concern practical and precise questions as to the boundaries of the privilege in a particular context, rather than more fundamental issues. Accordingly, the authors believe the only viable option to resolve the current (and future) problems is the introduction of comprehensive and carefully drafted federal legislation setting out the rules for claiming the LPP and dealing separately with the different nature of disputes.

Significantly, the High Court has aligned common law LPP in non-curial settings to the position under the privilege provisions in the *Evidence Act 1995* (Cth) (*Evidence Act*) by applying the legislative test of a ‘dominant purpose’,³⁰ rather than the ‘sole purpose’ test that applied at common law.³¹ In that sense, the courts have created a parallel (indeed duplicate) set of Rules for claiming the privilege at common law and under the *Evidence Act*.³² However, this parallel universe splinters when it comes to applying practice and procedure to situations involving curial versus non-curial privilege claims, because different agencies invariably apply differing administrative policies and procedures in dealing with the privilege in these contexts, creating a splintered privilege ‘universe’.³³ Against this background, it is important to examine why LPP in non-curial cases is the object of so much continuing tension and debate – particularly in relation to tax.

3.2 The alleged misuse of legal professional privilege to improperly resist ATO investigation

Clearly, access to relevant information remains a legitimate and key aspect of tax administration, and controversies arise regularly over information shortfalls, with the ATO concerned in recent years by its perception that some multinational enterprises (especially tech giants, among others) and their advisers have misused claims for LPP to create an artificial barrier in order to falsely justify refusing to comply with valid ATO requests for the provision of crucial information in a timely manner.

³⁰ *Esso*, above n 13.

³¹ *Grant v Downs* (1976) 135 CLR 674. Interestingly, the sole purpose test remains the applicable test for the ATO accountants and corporate board advice concessions: see ATO, ‘Limits to Our Formal Powers’ (last updated 1 May 2024) <<https://www.ato.gov.au/about-ato/commitments-and-reporting/information-and-privacy/information-management/our-approach-to-information-gathering/limits-to-our-formal-powers>> (accessed 31 May 2026).

³² Hon Justice TF Bathurst, Chief Justice of NSW, ‘Lawyer-Client Privilege in Litigation’ (College of Law Judges’ Series, 26 February 2020).

³³ With apologies to the Marvel Studios 2022 blockbuster *Doctor Strange in the Multiverse of Madness*: our thanks to Michael Bersten for this illuminating insight. As also noted by a reviewer the concept of the ‘multiverse’ has also been alluded to in popular culture (for example, *Spider-Man: No Way Home* (Columbia Pictures, Marvel Studios and Pascal Pictures, 2021) and *Everything Everywhere All at Once* (A24 Films, Gozie AGBO, Ley Line Entertainment, Year of the Rat and IAC Films, 2022)).

The issue ignited in 2016 when, in what has colloquially come to be known as the ‘enough is enough speech’, before a Senate Estimates Committee in February 2016, the Commissioner said:

Their clear tactic is to delay and obstruct. They game the system ... These companies have pushed the envelope on reasonableness. They play games. They string us along. They believe we can be stooged. However, enough is enough and no more of this.³⁴

It is not hard to understand the ATO’s chagrin. Again, in 2018 the ATO complained that it was: ‘seeing claims of privilege over thousands or even tens of thousands of documents’,³⁵ but when it ultimately obtained these documents ‘sometimes (presumably inadvertently) even in the same production process (for example, as attachments to other emails)’³⁶ the documents were in the ATO’s view ‘clearly never privileged’³⁷ and the ATO believed it was ‘seeing LPP being claimed using both industrial processes and on an industrial scale’.³⁸

3.3 The challenges of digital technology

In relation to the issues identified in section 3.2, not only has the use of electronic communication media seen the volume of allegedly privileged communications rise dramatically but the range of formats in which privileged communications may be recorded has also expanded, including collaboration software such as Zoom.³⁹ These developments raise further and new challenges for LPP, for example, ‘Can LPP be properly maintained when collaboration software is likely being used throughout the day for mixed purposes, including legal and non-legal purposes? Is LPP lost if various people have access to that software, including third party consultants?’⁴⁰

Without a coherent and strategic approach, there is a real risk that the digital world will tie up the courts, agencies (including the ATO) and LPP claimants in ever longer and costlier privilege claim exercises.

3.4 Grappling with the privilege multiverse

In the absence of a legislatively prescribed procedure for the determination of claims for LPP in non-curial settings, different procedures may be applied by various

³⁴ Senate, Economics Legislation Committee, *Additional Estimates 2015-16: Report to the Senate* (March 2016) [1.38], quoted in Neil Chenoweth, ‘ATO Head Chris Jordan’s Journey from Pariah to Unlikely Hero’, *Australian Financial Review* (7 July 2016) <<https://www.afr.com/policy/tax-and-super/ato-head-chris-jordans-journey-from-pariah-to-unlikely-hero-20160613-gphob4>>.

³⁵ ATO, *National Tax Liaison Group Key Messages: Attachment A Supplementary Information* (30 November 2018) 10. The ATO added: ‘This has led to serious consideration of the mechanisms to test LPP and/or the consequences for reckless claims’.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.* The 2024 Discussion Paper observes that ‘the large market segment of the Australian Taxation Office, as at the preparation of this paper, has around 27 active cases with unresolved LPP claims totalling around 133,000 claims. Approximately 75% of these active cases involve claims made over a year ago’: Attorney-General’s Department and Australian Treasury, above n 8, 6.

³⁹ Online tools include Zoom, Microsoft Teams and other video sharing systems.

⁴⁰ See Christine Wong and Brendan Donohue, ‘Should Your Business Worry About Microsoft Teams, Slack (etc) and Legal Professional Privilege? Answer: It Depends’, *Lexology* (28 October 2022) <<https://www.lexology.com/library/detail.aspx?g=7dfef7ce-5647-472a-b081-ed9e71c96cd3>>. See also Woellner and Bersten, ‘Quo Vadis’, above n 1.

administrative bodies such as the ATO, thus creating a parallel universe or splintered universe with different agencies and courts having their own unique policies and procedures for dealing with privilege claims.⁴¹ In the federal arena, a multiverse may also be created where privilege claims in a non-curial setting are governed by the common law and not the *Evidence Act*.⁴² These divergent approaches create uncertainty and increased costs, and are clearly sub-optimal.

In addition, as there is no mandated procedure tailored for dealing with the privilege claims, the burden falls on the parties to negotiate a sensible process (such as sampling from a large volume of documents as in the *PwC* case⁴³) and to seek judicial approval of that process. Otherwise they run the risk of dealing with the privilege in a way that may involve disputes over an unwieldy number of documents.

3.5 Legal professional privilege and multi-disciplinary firms

The rise and increase of multi-disciplinary professional firms that provide both legal and non-legal advice creates new challenges for the courts. As the 2024 Discussion Paper observed, clients may seek advice from several professional advisers (lawyers, accountants and consultants) in relation to a single issue. This ‘can result in the creation of communications that have a range of purposes, which can make it more difficult to assess whether the dominant purpose test for LPP is met’.⁴⁴

In this context, the most significant recent decision concerning LPP in that context is the *PwC* case,⁴⁵ where a range of legal and other advice was provided by a multi-disciplinary firm. In that case, the taxpayer declined to produce some 44,000 communications sought by the ATO under a section 353-10 notice, arguing that they were all protected by LPP, an assertion challenged by the ATO in respect of 15,500 of the communications. In the Federal Court, Moshinsky J took the very practical step of examining only a small sample of some 116 (less than 1 per cent) of the documents to determine which communications, if any, were privileged.⁴⁶ His Honour concluded that 49 of the documents were privileged, six were partly privileged, and 61 were not privileged. Moshinsky J also found that several documents had been prepared for the purpose of artificially attracting privilege.

The *PwC* decision demonstrates that the courts currently can, in some circumstances, deal effectively with claims of LPP in relation to multi-disciplinary firms and large volumes of digital communications within existing judicial principles, *provided* the

⁴¹ Bathurst, above n 32, [16].

⁴² Ibid [14].

⁴³ *Federal Commissioner of Taxation v PricewaterhouseCoopers* (2022) 114 ATR 335, [931] (Moshinsky J) (*‘PwC’*).

⁴⁴ Attorney-General’s Department and Australian Treasury, above n 8, 7.

⁴⁵ *PwC*, above n 43. The decision and its implications are discussed more fully in Woellner and Bersten, ‘Quo Vadis’, above n 1; see also Paul Latimer, ‘Legal Professional Privilege and the Fight Against Corporate Misconduct’ (2025) 56(1) *Australian Bar Review* 12.

⁴⁶ A similar approach was taken in *CUB Australia Holding Pty Ltd v Federal Commissioner of Taxation* (2021) 287 FCR 71. While acknowledging the sampling of communications can reduce volume related pressures, the 2024 Discussion Paper comments that ‘we have heard that there are limitations in the practice of selecting sample communications for the court to consider. One reason for this is that one party (the person claiming privilege) has access to all of the communications in dispute and the other (the Commonwealth agency) does not and may be required to select a sample without seeing the communications’. See Attorney-General’s Department and Australian Treasury, above n 8, 10 (footnote omitted).

parties agree to a scaled-down dispute process involving a sample of documents. However, it is also clear that if the parties cannot agree on such a process (especially in an increasingly digital world where there are large volumes of documents, both physical and increasingly digital), then the result may be that in a high-volume document case, the dispute process will quickly become unwieldy.⁴⁷ Indeed, in terms of the *PwC* case the firm chose to seek a declaration from the Federal Court in respect of an agreed sample of documents. In such a context, several questions arise:

[W]hat would have happened in the absence of agreement as to the sample? Would an application be made to the court in respect of all documents? Would the determination of Privilege arise in the defence of a prosecution for non-compliance with the Commissioner's exercise of power such as to produce documents? The answer is unclear.⁴⁸

4. ADDRESSING CURRENT ISSUES WITH LEGAL PROFESSIONAL PRIVILEGE

Some options to address the issues raised in this article are outlined below.

4.1 Procedures for making non-curial privilege claims

As noted, there is currently no procedure expressly created by legislation or court rules to judicially test non-curial privilege claims and accordingly, privilege claimants must rely on generally available procedures such as seeking a declaration, as in the *PwC* case.

However, there is a solution ready to hand. The ALRC in its 2008 Report recommended an approach, noting that the Federal Court has a longstanding legislatively mandated scheme for dealing with LPP in the judicial context – set out in the *Evidence Act* and procedures under the *Federal Court Act* and Rules.⁴⁹ In particular, Part 20 of the *Federal Court Rules* (FCR 20) sets out a code for discovery that relevantly requires the party or (more usually) their solicitor to file and serve an affidavit with a list of the documents over which LPP is claimed and verified, and the Court can require legal practitioners to lodge an affidavit certifying that the privilege claims made are proper and reasonable.

In the event of a dispute as to LPP in discovery or as to the admissibility of evidence in federal proceedings to which the *Evidence Act* applies,⁵⁰ the Act codifies the circumstances in which a party can lead evidence of communications for which privilege is claimed.⁵¹ Of significance to this article, the 2008 ALRC Report recommends a model based on the Federal Court discovery rules in FCR 20. This seems an eminently sensible approach.

The ALRC recommended the introduction of federal legislation based largely on the Federal Court rules, providing for a uniform mechanism for the making of a privilege

⁴⁷ See for example, *Federal Court Act 1976* (Cth) s 37M.

⁴⁸ Woellner and Bersten, 'Quo Vadis', above n 1, 557 (noting that the Commissioner's power to produce documents arises under s 353-10 of Sch 1 to the *Taxation Administration Act 1953* (Cth)). It could also be questioned whether, if an application was made in relation to all documents, the court could handle such applications. The fact that it is unclear whether the issue would arise in defence to a prosecution leaves LPP in an undesirable state of uncertainty.

⁴⁹ *Federal Court Rules 2011* (Cth) Pt 20.

⁵⁰ See *Evidence Act 1995* (Cth) Pt 1.2.

⁵¹ *Ibid* Pt 3.10.

claim in both curial and non-curial federal investigations.⁵² Under this recommendation, the main ‘rules’ would be:⁵³

- (1) Privilege claimants must have a reasonable opportunity to make a privilege claim. This would extend to situations where the federal body uses its compulsory powers to obtain access to privileged communications from a third party.⁵⁴
- (2) The claimant needs to specify the grounds and facts relied upon.
- (3) Each claimed document or bundle of documents must be described by date, nature of document and type of communication, the name and position of the author and recipients of the communication.
- (4) If required by the federal body, the particulars of the privileged documents and the basis of claims must be verified on oath or affirmation by the claimant or their legal representative. The ALRC also recommended that State and Territory legal profession associations should ensure that their professional conduct rules provide specific guidance on the legal and ethical obligations of lawyers in verifying LPP claims under the proposed procedure.⁵⁵
- (5) Provision of a description of documents would not per se amount to a waiver of LPP.
- (6) There should be clear timelines set for privilege claims.⁵⁶
- (7) There should be a clear procedure established for obtaining a declaration by a court in the event of privilege disputes.⁵⁷
- (8) Where a federal investigator lawfully copies or images an electronically stored communication, such copying does not cause a waiver of LPP.⁵⁸
- (9) A model of a quasi-privilege for accountants (the non-disclosure right for tax advice documents) should be adopted in respect of the legal analysis in a tax opinion, though the claimant would still be required to disclose the facts.⁵⁹

These principles appear to be sensible as the basis for a solution to the issues raised above.

In September 2021, the ATO released its (draft) *Legal Professional Privilege Protocol*, which sets out the ATO’s ‘recommended approach for identifying communications covered by LPP and making LPP claims to the ATO’.⁶⁰ Following feedback on the draft,

⁵² ALRC, *Privilege in Perspective*, above n 9, Recommendation 8-3.

⁵³ As summarised in Woellner and Bersten, ‘Quo Vadis’, above n 1, 559.

⁵⁴ ALRC, *Privilege in Perspective*, above n 9, Recommendation 8-9.

⁵⁵ Ibid Recommendations 9-1, 9-2.

⁵⁶ Ibid Recommendations 8-5, 8-15.

⁵⁷ Ibid Recommendations 8-6, 8-11.

⁵⁸ Ibid Recommendation 8-16.

⁵⁹ Ibid Recommendation 6-6. This approach is along the lines of the New Zealand model contained in ss 20B-20G of the *Tax Administration Act 1994* (NZ). See also Andrew Maples, ‘The Non-Disclosure Right in New Zealand – Lessons for Australia?’ (2008) 1(3) *Journal of the Australasian Law Teachers Association* 351.

⁶⁰ ATO, *Legal Professional Privilege Protocol* (September 2021).

the ATO released the finalised Protocol (Protocol) in June 2022.⁶¹ In response to concerns that compliance with its Protocol might require standards of particularisation in privilege claims beyond those required by the *Federal Court Rules* and could raise issues of implied waiver (see section 4.3 below), the ATO Protocol notes that there is no standard form of particulars and its approach would help resolve claims.⁶² However, it is significant that the ATO has to date not identified what – if anything – it sees as deficient in the current *Federal Court Rules* or the ALRC recommendation as a possible model for a national LPP regime.

As noted, the current lack of standardisation has the potential to create an unnecessary multitude of divergent standards that may apply inconsistent principles and procedures between the courts and different government agencies. By contrast, the *Federal Court Rules* have for many years applied a standard that serves the purposes of justice effectively and efficiently and should be appropriate for all Federal agencies.

Were the ALRC recommendation to now be freshly examined, especially in the light of artificial intelligence (AI) and other technology which has been developed since the ALRC Report, considerable insights could be gleaned that could significantly improve LPP practice and procedure. It will be of interest to observe the reform options arising in this space from the Attorney-General's Department and Australian Treasury review should a final Paper be released (which, as noted earlier, now appears doubtful).

4.2 Merging multiple agency approaches

To address the issue of multiple diverse agency guidelines – LPP parallel universes – the ALRC recommended that the Attorney-General's Department establish a common approach for LPP claims and disputes amongst federal investigators, including an independent review mechanism before a matter was referred to the courts.

This seems eminently sensible as there is no logical reason why different approaches should apply between the policies of various agencies when the *Federal Court Rules* provide established standards that could easily, simply and expeditiously be applied consistently, providing a standard process for making and determining all privilege claims.

Thus, in the context of tax matters, rather than lawyers having to navigate the ATO Protocol in isolation, the preferable and simplest approach is to determine a single standard and set of rules for the practice and procedure of the privilege in federal non-curial investigations, in particular in this case to adopt the pre-existing ALRC recommendations for a model based on the Federal Court discovery rules.

⁶¹ ATO, *Compliance with Formal Notices – Claiming Legal Professional Privilege in Response to Formal Notices, Legal Professional Privilege (LPP) Protocol* (June 2022) ('Protocol').

⁶² Ibid [8], [11], [33]; ATO, 'ATO Provides Certainty on Legal Professional Privilege Claims' (22 June 2022) <<https://www.ato.gov.au/media-centre/ato-provides-certainty-on-legal-professional-privilege-claims>> (accessed 1 June 2026); ATO, 'Compendium: Compliance with Formal Notices – Claiming Legal Professional Privilege in Response to Formal Notices', available at: <<https://www.ato.gov.au/law/view/document?DocID=SGM/LPPcpd>>, Issue numbers 1 to 3, 7 – ATO Response ('Compendium').

4.3 The issue of implied waiver

As noted below, in June 2022, following discussion with the Law Council of Australia the ATO released a final version of a Protocol designed to manage privilege claims in ATO investigations.⁶³ The ‘voluntary’ Protocol is detailed⁶⁴ and sets out the ATO’s preferred process for claiming LPP. It has been subject to some criticism, not least because the very detailed particulars of an LPP claim required by the ATO Protocol raised concerns about the risk of unintended waiver by applicants (‘the Implied Waiver problem’).⁶⁵ While the final version of the ATO Protocol included in an Addendum an opinion from the Australian Government Solicitor that suggested the risk of waiver was low in making claims in accordance with the Protocol, this opinion was vague and heavily qualified, and also provides little concrete guidance for applicants.⁶⁶ Accordingly, it seems that only the introduction of comprehensive federal legislative protection (as recommended by the ALRC) would put the issue beyond doubt, and it is submitted that this is, therefore, the approach to be preferred. It is unclear as to why such a simple and obvious solution has not been adopted.

4.4 Resolving complications from the digital environment

As already noted, this article argues that careful and comprehensive Commonwealth legislation based on the ALRC ‘rules’ (above), spelling out relevant practice and procedure is essential to ‘save’ LPP in the current digital environment. The growing volume of digital information and the expanding range of formats in which privileged communications occur will continue to raise further challenges for the courts, agencies (including the ATO) and LPP claimants, with the accompanying potential to lead to ever longer and costlier claim exercises.

Although it has largely created or exacerbated the problem, it is important to acknowledge that technology can potentially help to manage technology-based claims for LPP. The ATO has indicated that it would seek to understand how computer-assisted technology can assist it in determining whether to accept, review or challenge a claim.⁶⁷ The 2024 Discussion Paper acknowledged the potential opportunities afforded by AI tools to aid document review but qualifies its support, stating that: ‘While relying on AI and digital tools can make identifying privileged communications more efficient, without adequate oversight and appropriate review, it may result in improper LPP claims’.⁶⁸

⁶³ Law Council of Australia, ‘Protocol to Provide Balanced Framework for Legal Professional Privilege Claims’ (Media Release, 26 July 2019) <<https://www.lawcouncil.asn.au/media/media-releases/protocol-to-provide-balanced-framework-for-legal-professional-privilege-claims>> (accessed 1 June 2026); see ATO, *Protocol*, above n 61.

⁶⁴ As the ATO *Protocol* and its implications have been examined in more detail in other publications, these issues are not reprised again here.

⁶⁵ Law Council of Australia, above n 63.

⁶⁶ Memorandum of advice from Australian Government Solicitor to Australian Taxation Office, ‘ATO Draft LPP Protocol – Written Feedback on Waiver’ (9 May 2022), in ATO, *Protocol*, above n 61, Addendum 4. While ‘voluntary’, the Protocol states in [10] that ‘following the Protocol does not mean we will never have concerns about your LPP claims or challenge your claims ...’: see ATO, *Protocol*, above n 61.

⁶⁷ ATO, ‘Compendium’, above n 62, Issue numbers 70-74 – ATO Response.

⁶⁸ Attorney-General’s Department and Australian Treasury, above n 8, 7.

To reflect the potential opportunities that AI technology affords to the efficient resolution of LPP claims, the ALRC recommendations should be updated to specifically address the digital environment and be mandated/legislated across agencies to avoid agencies adopting their own processes and exacerbating the parallel universe/multiverse issues discussed above.

5. THE PRIVILEGE AGAINST SELF-INCRIMINATION: THE DOCTRINAL BACKGROUND

5.1 What is the privilege against self-incrimination?

The basic principles of PASI have been examined in detail in earlier studies;⁶⁹ these principles are summarised below.

Essentially, PASI – encapsulated in the maxim ‘*nemo tenetur accusare se ipsum*’ (‘no one is bound to incriminate himself’)⁷⁰ – has the effect that a person is not bound to answer any question or produce any document under compulsion if the answer or the document would tend to expose that person,⁷¹ either directly or indirectly, to a criminal charge, the imposition of a penalty⁷² or the forfeiture of an estate which is reasonably likely to be proffered or sued for. It is a basic and substantive common law right,⁷³ and not merely a rule of evidence.⁷⁴ It has been described as crucial in reducing the power imbalance between the citizen and the state,⁷⁵ preserving the presumption of innocence and ensuring the burden of proof remains on the prosecution.⁷⁶ However, PASI is limited in that the privilege is generally said to be ‘testimonial in nature’, that is, while protecting a witness from being ‘convicted out of his own mouth’, it does not protect non-testimonial evidence such as fingerprints, DNA, blood or breath samples, police line-ups or the like.⁷⁷

PASI has been described as ‘a cardinal principle of our system of justice’,⁷⁸ which ‘is based on the desire to protect personal freedom and human dignity’.⁷⁹ As the Queensland Law Reform Commission in its 2004 Report observes, ‘the courts have accordingly made it clear that the privilege should not be removed lightly’.⁸⁰

⁶⁹ For example, Woellner and Bersten, ‘Quo Vadis’, above n 1; Justice Robert McDougall, ‘The Privilege Against Self-Incrimination: A Time for Reassessment’ [2008] *New South Wales Judicial Scholarship* 24.

⁷⁰ QLRC, above n 2, 9.

⁷¹ Corporations and other entities cannot claim the privilege: *Environment Protection Authority v Caltex Refining Co Pty Ltd* (1993) 178 CLR 477, 500 (‘*Environment Protection Authority v Caltex Refining*’).

⁷² This article does not address the privilege against a penalty or forfeiture.

⁷³ Section 128 of the *Uniform Evidence Acts* provides a statutory version of the privilege which applies in federal court proceedings.

⁷⁴ ALRC (Rosalind Croucher, President), *Traditional Rights and Freedoms: Encroachments by Commonwealth Laws: Final Report* (ALRC Report No 129, 2015) [11.9] (‘*Traditional Rights and Freedoms*’).

⁷⁵ Ibid [11.30], quoting Gleeson CJ in *Caltex Refining Co Pty Ltd v State Pollution Control Commission* (1991) 25 NSWLR 118, 127.

⁷⁶ Ibid [11.29], quoting Kirby J in *Cornwell v The Queen* (2007) 231 CLR 260, [176].

⁷⁷ In *Sorby*, Gibbs CJ observed that PASI ‘prohibits the compulsion of the witness to give testimony, but it does not prohibit the giving of evidence, against the will of a witness, as to the condition of his body’: *Sorby*, above n 2, 292; ALRC, *Traditional Rights and Freedoms*, above n 74, [11.16].

⁷⁸ *Sorby*, above n 2, 294 (per Gibbs CJ) and quoted in QLRC, above n 2, [1.6].

⁷⁹ Murphy J in *Pyneboard*, above n 3, 346; quoted in ALRC, *Traditional Rights and Freedoms*, above n 74, [11.31]. See also *Stergis v Boucher* [1989] FCA 120, [50]-[51] (‘*Stergis*’).

⁸⁰ QLRC, above n 2, [1.8] citing ALRC, *Principled Regulation: Federal Civil and Administrative Penalties in Australia* (ALRC Report 95, December 2002) [18.23]-[18.24].

However, perhaps surprisingly, despite its importance, PASI is not protected expressly or impliedly by the Australian Constitution, nor – unlike some overseas jurisdictions – does Australia have a Bill of Rights that might protect the privilege. Accordingly, PASI can be limited or abrogated by legislation which exhibits a clear intention to do so.⁸¹

While the advent of the ‘regulatory state’,⁸² where legislation reigns supreme, has seen the volume of legislation generally increase dramatically and, with it, legislation interpreted by the courts as abrogating or limiting PASI similarly increase – often the legislation itself has been silent or unclear on abrogating or limiting PASI. As a result,⁸³ this creates a vacuum, meaning that the fate of PASI and the protection it offers must be determined by the courts.

It is submitted that poor policy choices by the courts have over time resulted in PASI coming under severe pressure, causing its scope (and therefore its protection) to shrink.⁸⁴

As with LPP, PASI has no doubt sometimes been abused.⁸⁵ However, in the main, again as with LPP, PASI has operated appropriately and effectively over a very long period and offered important protection crucial to citizens’ rights. It might therefore be expected that PASI would enjoy unalloyed support.

5.2 The ongoing erosion of the privilege against self-incrimination

Traditional rationales supporting PASI⁸⁶ have been generally accepted (and the importance of the privilege recognised) over many years. However, the protection given by PASI is not absolute, and can be limited or abrogated by legislation showing a clear intent to do so. In addition, the context in which it operates has changed over time. Thus, courts today would (hopefully) not tolerate the use of torture to extract information or confessions from accused persons, accordingly, it is argued that the rationale for the privilege which relied on avoiding abuse of the state imbalance of power should be correspondingly of less weight than it might have been in the less enlightened past.⁸⁷

⁸¹ See, eg, *Malika*, above n 6, 298 (per McHugh J); ALRC, *Traditional Rights and Freedoms*, above n 74, ch 11.

⁸² *Malika*, above n 6, 299 (per McHugh J).

⁸³ For example, in the cases of LPP, the change from a sole purpose test to one of dominant purpose.

⁸⁴ See, eg, *Commissioner of Taxation v De Vonk* (1995) 61 FCR 564 (‘*De Vonk*’); *Stergis*, above n 79.

⁸⁵ In the United States context, one of the most notable examples involved married couple Michael and Tareq Salahi, who attended a White House state dinner for the Indian Prime Minister in November 2009 without an invitation and met President Barack Obama. During a later hearing before the Committee on Homeland Security, the Salahis’ repeatedly invoked the Fifth Amendment to the United States Constitution – the functional equivalent to PASI – doing so more than 30 times in response to questioning: Ellen Brait ‘Pleading the Fifth: Five Notorious Times People Refused to Give Answers’, *The Guardian* (4 February 2016) <<https://www.theguardian.com/law/2016/feb/04/fifth-amendment-martin-shkreli-michael-tareq-salahi>>. Closer to home (in a case not involving a claim for privilege considered abusive), the High Court rejected a broad claim for PASI in *Deputy Commissioner of Taxation v Shi* (2021) 273 CLR 235. Following judgment against Mr Shi for substantial tax debts of AUD 42 million the Deputy Commissioner of Taxation was granted worldwide freezing orders and disclosure orders regarding the whereabouts of Shi’s assets. Relying on s 128A of the *Evidence Act 1995* (Cth) Shi objected to disclosure arguing it may tend to incriminate him under Australian law. In a decision also illustrating the narrowing of PASI, the High Court applied the exception to the privilege in s 128A(6) and ruled (by majority) that in the interests of justice Shi was not entitled to the privilege.

⁸⁶ McDougall, above n 69; ALRC, *Traditional Rights and Freedoms*, above n 74, [11.27]–[11.32].

⁸⁷ See for example QLRC, above n 2, [3.1]–[3.9].

However, it would be necessary to ask whether the scales have tipped too far. As the QLRC has stated: ‘in an era of increased legislative regulation and demands for greater investigative powers for regulatory authorities, there remains a need for protection against the way in which these powers may be exercised’.⁸⁸

The potential for misuse of governmental powers is clear from the Robodebt scandal and other recent examples, as is the need to ensure appropriate protection for citizens from such misuse, especially in a digital world, where actions and problems can spread across society and beyond with blinding speed.

Reflecting on the balance struck between the state’s power to prosecute and the position of an individual who stands accused in the criminal justice system, in *Lee v The Queen*,⁸⁹ the High Court stated that:

The principle of the common law is that the prosecution is to prove the guilt of an accused person. ... The principle is so fundamental that ‘no attempt to whittle it down can be entertained’, albeit its application may be affected by a statute expressed clearly or in words of necessary intendment.⁹⁰

Similarly, as noted by the ALRC, the High Court has observed that ‘important rights and freedoms should only be interfered with reluctantly – when truly necessary’.⁹¹ Accordingly, courts traditionally required very clear legislative direction before holding that legislation had abrogated a ‘fundamental’ common law principle or interfered with fundamental human rights. As McHugh J observed in *Malika*: ‘Clear and unambiguous language is needed before a court will find that the legislature has intended to repeal or amend these and other fundamental principles’.⁹² In recent times, the courts have lowered the bar for abrogation of PASI (and thus reduced the scope of the protection it affords to citizens) dramatically.

That is, regrettably, despite the courts’ very strong statements, there has in recent times been considerable ‘whittling’ down of PASI on bases that were not always well considered. This has now reached a point where the protections offered by PASI have been significantly eroded and diminished.

6. CAUSES OF THE ONGOING EROSION OF THE PRIVILEGE AGAINST SELF-INCRIMINATION AND THE WAY FORWARD

The erosion of PASI over time primarily seems to have been due to two key factors – neither acting malevolently.

⁸⁸ Ibid [6.11].

⁸⁹ *Lee v The Queen* (2014) 253 CLR 455 (‘*Lee*’).

⁹⁰ Ibid 467 (footnotes omitted), cited in ALRC, *Traditional Rights and Freedoms*, above n 74, [11.28]. In *Stergis*, Hill J stated that ‘The genius of the common law lay in its ability to respond to the needs of the liberty of the subject’, and ‘The privilege against self-incrimination is deeply ingrained in the common law’: *Stergis*, above n 79, [50], [51] (citing *Sorby*, above n 2, 309, per Mason, Wilson and Dawson JJ), respectively.

⁹¹ See ALRC, *Traditional Rights and Freedoms*, above n 74, [1.15].

⁹² *Malika*, above n 6, 298.

6.1 The increasingly active role of Parliament

Although it is recognised as a crucial and substantive common law right, the privilege against self-incrimination is not absolute,⁹³ because it enjoys no specific legislative protection, nor does Australia have a Bill of Rights which might provide it protection. As noted above, it is well established therefore that Parliament can abrogate or restrict the privilege by passing legislation which is clearly intended to do so – and over time Parliament has taken up the opportunity to enact legislation designed to abrogate or limit PASI.⁹⁴ No doubt this was done with good intent, but the result has been extremely unfortunate.

It is significant, however, that not only does the number of abrogating Acts appear to have continually increased over time, but there also seems to have developed a tendency for the criterion applied by courts for finding implied abrogation to have changed from the traditional focus on human needs and protection of citizens' rights⁹⁵ to one focusing on the alleged needs of government (ie, a change from people to 'things', such as 'economic efficiency' arguments).⁹⁶ Sometimes this seems to occur without vigorous (or any) testing of parties' submissions. This is an alarming and unacceptable development.

In the past, was there was a default assumption that legislation was not intended to remove fundamental rights and, as a result, courts would only find that legislation overrode a fundamental right such as one of the privileges where the legislative intent to do so was 'clear and unambiguous'⁹⁷ or spoke with 'irresistible clearness'.⁹⁸ In 2004, the Queensland Law Reform Commission stated that: 'In the absence of express words of abrogation, the exclusion of the privilege against self-incrimination will depend on whether the provision in question sufficiently demonstrates the relevant intention by "necessary implication"',⁹⁹ a phrase it has been held 'imports a high degree of certainty as to legislative intention'.¹⁰⁰

The key preliminary issue in determining whether a piece of legislation abrogates or limits PASI is, therefore, to determine whether or not the particular principle or right in question is 'fundamental', because presumably a court would require clearer evidence of intention to abrogate a 'fundamental' principle than it would in the case of a 'basic' principle. This issue will be determined by reference to not only the language of the particular Act or principle in question, but also the purpose which the principle is designed to achieve. In earlier cases, there seemed to be general agreement on a relatively settled core of 'fundamental' principles. For example, in *Malika*, McHugh J identified as 'fundamental legal principles' such things as the requirement that a civil

⁹³ It is not protected by the Australian Constitution. See eg *Sorby*, above n 2, 308 (per Mason, Wilson and Dawson JJ).

⁹⁴ See ALRC, *Traditional Rights and Freedoms*, above n 74, ch 11. The ALRC report also lists six areas where Commonwealth laws exclude PASI: [11.71]-[11.110].

⁹⁵ See, eg, *Environment Protection Authority v Caltex Refining*, above n 71, 503 (per Mason CJ and Toohey J). See also *Sorby*, above n 2 (per Gibbs CJ); *Rees v Kratzmann* (1965) 114 CLR 63, 80 (per Windeyer J).

⁹⁶ See, eg, *De Vonk*, above n 84; *Stergis*, above n 79. See also arguments concerning stultification (section 6.3 of this article).

⁹⁷ *Malika*, above n 6, 298 (per McHugh J).

⁹⁸ Ibid 299 (quoting *Potter v Minahan* (1908) 7 CLR 277, 304).

⁹⁹ QLRC, above n 2, [7.3] citing *Sorby*, above n 2, 309 (per Mason, Wilson and Dawson JJ).

¹⁰⁰ *Hamilton v Oades* (1989) 166 CLR 486, 495 (per Mason CJ) ('*Hamilton*') cited in QLRC, above n 2, [7.3].

or criminal trial must be fair; and a criminal charge is to be proved beyond reasonable doubt.¹⁰¹

However, his Honour warned that care needs to be taken in declaring a principle to be ‘fundamental’, because: ‘times change. What is fundamental in one age or place may not be regarded as fundamental in another age or place’.¹⁰²

That is, his Honour was suggesting that in the ‘new regulatory world’, given the frequency with which the legislature now amends or abolishes rights, or departs from the general system of law, it is difficult to accept an initial presumption that the legislative intention is not to abrogate.

6.2 The corrosive role of the courts

There is now a significant and increasing number of federal Acts that may be seen as potentially abrogating the privilege against self-incrimination. Unfortunately, legislation to date has rarely abrogated the privilege expressly and is often silent or unclear on whether it is intended to impliedly abrogate or restrict the privilege in a particular situation. This creates a vacuum which means that the courts are required to resolve the uncertainty by engaging in the very difficult subjective exercise of determining whether the legislation has impliedly abrogated the privilege and if so, to what extent. It is relevant in this context to note that ‘the modern view of the privilege as a significant human right reinforces the argument that, if the right is to be abrogated, the abrogation should be clearly and unambiguously expressed’,¹⁰³ because an individual should be able to determine clearly whether or not they are entitled to rely on PASI.¹⁰⁴

The first issue for the court in this process will be to determine whether or not the principle in question is properly characterised as ‘fundamental’. As noted, this will generally be determined by the court in light of not only the language of the particular principle, but also the principle’s character and the purpose which it is designed to achieve.¹⁰⁵ This first step is crucial because presumably a court would require stronger evidence to justify finding a clear legislative intent to abrogate a ‘fundamental’ principle than if the principle in question is an ‘ordinary’ principle.

It is important to note that depending on how a court interprets and applies these criteria, the court’s decision will expand or contract the scope of (and therefore the protection afforded by) the privilege.

Assuming that the principle in question is characterised as ‘fundamental’, the second step will require the court to identify and balance the factors it will take into account in

¹⁰¹ *Malika*, above n 6, 298.

¹⁰² *Ibid.*

¹⁰³ QLRC, above n 2, [7.33].

¹⁰⁴ *Ibid* [7.31]-[7.32].

¹⁰⁵ *Ibid* [7.3]-[7.4] citing respectively *Hamilton*, above n 100, 495 per Mason CJ, and *Pyneboard*, above n 3, 341 (per Mason ACJ, Wilson and Dawson JJ). The QLRC noted that in 2002 the High Court had in *The Daniels Corporation International Pty Ltd v Australian Competition and Consumer Commission* (2002) 213 CLR 543 (*‘Daniels’*) replaced the former test with a ‘considerably more stringent approach’ to the determination of implied abrogation and rejected the previously held view (in *Pyneboard*, above n 3) that an expression in a provision in general terms would be sufficient to impliedly abrogate a fundamental common law right such as PASI, on the basis that a power conferred in general terms would be unlikely to contain the necessary implication: QLRC, above n 2, [7.6]-[7.8].

reaching its decision on whether or not PASI has been impliedly abrogated or restricted. This difficult balancing process will often involve consideration of competing public and private interests,¹⁰⁶ and a determination of whether – in the court’s view – the identified public interests outweigh the ‘private’ interests of an individual or group. This exercise of balancing what are invariably amorphous and elusive policy factors can raise very difficult issues in an area such as this where there are no ‘bright line’ tests, and policy factors may be finely balanced.

On one side of the balance will generally be an array of ‘public interest’ factors. Some may be compelling, such as national security, or pandemic health crises. However, the public interest factors are not always of that ilk, and indeed the ‘weight’ of public interest factors seems to be diminishing over time.

For example, one ‘public interest’ factor which has been strongly argued in recent times as favouring abrogation is the claimed (and apparently insatiable) need for government agencies to have unrestricted access to (all) information – including privileged information – in order, it is claimed, to be able to operate effectively (the ‘economic efficiency’ argument). It is also often argued that this is a predominant factor, because – so it is said – unless government agencies (and others) have the power to compel the provision of incriminating information, the agency will be unable to perform its designated role effectively.

On the other side of the balance will often rest ‘individual’ interests and rights (such as human privacy and dignity).

As noted above, in approaching this balancing process, one of the problems is that the type of ‘public interest’ being relied upon as a justification for implied abrogation seems to have become much less compelling over time. Early justifications for abrogation generally targeted ‘first level’ issues such as the public interest in national security, serious risk or crime, and the like.¹⁰⁷ For example, the Law Council of Australia suggested that ‘an investigation into “major criminal activity, organised crime or official corruption” might justify an abrogation of the privilege, as would risks such as “danger to human life, serious personal injury or damage to human health”’¹⁰⁸ (in the context of its submission more broadly that abrogation should be based on an “assessment that the public benefit which will derive from negation of the privilege must decisively outweigh the resultant harm to the maintenance of civil rights”¹⁰⁹). The ACTU¹¹⁰ was more restrictive, taking the view that only the intention to avoid serious risk would justify abrogation and being critical of the inclusion of workplace relations as a criterion, on the basis that, unlike workplace health and safety, ‘no such pressing public

¹⁰⁶ Ibid [6.24] listed a series of factors (originally proposed in the New Zealand Law Commission, *The Privilege Against Self-Incrimination: Discussion Paper* (NZLC PP 25) (Wellington, 1996) 86-87, 91).

¹⁰⁷ Compare the examples provided by the Queensland Law Reform Commission: QLRC, above n 2, [6.18]-[6.21], and the observations in *Hamilton*, above n 100, 503 (per Deane and Gaudron JJ).

¹⁰⁸ ALRC, *Traditional Rights and Freedoms*, above n 74, [11.49], quoting Law Council of Australia, *Submission 75* (‘Submission 75’).

¹⁰⁹ ALRC, *Traditional Rights and Freedoms*, above n 74, [11.49], quoting Law Council of Australia, *Submission 75*, above n 108.

¹¹⁰ Australian Council of Trade Unions (ACTU), *Submission 44*, quoted in ALRC, *Traditional Rights and Freedoms*, above n 74, [11.50].

interest was at stake' though they went on to include lower-level factors, such as serious damage to property or the environment or significant economic detriment.¹¹¹

It would be difficult to argue against the first few of the above factors. However, factors such as damage to the environment or property, or 'significant' economic detriment¹¹² (an elusive and difficult criterion to determine), while no doubt important, are arguably of a lesser order of magnitude and focus on damage to 'things' rather than people, yet increasingly are being held to override humanist factors. For example, the Terms of Reference for the ALRC's *Traditional Rights and Freedoms* investigation specifically directed it to include in its analysis a consideration of Commonwealth laws in the areas of but not limited to: 'commercial and corporate regulation'; 'environmental regulation'; and 'workplace relations'.¹¹³

This inclusion of 'second level' factors as criteria justifying a finding of implied abrogation of PASI represents a serious weakening in the threshold PASI requirement of 'public interest'. This is significant, because the weaker the threshold or 'entry' requirements become, the wider the range of factors which can be considered as favouring abrogation, and thus the narrower the scope left to be covered by PASI protections, and the significant expansion in the range of unprotected citizens. That is not to argue that areas such as workplace relations are not important public interests, but they are arguably qualitatively different and of a lesser order of magnitude than issues such as the risk of death or injury and national security. Such secondary factors are also increasingly remote from the original humanist rationale for the privilege. That is, the focus seems to have shifted from the protection of people to the protection of 'things'. This is inappropriate but provides an interesting illustration of the way that the implied abrogation exemption is being expanded and the scope of the privilege's protection correspondingly eroded.¹¹⁴

The impact of this trend towards less stringent criteria was aptly summarised by McHugh J in *Malika* who observed: 'Such is the reach of the regulatory state that it is now difficult to assume that the legislature would not infringe rights or interfere with the general system of law'.¹¹⁵ McHugh J¹¹⁶ went on to cite with apparent approval the comments of the six Justices of the High Court in *Bropho v Western Australia*¹¹⁷ who observed that, if a principle ceases to be characterised as 'fundamental', 'the presumption that the legislature would not have intended to depart from that principle or to abolish or modify that right will necessarily be undermined and may well disappear'¹¹⁸ (as would the protection offered by the privilege). This reflects a complete 'about face' from the traditional view.

¹¹¹ Ibid [11.50], [11.107].

¹¹² Law Council of Australia, *Submission 75*, above n 108, quoted in ALRC, *Traditional Rights and Freedoms*, above n 74, [11.49].

¹¹³ ALRC, *Traditional Rights and Freedoms*, above n 74, 5-6. As noted above, the ACTU opposed the inclusion of workplace relations as a fundamental area: see ACTU, above n 110.

¹¹⁴ An exception is *De Vonk*, above n 84.

¹¹⁵ *Malika*, above n 6, 299.

¹¹⁶ Ibid.

¹¹⁷ *Bropho v Western Australia* (1990) 171 CLR 1. 18 (per Mason CJ, Deane, Dawson, Toohey, Gaudron and McHugh JJ).

¹¹⁸ Ibid and cited by McHugh J in *Malika*, above n 6, 299.

6.3 Abrogation of the privilege against self-incrimination and the argument of ‘stultification’

However, the courts seem to have been increasingly ready in recent times to treat PASI as impliedly abrogated, with this conclusion based (at least in part) on an argument of ‘stultification’ (ie, total frustration). Thus, in *Stergis*, which concerned whether applications to have a matter heard had been lodged within a reasonable time, Hill J concluded, in finding the privilege had been impliedly abrogated by a change in legislation, that it would be ‘stultifying the whole purpose’ of the *Income Tax Assessment Act 1936* (ITAA 1936) if the accused persons could claim the privilege, as it would be impossible for ATO investigators to operate effectively.¹¹⁹

Similar comments were made in *Commissioner of Taxation v De Vonk*.¹²⁰ That case concerned a notice served on De Vonk under the then section 264 of the ITAA 1936 (the predecessor to section 353-10 of Schedule 1 to the *Taxation Administration Act 1953* (Cth)) by the ATO, requiring him to attend and be examined in relation to certain activities of and distributions by a gold mining syndicate which related to criminal charges. On appeal, the Full Federal Court in *De Vonk* (Foster, Hill and Lindgren JJ), confirmed that PASI (and LPP) had been impliedly abrogated.¹²¹ The Court based this conclusion on a ‘stultification’ argument.

Hill and Lindgren JJ commented that:

If the argument were to prevail that the privilege against self-incrimination was intended to be retained in tax matters, it would be impossible for the Commissioner to interrogate a taxpayer about sources of income since any question put on that subject might tend to incriminate the taxpayer by showing that the taxpayer had not complied with the initial obligation to return all sources of income.¹²²

That is, the Court held that such an argument would ‘totally stultify’ the collection of income tax.¹²³ The correctness of such decisions is not beyond dispute, as considered below.

Nevertheless, the ‘stultification’ argument has grown apace. Indeed, McNicol argues that ‘it is clear that frustration of statutes has become the yardstick for determining whether there is a clear manifestation of a legislative intention to abrogate privilege by necessary implication’.¹²⁴ McNicol goes on to argue that it is rare now for the courts to find that the purpose of a piece of legislation would not be stultified if privilege were to apply. After *Daniels*¹²⁵ (see below), this may be a (slight) overstatement, as some of the High Court judges there expressed (*obiter*) a welcome scepticism with this argument.

¹¹⁹ *Stergis*, above n 79, [61] quoting Lord Goddard CJ in *Commissioners of Customs and Excise v Ingram* (1948) 1 All ER 927, 929. These comments were echoed by the Full Federal Court in *De Vonk*, above n 84, 582.

¹²⁰ Above n 84.

¹²¹ *Ibid*. The case turned primarily on the issue of whether the terms of the *Taxation Administration Act 1953* authorised the ATO to publish or disclose the transcripts of Mr De Vonk’s earlier compulsory questioning by the ATO.

¹²² *De Vonk*, above n 84, 583.

¹²³ *Ibid* 583, cited in ALRC, *Traditional Rights and Freedoms*, above n 74, [11.74].

¹²⁴ Suzanne B McNicol, ‘*Australian Competition and Consumer Commission v The Daniels Corporation International Pty Ltd and Another*’ (2002) 24(2) *Sydney Law Review* 281, 294.

¹²⁵ *Daniels*, above n 105.

Indeed, the validity of the ‘stultification’ argument, has been questioned. For example, in *Binetter v Deputy Commissioner of Taxation* (‘*Binetter*’),¹²⁶ the taxpayer argued that: ‘There is nothing to suggest that the offence provision that existed before 1984 stultified the operation of s 264, even though the privilege against self-incrimination apparently could then be claimed’.¹²⁷ While the Court in *Binetter* did not directly address the taxpayer’s arguments, it certainly did not reject them, deciding the case instead on the basis that the Court was obliged to follow the decision in *De Vonk*.

A question that must be asked is: what evidence is there that the ATO (or other government agencies) would be unable to function effectively if the ATO was unable to question taxpayers on privileged issues, and if this were the case, would it cripple an ATO investigation or its operations? There does not seem to be any reported case where the only evidence led by the ATO was a taxpayer (or other) confession, as distinct from the usual detailed analysis of box loads of extensive taxpayer and third-party documentation and communications gleaned from a range of sources.¹²⁸ That is, experience suggests that the stultification argument is based on a false premise – it is simply not true that the ATO, for example, would be unable to obtain adequate information if PASI applied – the ATO has numerous other sources of information available to it.

In *Daniels*, the High Court considered (tangentially) the stultification argument. *Daniels* was not directly on point, as it involved the question of whether section 155 of the *Trade Practices Act 1974* impliedly abrogated LPP (rather than the application of PASI). However, it is submitted that the base principles apply equally to PASI. In *Daniels*, the Full High Court of seven Justices (Gleeson CJ, Gaudron, McHugh, Gummow, Kirby, Hayne and Callinan JJ) reinforced the principle that only very clear words in a statute would create an implied abrogation.¹²⁹ More significantly for present purposes, some judges in *Daniels* also expressed a degree of scepticism when dealing with the stultification argument.¹³⁰

Reflecting further on the stultification argument, there is an even more fundamental and important question that should be asked: on what basis should economic efficiency arguments such as that put forward in *De Vonk* and elsewhere be allowed to outweigh arguments based on human rights and the importance of a privilege which has been characterised as a ‘bulwark of liberty’¹³¹ and which protects citizens’ rights to dignity, privacy and freedom?

¹²⁶ *Binetter v Deputy Commissioner of Taxation* (2012) 206 FCR 37.

¹²⁷ Ibid [23] point (4); see also [23] point (5), [24].

¹²⁸ However, it is possible that a ‘confession’ or ‘admission’ could conceivably lead the ATO to, at least, take a closer look at some of these other sources.

¹²⁹ *Daniels*, above n 105, [100] (per Kirby J).

¹³⁰ Ibid [24]; for example, the plurality (Gleeson CJ, Gaudron, Gummow and Hayne JJ) commented that: ‘A communication the purpose of which is to “seek help to evade the law by illegal conduct” is not privileged. That being so, it is difficult to see that the availability of legal professional privilege to resist compliance with a notice under s 155(1) of the Act would result in any significant impairment of the investigation of contraventions of the Act, much less in the frustration of such investigations. At least, that conclusion is far less obvious than in the case of the privilege against exposure to penalties’ (footnote omitted).

¹³¹ *Pyneboard*, above n 3, 340, quoted in QLRC, above n 2, [1.6].

Is there a risk of unintentionally impacting some human rights – or perhaps seeing the first sparks from the Bonfire of the Privileges?

That is, we should be asking: on what basis has the (alleged) apparently endless claimed need of the ATO (and other investigative agencies) for information in the name of economic efficiency be elevated – in many cases without much apparent reflection or argument – over the important human rights fundamental to the traditional operation of PASI?

Certainly, such decisions involve a delicate and difficult balancing process, in which a range of factors must be taken into account.

However, economic efficiency arguments have been raised more often in recent cases and increasingly given predominant weight over ‘human’ factors. For example, Crosbie and Kumar¹³² note that clearly:

Statutory investigations are an increasingly important tool in modern administration and regulation. In the past year, governments have come under renewed pressure to strengthen the powers of regulatory and investigatory bodies. Terrorism and dramatic corporate collapses both here and overseas have led to fresh demands on regulatory bodies. Against this call for greater powers is an equally loud plea for a review of the way in which regulators exercise their powers. ... Inevitably a tension arises between the need to regulate and the very real prospect of diminished individual rights.¹³³

It must of course be conceded that gathering information for the purpose of investigation and related activities is important for investigative agencies, but is it really more important than the human values represented by PASI? We must ask whether a focus on economic efficiency is a more appropriate focus of PASI than its traditional ‘humanist’ concerns. The authors submit strongly that the answer should clearly be ‘no’ and submit that a much closer and better-informed analysis would be necessary before adopting this economic efficiency approach, particularly as the economic efficiency argument depends on an attractive but seductive ‘slippery slope’ argument.

If the economic efficiency argument continues to be applied and the range of agencies and departments claiming abrogation of the privilege continues to expand, there is a real risk that the areas covered by claimed economic efficiency arguments (where the privilege would be abrogated) could become virtually all-encompassing. Indeed, this process is arguably already in motion, as the numerous such agencies referred to by the ALRC Report¹³⁴ attest. If so, this could leave no space at all for the application of PASI and its important protections.

Could this exclusion of PASI leave some (potential) claimants feeling abandoned and unprotected, left to watch their hopes – and rights – slowly sink and drown unheeded in the weeds and mud at the bottom of the jurisprudential pool?

¹³² Fiona Crosbie and Ben Kumar, ‘Power versus Privilege: The Implications of Daniels v ACCC’ (2003) 31(1) *Australian Business Law Review* 7, cited in QLRC, above n 2, [1.7].

¹³³ *Ibid* 7.

¹³⁴ See for example as referred to in ALRC, *Traditional Rights and Freedoms*, above n 74.

It is important to recall that the test that courts generally apply for determining implied abrogation is one of ‘necessary implication’,¹³⁵ under which the court will not interfere with fundamental¹³⁶ rights or common law principles (such as PASI) unless Parliament makes it ‘unmistakably clear that it intended the statute to do so’.¹³⁷ This protection appears to be going out with the tide.

6.4 The way forward

The erosion of PASI has been driven primarily by the flood of legislation which (as interpreted by the courts) has sought generally to impliedly (rather than expressly) limit or abrogate the privilege and which leaves accused people uncertain of their position, and therefore exposed and vulnerable.

The erosion of PASI illustrates that unless legislation is accurately targeted and carefully drafted, and interpreted prudently by the courts, it can create a vacuum which generates uncertainty. It also highlights the corrosive effect of court decisions giving ‘economic efficiency’ arguments greater weight in the balancing process than the ‘humanist’ values on which PASI was based, and too often – apparently without proof or argument – elevate ‘stultification’ arguments over humanist factors. This shifts the balance too far in favour of governments and away from the original rationales of PASI and creates uncertainty for those trying to ‘read the judicial tea leaves’.

The present uncertainty is unnecessary, because, as the Queensland Law Reform Commission recommended, it could be removed comparatively simply by the introduction of general federal legislation stating expressly that in the absence of a ‘clear, express provision to the contrary’, a person can claim PASI.¹³⁸ This might at least force parliamentary drafters to consider the issue directly in each case, alert legislators to it, determine whether or not the legislators do intend the legislation to abrogate or restrict the privilege, and to then draft the legislation accordingly.

7. CONCLUSION

Privileges wavering in the diverse legislative universes or sinking in the weeds. The irony is overwhelming – LPP struggles because it lacks a comprehensive Commonwealth legislative framework; by contrast, PASI struggles with a surfeit of (poor) legislation.

The moral is that a legislative framework is essential, but unless it is carefully targeted and skilfully drafted, it can cause more problems than it solves.

This article has considered two key common law privileges – legal professional privilege and the privilege against self-incrimination. The first, LPP, exists to serve the

¹³⁵ QLRC, above n 2, [7.3] citing *Sorby*, above n 2, 309. As noted, it has been said that the term ‘necessary implication’ ‘imports a high degree of certainty as to legislative intention’: QLRC, above n 2, [7.3] citing *Hamilton*, above n 100, 495 (per Mason CJ).

¹³⁶ It is worth noting that in *Kassam v Hazzard* (2021) 106 NSWLR 520, 542, Bell P warned that outside the core areas, the rule ‘invites attention to ... the meaning of and manner in which “fundamental rights” are to be identified’ (reference omitted), going on to note the observations of McHugh J in *Malika*, above n 6, 298, ‘who urged caution in the identification of fundamental values and correlative fundamental rights in recognition of the fact that “in Australia today, few principles or rights can claim to be so fundamental that it is unlikely that the legislature would want to change them”’.

¹³⁷ ALRC, *Traditional Rights and Freedoms*, above n 74, [1.7].

¹³⁸ QLRC, above n 2, [7.33], see also [7.31]–[7.32], [7.35].

extremely important public interest in the administration of justice by encouraging full and frank disclosure by clients with their lawyers, thus enabling the lawyer to provide accurate legal advice. PASI protects a person from being required to incriminate themselves. It also acts as a significant protection for individuals in the modern computerised era which sees the state collecting and sharing considerable amounts of often confidential information about its citizens.

While both privileges offer vital protection to citizens, in non-curial cases both are under attack. Without oversimplifying the complex issues facing each privilege, at one level it is clear that a significant contributor to the issues discussed above is the inability of the common law to keep pace with developments impacting these privileges.

In relation to LPP (and other matters), the courts struggle to deal with ‘modern’ technology (and the exponential growth of modes of communication). There is also an organic problem with solely relying on the ATO or other agency guidelines on LPP when they are interested in the dispute over claims.

Taking all matters into account, there is an overwhelming case for implementing the recommendations of the (neutral) ALRC by extending the Federal Court discovery rules to non-curial cases, setting out the rules for claiming LPP and how to deal with disputes in respect of LPP claims. The recommendations in the 2008 ALRC Report provide a sound and ‘shovel-ready’ model for future legislation.

As part of this process, the current ALRC should be tasked with updating its 2008 recommendations to recognise the digital environment and development of AI technologies. The 2008 recommendations could be stripped of non-core elements such as the recommendation based on the New Zealand non-disclosure right for tax advice documents¹³⁹ so that the Commission could focus on the key areas where legislation is necessary, that is, to:¹⁴⁰

- (i) establish a whole federal government approach for non-curial LPP claims, drawing on the Federal Court discovery rules and embracing the discipline of lawyer affidavits to verify claims;
- (ii) avoid creating or perpetuating a privilege multiverse across federal agencies by establishing one set of rules for all federal agencies concerning LPP practice and procedure in curial and non-curial contexts alike, involving first an independent review mechanism and ultimately claims resolved in the Federal Court;
- (iii) legislate to guarantee that there is no ‘implied waiver’ when taxpayers, advisers or others make claims following the established LPP rules; and
- (iv) deal with increasing LPP claims for privilege in a digital universe and build in AI and similar technologies to support the making and resolution of the claims.

Ironically, while the erosion of LPP has arisen through the lack of clear, targeted legislation, the erosion of PASI has been driven primarily by the flood of federal Acts which may be seen as impliedly abrogating the privilege. Unfortunately, legislation to

¹³⁹ Maples, above n 59.

¹⁴⁰ Woellner and Bersten, ‘Quo Vadis’, above n 1, 567.

date has rarely abrogated the privilege expressly, and is often silent or unclear on whether it is intended to impliedly abrogate or restrict the privilege in a particular situation.

The stultification argument used increasingly often as the basis for abrogation was treated with scepticism by some judges in the High Court in *Daniels* – quite rightly. It is simply not true that the only source of information available to the ATO and other agencies is a confession by the taxpayer. Yet the courts seem (too often so far as appears from case reports) to accept this assertion (and the ‘economic efficiency’ arguments) without testing it.

The solution to this issue is comparatively simple. Drawing on the QLRC recommendation, the authors argue that greater certainty is easy to achieve through the introduction of general legislation stating expressly that in the absence of a ‘clear, express provision to the contrary’, a person can claim the privilege against self-incrimination.¹⁴¹ As noted this should at least mean the issue of privilege is considered by parliamentary drafters and the potential effect and downside of affected legislation is brought to the attention of legislators. More importantly, if the legislators, having considered the matter, do intend the legislation to abrogate or restrict the privilege, it must be drafted accordingly. Having the default statutory position that a person can claim the privilege also has the benefit, in the event the issue is not considered at the drafting stage, of erring on the side of protecting the citizen.

¹⁴¹ QLRC, above n 2, [7.33]; see also [7.31]–[7.32], [7.35].

From IRL to URL: the Australian Taxation Office's AI overhaul and what it means for Western Australia's SMEs

HM Sembiring,* Rendinta Delasnov Tarigan** and Malvin K Satria***

Abstract

The Australian Taxation Office's integration of artificial intelligence-driven services is transforming tax administration for Western Australia's small and medium enterprises (SMEs). Drawing on North's Institutional Theory, this article highlights how emerging technologies boost efficiency but also spark concerns about public trust and tax morale within the distinctive contexts of the SME sector in Western Australia. This article argues that robust ethical and governance frameworks are critical for preserving compliance and confidence. The recommendations set out in the article provide policymakers with transparent, inclusive strategies aimed at leveraging the transformative potential of artificial intelligence, while preserving the tax system's fairness and effectiveness. Ultimately, the article calls for deployment of artificial intelligence that is both innovative and anchored in strong institutional safeguards.

Keywords: artificial intelligence, tax administration, tax morale, small and medium enterprises, Western Australia

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1. INTRODUCTION

Who would have imagined that a technology once met with so much scepticism would turn out to be so deeply embedded in our daily activities? Nowhere is this transformation more profound than in taxation, where artificial intelligence (AI) has evolved into the backbone of modern revenue systems, revolutionising core functions within the institution. Reflecting this shift, the Organisation for Economic Co-operation and Development (OECD) has long advocated for the implementation of AI-driven analytics for better tax administration.¹

A striking example of this evolution is the United Kingdom's Making Tax Digital (MTD) initiative, introduced by HM Revenue and Customs in 2016.² By adopting AI-driven tools early on, HM Revenue and Customs has automated client file handling and data entry, turning the once-ambitious notion of a 'no-touch' tax return into a practical reality. This has positioned HM Revenue and Customs among the most digitally advanced tax authorities globally.

However, the implications of this evolution of AI in tax administration extend far beyond mere operational or bureaucratic streamlining. As this article will argue, AI fundamentally reconfigures the interface between governing bodies and taxpayers, shaping nascent standards of clarity, accountability, and trust. In Australia, the deliberate embrace by the Australian Taxation Office (ATO) of AI exemplifies this paradigm shift. The ATO's transition from traditional in-person 'IRL' interactions to predominantly digital 'URL' engagements signals more than just a change in service delivery. Further, it reflects a broader redefinition of tax administration in the digital age. Central to this transformation is the ATO's electronic storage of taxpayer information, which serves as a vital foundation for big data analysis and AI-driven decision-making processes.³

These shifts, however, are not uniform across all contexts. AI's growing presence in tax systems intersects with diverse local contexts, which can either amplify its benefit or expose its limitation. In Western Australia (WA), for example, small and medium enterprises (SMEs) constitute a vital part of the economy,⁴ spanning industries such as agriculture, fishing, energy, transport, warehousing and others.⁵ However, Western Australia's vast geographical area presents significant challenges for these businesses,

¹ Organisation for Economic Co-operation and Development (OECD), *Tax Administration 2023: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD Publishing, 2023) ('*Tax Administration 2023*'); OECD, *Tax Administration 3.0: The Digital Transformation of Tax Administration* (OECD, 2020); OECD, *Technologies for Better Tax Administration: A Practical Guide for Revenue Bodies* (OECD Publishing, 2016); OECD, *Advanced Analytics for Better Tax Administration: Putting Data to Work* (OECD Publishing, 2016).

² House of Commons, Committee of Public Accounts (UK), *Progress with Making Tax Digital: Eightieth Report of Session 2022-23* (HC 1333, 2023).

³ Duncan Bentley, 'Timeless Principles of Taxpayer Protection: How They Adapt to Digital Disruption' (2019) 16(3) *eJournal of Tax Research* 679, 697.

⁴ Small Business Development Corporation (WA), 'Small Business Landscape, Key Information and Statistics about the Small Business Sector in Western Australia' <<https://www.smallbusiness.wa.gov.au/about/small-business-landscape>> (accessed 29 May 2026) ('Small Business Landscape').

⁵ *Ibid.*

including inconsistent internet connectivity⁶ and lack of digital capabilities.⁷ These obstacles are further compounded by the State's status as a region not traditionally recognised as a digital hub.⁸

While these constraints present significant challenges for SMEs adapting to AI-driven solution provided by ATO, they simultaneously highlight the transformative potential of such technologies. AI tools offer the promise of reducing administrative bottlenecks, streamlining compliance processes, and delivering personalised, real-time guidance on tax obligations. For Western Australian SMEs, this potential is particularly salient. As key actors in the regional economy, SMEs are uniquely positioned to illustrate how AI might reshape taxpayers' experience in both practical and perceptual terms.

Unlike large corporations equipped with dedicated compliance departments and extensive resources, SMEs often operate with limited resources,⁹ juggling day-to-day operational demands while navigating new, technology-driven requirements. This resource constraint could make the transition to AI-enabled tax systems appear daunting. However, the very nature of AI's capabilities aligns closely with the needs of smaller enterprises. Automated checks can minimise errors in tax filings, predictive analytics can detect discrepancies before they escalate, and virtual assistants can provide continuous support for tax-related queries. These advantages go beyond mere operational efficiency; they address the specific 'pain points' faced by SMEs, fostering an environment where technology not only facilitates compliance but also cultivates a broader sense of fairness, trust, and efficiency in interactions with tax authorities.

While tax compliance is often conceptualised as a legal or regulatory obligation, it is deeply rooted in more complex, intangible factors such as trust in public institutions, perceptions of fairness, and a shared sense of civic duty.¹⁰ Drawing on North's Institutional Theory¹¹ and established models of tax morale, this study probes the ways in which advanced analytics and AI-based automation can enhance efficiency while also challenging the delicate equilibrium between taxpayer confidence and regulatory oversight.

⁶ The West Australian, 'Internet Down: Major IT Outage Impacting Businesses Including Banks, Woolworths and Coles' (19 July 2024) <<https://thewest.com.au/news/australia/internet-down-major-it-outage-impacting-businesses-including-banks-woolies-coles-mygov-and-centrelink-c-15408999>> (accessed 29 May 2026).

⁷ Hon Stephen Dawson (Minister for Emergency Services; Innovation and the Digital Economy; Science; Medical Research; Minister Assisting the Minister for State and Industry Development, Jobs and Trade) (WA), 'Multimillion-Dollar Boost to Support SMEs' Digital Transformation' (Media Statement, 11 December 2024).

⁸ PricewaterhouseCoopers (PwC), *New World. New Skills. Future of Digital Skills for WA* (2020).

⁹ James H Love and Stephen Roper, 'SME Innovation, Exporting and Growth: A Review of Existing Evidence' (2015) 33(1) *International Small Business Journal* 28, 31; Jimme A Keizer, Lieuwe Dijkstra and Johannes IM Halman, 'Explaining Innovative Efforts of SMEs: An Exploratory Survey Among SMEs in the Mechanical and Electrical Engineering Sector in The Netherlands' (2002) 22(1) *Technovation* 1, 7; Tino Woschke, Heiko Haase and Jan Kratzer, 'Resource Scarcity in SMEs: Effects on Incremental and Radical Innovations' (2017) 40(2) *Management Research Review* 195, 197.

¹⁰ Benno Torgler, *Tax Compliance and Tax Morale: A Theoretical and Empirical Analysis* (Edward Elgar, 2007).

¹¹ Douglass C North, *Institutions, Institutional Change and Economic Performance* (Cambridge University Press, 1990).

1.1 Research questions

To guide the analysis, three interrelated questions are posed:

(1) *Technological and organisational challenges:*

What barriers do Western Australian SMEs encounter in integrating AI-enabled tax systems, especially regarding infrastructure, costs, and requisite skill sets, and geographical challenges?

(2) *Governance, privacy, and ethics:*

What are the challenges and risks in AI-powered tax administration and how has the ATO navigated them?

(3) *Impacts on tax morale:*

In what ways do these technological shifts reshape SMEs' perceptions of fairness, and their willingness to comply with tax obligations?

By engaging with these questions, the article aims to explicitly draw on North's Institutional Theory, to elucidate whether the ATO's push toward AI can strike a meaningful balance between the pursuit of streamlined operations and the preservation of a positive, trust-based relationship with taxpayers.

Focusing on Western Australia's dynamic business environment offers a unique dual lens for analysing AI's role in tax administration, one that is both locally grounded and globally relevant. On the local level, capturing the experiences of Western Australian SMEs provides valuable insights for the ATO as it seeks to design and refine its digital platforms. Challenges such as inconsistent internet connectivity due to Western Australia's vast geography, limited digital infrastructure, and inadequate training opportunities risk undermining the efficiency gains promised by AI. If left unaddressed, these barriers could lead to taxpayer frustration, erode trust in public institutions, and ultimately compromise the intended benefits of technological adoption.

From a broader perspective, the intersection of cutting-edge AI applications and foundational elements of tax morale contributes to ongoing discussions about the nature of digital governance. The adoption of AI in tax systems is not merely a technical shift. It raises profound questions about how power, responsibility, and cooperation are negotiated between citizens and institutions in an increasingly digital society. This transformation compels us to consider how AI influences the delicate balance between administrative efficiency and the social contract that underpins voluntary tax compliance.

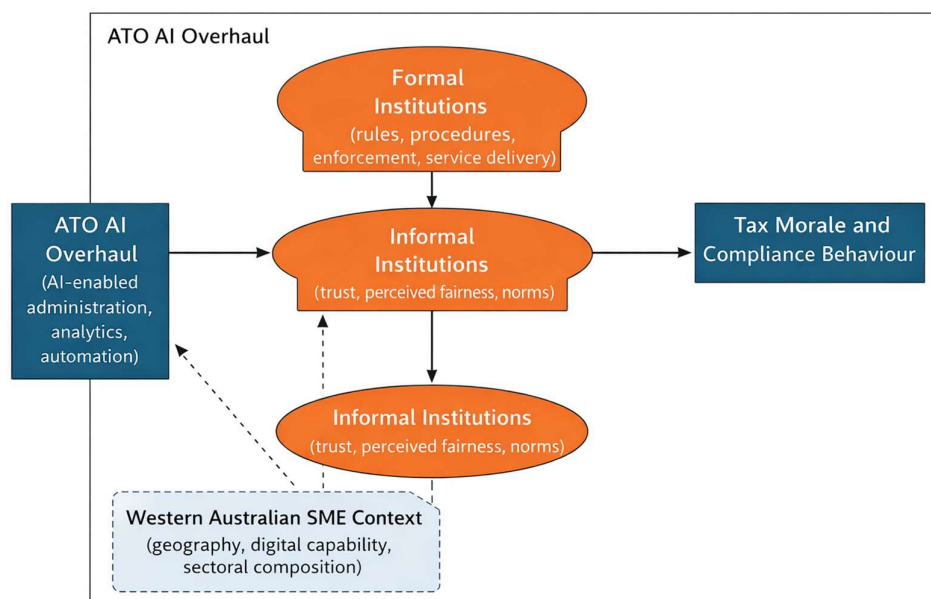
The sections that follow delve deeper into these critical issues. The analysis begins with an overview of AI and its innovations in public service delivery, setting the stage for understanding its implications within tax administration. This is followed by an exploration of tax morale theories and their relevance to Western Australia's SME landscape. Subsequent sections examine the ATO's AI-driven overhaul of its service offerings, identifying key drivers of this transformation and its tangible impacts on SMEs in the region. The discussion then turns to the challenges and risks associated with AI-powered tax administration, including potential threats to data security, equity, and trust. Finally, the article evaluates how the ATO is navigating these challenges and what lessons can be drawn for future digital governance initiatives.

This structured approach aims to illuminate both the concrete and the conceptual implications of Australia's 'IRL to URL' journey in tax administration, ultimately arguing that the success of AI-driven reforms hinges on how well they address the social and ethical dimensions that underpin taxpayer compliance. If implemented inclusively and thoughtfully, AI holds the potential to empower SMEs and strengthen the fabric of Australia's tax system. If executed without sufficient oversight, however, it risks introducing new barriers to trust and participation for the very enterprises that drive Western Australia's economic vitality.

1.2 Analytical framework and approach

North's Institutional Theory provides the conceptual framework for analysing the implications of AI-driven tax administration examined in this article. The theory emphasises the interaction between formal institutional structures, such as legislation, policy design, and administrative practices, and informal institutions, including perceived fairness, trust, and social norms, in shaping economic and social behaviour. Viewed through this lens, the adoption of AI in tax administration reveals potential tension between official policy objectives, such as improving compliance efficiency, and the informal factors that influence taxpayer behaviour in practice. Community norms, beliefs about justice, and broader socio-economic conditions play an important role in shaping how AI-enabled administrative reforms are interpreted and experienced. In this context, Western Australian SMEs provide a useful setting for examining whether AI-driven tax administration reinforces existing institutional arrangements or reshapes long-standing relationships between taxpayers and the tax authority.

Building on this institutional perspective, the article adopts a conceptual institutional analysis of the ATO's use of AI. The analysis is not empirical in nature and does not assess individual technologies in isolation. Instead, it examines how AI reshapes the institutional environment within which tax compliance decisions are made. The discussion develops across three related stages. It first considers the key features of the ATO's AI-enabled administrative practices that alter interactions between the tax authority and taxpayers. It then examines how these changes affect informal institutional factors central to tax morale, including trust, perceptions of fairness, and legitimacy. Finally, the analysis turns to the Western Australian SME context to assess how regional conditions and firm-level constraints mediate the institutional effects of AI-driven tax administration on compliance behaviour and tax morale.

Fig. 1: Analytical Framework for AI-Driven Tax Administration and Tax Morale

Source: authors.

2. TECHNOLOGY, AI, AND PUBLIC SECTOR INNOVATIONS

There was a time when many envisioned a future dominated by AI. A world drawn from the pages of science fiction, where intelligent machines governed society and humans were relegated to supporting roles. While these dramatic portrayals often veered into hyperbole, they hinted at an underlying truth that has quietly unfolded over time. AI has not seized control in some dystopian spectacle but has instead integrated seamlessly into the fabric of everyday life. From the virtual assistants embedded in our smartphones to the automated systems optimising complex workflows, AI is no longer a speculative concept confined to fiction. It has become an active, transformative force in the modern world.

As AI's influence continues to expand, the importance of thoughtful integration grows ever clearer. History offers numerous examples of the oscillation between unbridled enthusiasm and cautious scepticism, dating back to the emergence of AI research in the late 1950s. These cycles underscore a vital lesson: while technological innovation can be exhilarating, true progress demands a careful, measured approach. Industry commentaries such as those from McKinsey have encouraged governments like Australia's to adopt a measured approach when embedding AI into societal structures.¹²

¹² Aldous Mitchell and Damien Bruce, 'Proceed with Caution: Three Questions for Australian Governments to Answer as They Consider Gen AI', *McKinsey Australia and New Zealand Perspectives* (14 March 2024) <<https://www.mckinsey.com/au/our-insights/australia-and-new-zealand-perspectives/proceed-with-caution-three-questions-for-australian-governments-to-answer-as-they-consider-gen-ai>> (accessed 29 May 2026).

This approach is not about slowing down progress, rather it is about achieving a delicate balance between unlocking the immense potential of AI and mitigating its inherent risks.

In terms of extracting the benefit of AI, A prime example is the United States (US), where in response to the Obama administration's May 2016 initiative to coordinate federal AI activity and engage the public on AI's societal implications, the Networking and Information Technology Research and Development Subcommittee of the National Science and Technology Council issued a strategic plan in 2016.¹³ This plan is not just a policy document but a reflection of a broader commitment to integrate AI responsibly into the fabric of society. The United Kingdom has also responded by issuing its National AI Strategy, recognising AI's potential to enhance resilience, productivity, growth, and innovation across both private and public sectors.¹⁴ Furthermore, European national governments and the European Union (EU), through the European Parliament, have initiated the development of regulations for AI applications.¹⁵ These regulations aim to ensure that AI systems used in the EU are safe, transparent, traceable, non-discriminatory, and environmentally friendly.

On the back of such developments of strategic plans to maximise the potential of AI, some governments have also implemented regulatory measures to address the negative consequences of adopting this technology within their bureaucracies. For example, the US National Science and Technology Council prepared its initial reports on how to prepare for the future of AI, acknowledging the risk to safety, fairness and governance represented by AI, and outlining economic factors more generally involved in adoption of AI.¹⁶ The European Parliament has independently presented a report through its Committee on Legal Affairs, recommending the establishment of a European Agency for Robotics and Artificial Intelligence.¹⁷ The proposed agency would aim to provide the necessary technical, ethical, and regulatory expertise to support public actors at both EU and Member State levels. The goal is to ensure a timely and well-informed response to the new opportunities and challenges posed by advancements in robotics technology. The release of such documents highlights how timely and essential these efforts are in addressing the challenges posed by AI.

3. TAX MORALE AND INSTITUTIONAL THEORY

The concept of tax morale began to gain prominence in the 1950s, as a result of the pioneering work of German scholar Günter Schmolders.¹⁸ Schmolders highlighted the

¹³ National Science and Technology Council (US), Networking and Information Technology Research and Development Subcommittee, *The National Artificial Intelligence Research and Development Strategic Plan* (2016); see also National Science and Technology Council, *Preparing for the Future of Artificial Intelligence* (October 2016) ('*Preparing for the Future of Artificial Intelligence*') (the introductory letter noting that the report 'follows a series of public-outreach activities spearheaded by the White House Office of Science and Technology Policy (OSTP) in 2016').

¹⁴ Department for Digital, Culture, Media and Sport (UK), *National AI Strategy* (CP 525, September 2021) <https://data.parliament.uk/DepositedPapers/Files/DEP2021-0755/DCMS_National_AI_Strategy.pdf>.

¹⁵ European Parliament, 'EU AI Act: First Regulation on Artificial Intelligence' (8 June 2023, last updated 19 February 2025) <<https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence>>.

¹⁶ National Science and Technology Council, *Preparing for the Future of Artificial Intelligence*, above n 13.

¹⁷ European Parliament, Committee on Legal Affairs, *Report with Recommendations to the Commission on Civil Law Rules on Robotics* (2015/2103 (INL), 2017).

¹⁸ Günter Schmolders, *Das Irrationale in der öffentlichen Finanzwirtschaft: Probleme der Finanzpsychologie* (Rowohlt, 1960); Torgler, above n 10.

critical role of taxpayer psychology in boosting tax compliance. By incorporating psychological insights into fiscal policy, he underscored the importance of understanding taxpayer behaviour as a fundamental aspect of effective taxation. This innovative approach marked a significant shift in the 'art of taxation', emphasising the impact of psychological factors on tax compliance strategies.

As the discourse on tax morale has gained increasing attention from researchers in recent years, this section aims to contribute valuable insights into the factors that shape tax morale.¹⁹ Identifying the determinants of tax morale is crucial for all stakeholders, including tax authorities, as it informs the development of effective policies to maintain an optimal level of tax morale. Such policies are essential for ensuring successful tax collection and compliance.

In so doing, one may consider Institutional Theory as one of the salient theories to explore tax morale.²⁰ This article positions Institutional Theory as a useful tool for understanding tax morale, as it emphasises the role of institutions in shaping the behaviours and attitudes of individuals within society. North characterises institutions as the 'rules of the game', highlighting how they structure human interaction and influence compliance with tax laws.

While previous research has explored the role of institutions in shaping tax morale,²¹ this article offers a novel and comprehensive perspective. The article proposes a theoretical framework that systematically identifies the key institutional factors influencing tax morale. Drawing from North's²² perspective, it is possible to consider how these institutional 'rules of the game' interact to shape taxpayer behaviour and eventually compliance, providing a deeper understanding of the institutional dynamics involved which serves as an effective analytical lens in this endeavour.

North's definition of institutions is foundational to his theoretical work. He described institutions as the 'rules of the game' in a society, or more formally, as the human-made constraints that shape how people interact.²³ According to North, these institutions are deliberately designed to influence and guide human behaviour through some constraints which will be discussed in subsequent sections, ensuring these institutions fulfil their intended purpose. This concept underpins his broader theory, emphasising the role of institutions in structuring societal interactions.

In the context of Western Australia's SMEs, this theoretical framework is particularly useful. Formal institutions are represented by ATO policies and AI-driven administrative systems, which aim to streamline compliance and enhance transparency.

¹⁹ James Alm, 'What Motivates Tax Compliance?' (2019) 33(2) *Journal of Economic Surveys* 353.

²⁰ Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University Press, 1992).

²¹ Simon Hug and Franziska Spörri, 'Referendums, Trust, and Tax Evasion' (2011) 27(1) *European Journal of Political Economy* 120; Ignacio Lago-Peñas and Santiago Lago-Peñas, 'The Determinants of Tax Morale in Comparative Perspective: Evidence from European Countries' (2010) 26(4) *European Journal of Political Economy* 441; Jeffrey Cohen, Gil B Manzon, Jr and Valentina L Zamora, 'Contextual and Individual Dimensions of Taxpayer Decision Making' (2015) 126(4) *Journal of Business Ethics* 631; Jan Hanousek and Filip Palda, 'Quality of Government Services and the Civic Duty to Pay Taxes in the Czech and Slovak Republics, and Other Transition Countries' (2004) 57(2) *Kyklos* 237.

²² North, above n 11.

²³ Ibid.

Informal institutions are exemplified through local business practices, established routines, and community trust or scepticism towards governmental initiatives.

For example, SMEs in the Pilbara region might face unique challenges such as inconsistent internet connectivity and digital literacy limitations. These infrastructural constraints directly impact their trust in formal digital governance initiatives. In contrast, SMEs in Perth may readily adopt AI-driven solutions, reflecting a higher level of trust and digital infrastructure availability. The interplay between formal rules (ATO's AI policies) and informal norms (regional trust and practices) provides a practical illustration of how North's Institutional Theory operates within Western Australia's SME landscape.

Clearly linking theoretical insights to concrete regional examples ensures that the theoretical discussions remain grounded, practical, and directly relevant to the analysis of AI's impact on tax administration and morale among Western Australia's SMEs.

3.1 Tax morale in the face of a digital world

Over the past decade, tax morale has received heightened global attention for its pivotal role in shaping effective compliance strategies. Rather than relying solely on enforcement, authorities are increasingly emphasising fairness, justice, and collective responsibility as drivers for quasi-voluntary compliance. In this view, paying taxes becomes not just a legal duty but also a social norm that reinforces responsible citizenship.

However, research on tax morale has been slow to account for the rapidly evolving digital economy. As technological innovations disrupt traditional economic models, tax systems worldwide face mounting pressure to adapt. This transformation presents both challenges and opportunities, underscoring the need to re-evaluate how intrinsic motivations for tax compliance can be fostered and sustained in an environment defined by digitisation and data-driven governance.

In light of these challenges, it becomes imperative to understand the implications of this digital transformation for tax morale. As tax administrations strive to keep pace with the global shift towards digitisation, it is possible to observe the massive investments made by tax administrations globally in the development of e-services and digital solutions. According to a recent OECD report,²⁴ these investments aim at enhancing service delivery, reducing administrative burdens, and ultimately increasing tax compliance. These efforts reflect a significant shift in how tax authorities operate, emphasising the need for systems that are agile and capable of responding to a digitised economic environment.

Further, this transformation is crucial for addressing the complexities of taxing digital transactions that lack a conventional physical presence, a challenge that traditional tax systems often struggle with. By embracing digital solutions, tax authorities are not only expanding their ability to manage and collect taxes effectively but are also broadening the tax base. This proactive approach ensures that revenue collection keeps pace with

²⁴ OECD, *Tax Administration 2022: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD Publishing, 2022) ('*Tax Administration 2022*').

the global shift towards a digital marketplace, securing essential public funds in an increasingly interconnected world.

Building on this trend, the OECD has noted a significant increase in the adoption of advanced technologies by tax administrations to further enhance taxpayer compliance assessments.²⁵ For instance, the Canada Revenue Agency has integrated AI and data analytics extensively within its operations.²⁶ This integration empowers assurance and advisory professionals to use sophisticated tools that incorporate natural language processing, machine learning, and data visualisation. These technologies significantly transform how data is accessed, processed, and analysed, streamlining operations and improving efficiency.

In the same vein, the Inland Revenue Authority of Singapore (IRAS) is intensifying its use of data and AI across various functions.²⁷ This includes the development of new AI solutions and Minimum Viable Products (MVPs) aimed at managing tax non-compliance and enhancing service delivery. By leveraging AI, IRAS aims to automate and refine its processes, which helps in the proactive identification of potential non-compliance and facilitates a more customised approach to taxpayer engagement. These examples illustrate a broader shift towards digital sophistication in tax administration, focusing on technology as a crucial tool for modernising tax systems and improving compliance and service outcomes.

3.2 Situating tax morale in Western Australia's SME landscape

As of June 2021, Western Australia reported that its economy included 223,524 small businesses, representing 97 per cent of all enterprises in the State.²⁸ Yet the State's expansive geography often leaves many SMEs contending with inconsistent digital infrastructure, hindering their ability to invest in specialised expertise or adopt cutting-edge technologies for effective compliance. According to a 2019 survey by the Bankwest Curtin Economics Centre,²⁹ larger businesses with over 200 employees were far more likely (30.1 per cent) to have a Fibre to the Premises (FTTP) connection than their smaller counterparts, underscoring a systemic digital divide. This disparity in broadband access and quality creates practical barriers for SMEs as they navigate complex tax and regulatory requirements.

Further complicating matters, Western Australia's diverse economic base, which spans mining, agriculture, tourism, and energy, imposes a wide range of industry-specific rules and risk profiles. Taken together, these conditions shape the dynamic relationship between SME owners and government, underscoring the need for policies, infrastructure investments, and support programs that acknowledge regional realities and sector-specific demands.

Meanwhile, the SMEs' existing compliance culture and their level of trust in the ATO play an equally significant role. Many SMEs have established routines and perceptions

²⁵ OECD, *Tax Administration 2023*, above n 1.

²⁶ *Ibid* 84.

²⁷ OECD, *Tax Administration 2022*, above n 24.

²⁸ Small Business Development Corporation, *Annual Report 2021-22* (2022) 11.

²⁹ Steven Bond-Smith, Alan Duncan, Daniel Kiely and Silvia Salazar, *Falling Through the Net: The Digital Divide in Western Australia* (Bankwest Curtin Economics Centre Focus on Western Australia Report No 11/18, 2018).

about the ATO, informed by longstanding local norms and experiences. Trust in the tax authority can facilitate a smoother path to compliance, while scepticism or misunderstandings can hinder it, especially when new, technology-driven initiatives are introduced. As the ATO increasingly embraces automated and AI-driven systems, it becomes crucial to understand how these advances intersect with the practical realities and ingrained beliefs that characterise Western Australia's SME landscape. By examining both the day-to-day constraints facing SMEs and their evolving relationship with the ATO, valuable insights can be gained into how AI adoption may ultimately shape tax morale across this diverse region.

4. THE ATO'S AI OVERHAUL

This section describes the operational logic of the ATO's AI overhaul and the administrative outcomes it seeks to achieve, including efficiency, consistency, and improved risk identification. The purpose here is descriptive which to clarify what is changing in the architecture of tax administration before turning to the institutional and behavioural implications for SMEs.

When examining the ATO's annual reports and corporate strategies, it is immediately clear that artificial intelligence is more than just a buzzword. Over the past several years, the agency has steadily embraced real-time data analytics, risk-profiling tools, and machine learning models aimed at bolstering both enforcement and service delivery.³⁰ One particularly noteworthy milestone was the *Towards 2024* strategy introduced in 2018.³¹ This roadmap articulated a vision of a modernised, data-driven ATO that could harness AI to reduce manual tasks and make more consistent, evidence-based decisions.

4.1 The *Towards 2024* strategy: a pivotal milestone

During his tenure as Commissioner of Taxation, Chris Jordan emphasised that the *Towards 2024* strategy marked a decisive shift toward a more integrated, data-driven model of tax administration.³² The strategy signalled a move away from fragmented, transaction-based compliance toward a system designed around agility, automation, and proactive engagement. This institutional pivot responded not only to technological change, but also to rising public expectations for transparency, efficiency, and consistency in public administration.

In practice, this data-centric vision took shape through various pilot programs and digital enhancements. For instance, the ATO has tested advanced algorithms to identify suspicious tax returns, detect underreported income, and highlight anomalous patterns that might slip by human auditors.³³ In some cases, by using sophisticated identity-matching techniques, the agency can now automatically cross-reference data from banks

³⁰ Australian National Audit Office (ANAO), *Governance of Artificial Intelligence at the Australian Taxation Office* (Auditor-General Report No 26 2024-25, 2025) ('*Governance of Artificial Intelligence*').

³¹ Australian Taxation Office (ATO), *ATO Corporate Plan 2019-20* (last modified 31 July 2019).

³² Chris Jordan (Commissioner of Taxation), 'Challenges and Opportunities for a New Decade in Tax Administration' (Speech delivered to the 14th Atax International Conference on Tax Administration, 23 November 2021) <<https://www.ato.gov.au/media-centre/challenges-and-opportunities-for-a-new-decade-in-tax-administration>>.

³³ ANAO, *The Australian Taxation Office's Use of Data Matching and Analytics in Tax Administration: Australian Taxation Office* (Auditor-General Audit Report No 30 2007-08, 2008).

and other government agencies, under its Data Matching Program.³⁴ The logic here is straightforward. Much non-compliance can be spotted by analysing patterns in data, whether that is unusually high expenses, revenue amounts inconsistent with industry benchmarks, or repeated mismatches between reported amounts and third-party records.

4.2 AI-powered virtual assistants and SME support

A further dimension of the ATO's AI-driven reform agenda is the deployment of AI-powered virtual assistants designed to support taxpayer engagement. These tools provide real-time guidance on matters such as allowable deductions, filing obligations, and navigation of ATO digital systems, offering particular value to SMEs that lack dedicated compliance staff. By handling routine inquiries, virtual assistants reduce response times and shift basic support away from traditional call-centre models.

For SME owners managing day-to-day operational pressures, immediate access to tailored guidance can ease compliance burdens and reduce reliance on external advisers for routine matters. In this respect, AI-enabled service channels have the potential to improve accessibility and lower transaction costs associated with tax compliance, particularly for digitally capable businesses.

At the same time, the effectiveness of virtual assistance depends on users' digital capability and access to reliable connectivity. Where these conditions are absent, digital-first service delivery may generate new barriers rather than reducing existing ones. This tension underscores the need to assess AI-powered service tools not only in terms of efficiency gains, but also in terms of their distributive effects across different segments of the SME population.

4.3 Key drivers for AI adoption

The ATO's increasing reliance on AI-powered tools reflects mounting institutional pressures rather than a purely technological preference. Faced with expanding data volumes,³⁵ rising compliance expectations, and heightened public scrutiny, the agency has turned to automation and advanced analytics as a means of sustaining effective administration in an increasingly complex environment.

The scale of contemporary tax administration makes manual analysis increasingly impractical. In the 2021-22 financial year alone, the ATO processed approximately 14.3 individual current-year income tax returns,³⁶ with the overwhelming majority lodged digitally. This is complemented by the annual collection of hundreds of millions of third-party data points from banks, employers, and other government agencies. Against this backdrop, AI-enabled analytics offer the capacity to identify anomalies, detect underreporting, and prioritise compliance risks at a scale and speed unattainable through traditional audit models.

³⁴ ATO, 'How We Undertake Data Matching' (last updated 15 December 2025) <<https://www.ato.gov.au/about-ato/commitments-and-reporting/in-detail/privacy-and-information-gathering/how-we-use-data-matching>>.

³⁵ Nassim Khadem, 'ATO Chases Small Businesses for \$34b in Debt, Insolvencies Tipped to Hit Post-Global Financial Crisis Levels', *ABC News* (18 March 2024) <<https://www.abc.net.au/news/2024-03-18/ato-chases-small-business-debts-insolvencies-to-hit-gfc-levels/103583512>> (accessed 30 May 2026).

³⁶ ATO, *Annual Report 2020-21* (2021).

AI adoption has also been driven by persistent revenue risks, including Australia's individual tax gap, estimated at AUD 12.5 billion (6.2 per cent of total theoretical tax) for the 2022-23 period.³⁷ By cross-referencing taxpayer disclosures with extensive third-party datasets, AI tools are positioned as a means of improving detection while reducing reliance on resource-intensive, retrospective enforcement. However, this shift also underscores the need for caution, as automated systems can magnify errors if deployed without appropriate safeguards.

The Robodebt scheme illustrates these risks.³⁸ Its reliance on automated data matching with limited human oversight resulted in widespread errors and significant harm to public trust, ultimately prompting a Royal Commission. This episode serves as a critical reminder that automation, when insufficiently transparent or contestable, can undermine the legitimacy of public administration rather than strengthen it.

Taken together, these drivers explain the ATO's turn toward AI as both an operational necessity and an institutional response to contemporary governance challenges. At the same time, they highlight the importance of embedding AI within robust accountability frameworks to ensure that gains in efficiency do not come at the expense of fairness, transparency, and taxpayer confidence.

4.4 Impact on SMEs

SMEs typically operate with constrained budgets and limited staffing, realities that can amplify the impact of even minor regulatory changes. Mallett and co-authors³⁹ observe through the Identification–Interpretation framework, that owner-managers face competing demands for attention, limiting their capacity to identify, interpret, and respond to regulatory developments. These constraints shape how SMEs experience AI-enabled tax administration, particularly where adaptation requires new skills, systems, or organisational change.

As the ATO expands its use of AI to automate checks and analyse tax data in real time, SMEs encounter both potential benefits and new pressures. While AI-enabled services may reduce manual errors and streamline certain compliance processes, these efficiencies assume a level of digital capability and organisational capacity that is unevenly distributed across the SME population. For many smaller businesses, adapting to AI-driven systems requires reallocating scarce resources toward training, software, and administrative adjustment, potentially offsetting the promised gains of automation.

A further challenge arises from the limited ability of automated systems to interpret business-specific context. When an algorithm flags an unusual tax return, it lacks the contextual understanding to discern legitimate business fluctuations from potential

³⁷ ATO, 'Latest Estimate and Trends for the Individuals Not in Business Income Tax Gap' (3 November 2025)

<<https://www.ato.gov.au/about-ato/research-and-statistics/in-detail/tax-gap/i-p-tax-gaps/individuals-not-in-business-income-tax-gap/latest-estimate-and-trends>> (accessed 31 May 2026).

³⁸ Paul Karp and Luke Henriques-Gomes, 'What Is Robodebt? Six Things to Watch for in the Royal Commission's Final Report Today', *The Guardian* (7 July 2023) <<https://www.theguardian.com/australia-news/2023/jul/07/six-things-to-watch-for-in-the-robodebt-royal-commission-report>> (accessed 30 May 2026).

³⁹ Oliver Mallett, Robert Wapshott and Tim Vorley, 'How Do Regulations Affect SMEs? A Review of the Qualitative Evidence and a Research Agenda' (2019) 21(3) *International Journal of Management Reviews* 294, 305.

compliance risks.⁴⁰ This limitation is particularly significant for SMEs, whose business patterns often deviate from generalised compliance models embedded in the algorithms.

The practical consequences of this limitation are particularly evident in specific business contexts. Algorithms designed to detect anomalies may flag legitimate fluctuations as compliance risks where revenue patterns diverge from standardised benchmarks. Seasonal businesses, firms with irregular contract income, or enterprises operating in niche markets may therefore attract heightened scrutiny despite complying with their tax obligations. For SMEs with limited capacity to contest automated decisions, such outcomes can translate into prolonged reviews, compliance anxiety, and increased reliance on external advisers.

These dynamics have implications for tax morale. While AI may accelerate compliance for the majority of cases, it risks undermining perceptions of procedural fairness among businesses that experience the system as opaque or unresponsive to context. Concerns about misclassification, limited contestability, and uneven access to digital support can weaken trust in tax administration, particularly where SMEs already face structural disadvantages in digital readiness.

Ultimately, AI-enabled tax administration offers the potential to ease compliance burdens for SMEs, but its effects are not uniform. Without adequate safeguards, human oversight, and targeted support, automation may entrench existing asymmetries rather than alleviate them. In this respect, the success of AI in tax administration depends not only on technological capability, but also on its alignment with the institutional and practical realities faced by SMEs.

5. CHALLENGES FOR WESTERN AUSTRALIAN SMEs IN AI-DRIVEN TAX ADMINISTRATION

Building on the description of the ATO's reforms, this section shifts from system design to lived experience. It focuses on Western Australian SMEs as a case context in which digital service delivery can improve accessibility for some while intensifying exclusion risk for others, particularly where geography, connectivity, and capability constraints remain salient.

5.1 The Western Australian SME case study

The digital revolution in tax administration is not a far-off possibility. It is here, and Western Australia's SMEs stand at a pivotal crossroads. With AI-driven services by the ATO, e-invoicing, and centralised online portals promising to streamline operations, cut errors, and boost cash flows, an unprecedented opportunity exists to transform how businesses operate. Yet, if the various participants in the tax system proceed without addressing key challenges, there is a risk that the divide will be deepened between tech-empowered urban enterprises and their under-resourced rural counterparts.

In substantial centres like Perth, where robust broadband, digital fluency, and forward-thinking business operators are the norm, the advantages are clear. Imagine AI tools that quickly pinpoint discrepancies in Goods and Services Tax (GST) returns, flag hidden

⁴⁰ Mohammad Alawamleh, Natalie Shammas, Kamal Alawamleh and Loiy Bani Ismail, 'Examining the Limitations of AI in Business and the Need for Human Insights Using Interpretive Structural Modelling' (2024) 10(3) *Journal of Open Innovation: Technology, Market, and Complexity* 100338, 8.

rebates, and even forecast cash flow issues, turning tax compliance from a tedious chore into a strategic asset. No longer will businesses waste precious time wrestling with paperwork or making endless trips to the post box. Instead, they can focus on growth, innovation, and carving out a competitive edge in today's fast-paced market.

But in this instance, it is important not to be seduced by the glitter of digital efficiency without recognising its limits. In regions like the Pilbara, where consistent connectivity remains a challenge, even the most sophisticated AI dashboards become useless when the internet is down for hours or days. For many SMEs that have long relied on legacy systems honed over decades, the sudden leap to e-invoicing is not just a technological upgrade. It is a disruptive overhaul that demands steep learning curves and significant IT investments, and can cause serious operational hiccups.

Beyond these technical and financial hurdles lies a deeper, human challenge. As one community member poignantly stated in the Have Your Say survey regarding the Robodebt scheme:⁴¹

Robodebt killed much of my trust in public services. Trust is gradually being redeemed through compensation and action, but it's too little, too late, for too many.

This stark reminder illustrates that once trust is eroded, even well-intended remedial actions may not suffice to restore it fully. It is not enough to simply implement new policies or technologies; it is also necessary to demonstrate genuine accountability and care.

Similarly, beyond the technical and financial hurdles of digital transformation lies a deeper, human challenge. Many SME operators in Western Australia are the proud custodians of family-run enterprises, deeply embedded in their communities. In June 2019, an estimated 35,720 small businesses in Western Australia were owned by individuals from culturally and linguistically diverse (CaLD) backgrounds.⁴² Given their reliance on stable and predictable regulatory environments, these businesses are justifiably wary of opaque algorithms and centralised data systems. Concerns about privacy breaches, algorithmic bias, and irreversible errors are not unfounded, particularly for those who may already face systemic challenges in navigating complex compliance frameworks. To address these apprehensions, there must be a firm commitment to robust governance frameworks featuring auditable AI models, decentralised data controls, and transparent policies. Accountability should not be reduced to a mere platitude but upheld as a fundamental principle ensuring trust and fairness in the evolving digital tax landscape.

In both the practical and the human dimensions of this shift, one imperative stands out: trust. It is built on a foundation of past performance, maintained through transparent practices, and safeguarded by accountable actions. By embracing these values, ensuring that AI systems are clearly explained, fairly regulated, and truly accessible, it will be

⁴¹ Department of the Prime Minister and Cabinet, *How Might Artificial Intelligence Affect the Trustworthiness of Public Service Delivery?* (Australian Government Long-Term Insights Briefing, 2023) 31; *Report of the Royal Commission into the Robodebt Scheme* (Final Report, July 2023) ('*Report of the Royal Commission into the Robodebt Scheme*').

⁴² Department of Local Government, Sport and Cultural Industries (WA), *Culturally and Linguistically Diverse Small Business Owners in Western Australia* (April 2021).

possible to harness the full potential of the digital future and rebuild the bridges of trust that hold communities, businesses, and institutions together.

Yet, trust alone will not overcome the rural-urban divide in digital readiness. While businesses in Perth can readily tap into workshops and training programs, regional enterprises are often left grappling with spotty internet and minimal local support. Bold, government-industry partnerships are called for that invest in stronger broadband, deploy mobile 'digital labs', and even explore satellite-based connections. A one-size-fits-all mandate will not suffice. Mining operations in Kalgoorlie, for instance, may need reliable offline solutions during connectivity outages, while urban cafes might require tailored training programs for staff unfamiliar with AI-driven platforms.

Finally, the shift from tangible paperwork 'IRL' to digital platforms 'URL' is not just inevitable. It is transformative. But to ensure this evolution benefits every corner of Western Australia's business landscape, inclusivity must be championed. Subsidies, incentives, phased implementation timelines, and comprehensive digital literacy initiatives for smaller or rural businesses are not optional; they are essential.

The promise of AI-driven tax administration is nothing short of revolutionary. It can cut costs, expedite payments, and free up precious time for strategic planning. Yet, to turn this promise into a shared reality, it is necessary to confront the barriers head-on and invest wisely in infrastructure, training, and transparent governance. By uniting efforts to build a secure, equitable, and technologically advanced framework, it will be possible to ensure that every business, from the centre of Perth to the far reaches of the Pilbara, can thrive in the new digital era.

Taken together, the Western Australian SME context illustrates how the same AI-enabled administrative reform can generate asymmetric effects. Measures that reduce friction for well-resourced and digitally capable businesses may instead increase friction for SMEs operating under infrastructure constraints, limited administrative capacity, or low digital confidence. This asymmetry matters because it is the informal institutional layer, particularly perceptions of procedural fairness, accessibility, and trust, that plays a central role in shaping tax morale. For this reason, the next section consolidates these issues into a structured assessment of implementation and governance risks, rather than revisiting similar concerns across multiple parts of the article.

Table 1: ATO AI Initiatives: Administrative Benefits, Institutional Risks, and WA SME Implications

ATO AI Initiative	Intended Administrative Benefit	Potential Institutional Risk	Likely WA SME Implication
Automated data-matching and Anomaly Detection	Faster identification of inconsistencies; reduced manual review	Perceived surveillance; fear of 'false positives'; trust erosion if errors occur	Higher anxiety / compliance burden; risk of over-correction or defensive compliance
AI-supported risk profiling and case selection	More targeted compliance activity; efficiency gains	Opacity in decision logic; perceived unfairness or bias	SMEs may feel 'pre-judged'; reduced willingness to engage openly with ATO
Digital-first service channels (online portal, chat / virtual assistance)	Convenience; reduced transaction costs; scalability	Exclusion where capability / connectivity is weak; 'accessibility gap'	Regional / rural SMEs face friction, delays, and higher reliance on agents
Pre-fill and automated nudges	Reduced errors; smoother filing	Nudges may feel coercive; limited contestability	SMEs comply for safety rather than understanding; weaker procedural trust
Increased automation in reviews and correspondence	Timelier responses; standardised outputs	One-size-fits-all interactions; reduced human discretion	SMEs struggle to explain context; frustration and disengagement

5.2 Implementation challenges

This section evaluates the specific challenges faced by the public sector in adopting AI. These challenges span across several critical areas, including technological implementation, governance, ethical considerations, and the complexities of regulatory compliance. Through this lens, the article aims to provide insights into how public institutions can navigate the hurdles of AI adoption while striving for efficiency, transparency, and fairness in service delivery.

The integration of AI in public service delivery has become a critical area of focus for researchers, drawing attention to various challenges that may impede its effective adoption. Al-Mushayt⁴³ identifies a multifaceted set of hurdles, such as the scarcity of AI experts, limited computational resources, a lack of trust, and issues with AI interpretability. These factors contribute to the complexity of implementing AI

⁴³ Omar Saeed Al-Mushayt, 'Automating E-Government Services with Artificial Intelligence' (2019) 7 *IEEE Access* 146821, 146828.

technologies effectively within public services. Furthermore, Janssen and Kuk⁴⁴ discuss the role of algorithmic governance in introducing biases into policymaking, emphasising how such biases can undermine the integrity and fairness of decisions. Adding to this discourse, Kuziemski and Misuraca⁴⁵ point out that privacy concerns and fairness issues are significant obstacles in the public sector's adoption of AI. These challenges highlight the need for a cautious approach to AI integration, ensuring that it enhances rather than compromises public governance and trust.

In view of the variety of challenges mentioned above, it becomes clear that addressing the challenges associated with AI in public service is not just necessary but urgent. The research conducted by the above researchers, followed by numerous findings by many other researchers⁴⁶ underscores the potential pitfalls that must be navigated to ensure that AI technologies not only enhance service delivery but also uphold principles of fairness and transparency. As AI's presence grows across various sectors, it is essential to maintain a vigilant and ongoing assessment of its impact. This continuous evaluation is crucial for mitigating any negative outcomes that might compromise public trust and the overall efficacy of AI applications in governance. Ultimately, the aim should be to harness AI's potential responsibly, ensuring it acts as a lever for improvement rather than a source of inequity.

In the above context, this section has distilled two fundamental dimensions encapsulating the challenges within the AI adoption in public sectors: those associated with implementation and those tied to control and governance.

Despite extensive research and discussion in both academic and practice circles over the past 50 years, the successful implementation of technological solutions remains a challenging and often unpredictable endeavour. This is particularly evident in the case of AI implementation, where a 2023 study by Mergel and co-authors⁴⁷ highlighted a significant gap, in that there is insufficient research examining how government policies and intentions translate into effective outcomes through the actual processes of implementation. The study suggests that understanding the practical application of policies, and how they are executed on the ground and integrated into existing systems, is crucial. Without this understanding, there is a risk that even well-intended policies, like AI in this case, might not achieve their intended effects, thereby undermining the potential benefits of AI in public administration.

⁴⁴ Marijn Janssen and George Kuk, 'The Challenges and Limits of Big Data Algorithms in Technocratic Governance' (2016) 33(3) *Government Information Quarterly* 371, 373.

⁴⁵ Maciej Kuziemski and Gianluca Misuraca, 'AI Governance in the Public Sector: Three Tales from the Frontiers of Automated Decision-Making in Democratic Settings' (2020) 44(6) *Telecommunications Policy* 101976.

⁴⁶ Virginia Dignum, 'Responsible Autonomy' (2017) *arXiv:1706.02513*; Bernd W Wirtz, Jan C Weyerer and Benjamin J Sturm, 'The Dark Sides of Artificial Intelligence: An Integrated AI Governance Framework for Public Administration' (2020) 43(9) *International Journal of Public Administration* 818; Amal Ben Rjab and Sehl Mellouli, 'Artificial Intelligence in Smart Cities: Systematic Literature Network Analysis' in Soumaya Ben Dhaou, Lemuria Carter and Mark Gregory (eds), *Proceedings of the 12th International Conference on Theory and Practice of Electronic Governance* (Association for Computing Machinery, 2019) 259; Kriti Priya Gupta, 'Artificial Intelligence for Governance in India: Prioritizing the Challenges Using Analytic Hierarchy Process (AHP)' (2019) 8(2) *International Journal of Recent Technology and Engineering* 3756.

⁴⁷ Ines Mergel, Helen Dickinson, Jari Stenvall and Mila Gasco, 'Implementing AI in the Public Sector' (2023) *Public Management Review* (advance) 2.

Specifically concerning the integration of AI, which many public authorities might not be thoroughly versed in, there exists an element of surprise, which warrants further discussion. This element of surprise often stems from the unexpected challenges that arise during the implementation process, such as unforeseen technical limitations, resistance from staff, or mismatches between the AI technology and the existing infrastructure.

5.2.1 *Workforce capability and the AI skills gap*

It is evident that the adoption of AI in the public sector demands a workforce composed of a greater number of experts, specifically those with high-level AI skills to oversee its integration. The Committee on Technology of the National Science and Technology Council, through an official report,⁴⁸ has highlighted the critical need for such talent. This report underscores the urgency of cultivating a highly skilled workforce capable of advancing AI development and implementation in the public sector. Building on this, President Biden's executive order in October 2023⁴⁹ on the 'Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence' not only reaffirms this need but also mandates actionable steps. The executive order establishes a government-wide AI talent surge, directing federal agencies to rapidly recruit AI professionals and to provide AI training for employees at all levels across relevant fields. This directive is a clear and robust commitment to transforming public sector services by embedding AI technology at their core, reflecting a proactive approach to harness AI's potential to enhance governmental efficiency and responsiveness.

Ironically, despite the high demand for AI talent, a significant paradox hampers its widespread adoption. AI is celebrated for its capacity to automate tasks that are often monotonous and repetitive, making it highly suitable for roles that generally have difficulty attracting human workers. Yet, the primary obstacle to its extensive deployment is not the technology itself but a pronounced skills gap within the workforce. A 2024 Salesforce⁵⁰ study, based on a survey of 600 IT professionals from Australia, France, Germany, the UK, and the US, sheds light on this issue. The findings reveal that the public sector faces a more acute AI skills gap compared to other industries, underscoring the critical need for targeted educational and training initiatives to equip public sector workers with the necessary AI competencies. This strategy is essential for harnessing AI's full potential to transform public services and improve efficiency.

This study highlights a significant issue on the current scarcity of professionals with the advanced technical skills necessary to effectively deploy and manage AI systems. This shortage is a major barrier to unlocking the full transformative potential of AI across industries. It is clear from the findings that there is an urgent need to expand and enhance educational and training programs. There must be a focus on cultivating a workforce that is not only skilled in AI technologies but also adept at integrating these systems into

⁴⁸ National Science and Technology Council, *Preparing for the Future of Artificial Intelligence*, above n 16.

⁴⁹ Executive Office of the President (US), *Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence*, Executive Order 14110 (Biden), 88(210) *Federal Register* 75191 (30 October 2023).

⁵⁰ Salesforce, '6 in 10 IT Workers Report Shortage of AI Skills in the Public Sector' (10 April 2024) <<https://www.salesforce.com/au/news/stories/public-sector-ai-statistics/>> (accessed 30 May 2026).

diverse sectors, skills which are essential for leveraging AI's capabilities to their fullest extent.

In response to the pronounced AI skills gap, the Biden-Harris administration, through the US's Office of Science and Technology Policy (OSTP) and the US Digital Service (USDS), intensified their efforts early in 2024. They launched a significant initiative termed 'A Call to Service for AI Talent in the Federal Government'.⁵¹ This movement aims to recruit dedicated individuals who are eager to leverage AI responsibly to enhance government services. Similarly, the UK has taken concrete steps to address this challenge by allocating a substantial GBP 118 million skills package.⁵² This investment is designed to build a workforce that is capable of harnessing the potential of AI in the future, ensuring that the country remains at the forefront of AI technology and its applications. These measures reflect a strategic commitment by both nations to cultivate a skilled pool of AI professionals, vital for driving innovation and efficiency in public services.

Central to the ATO's struggle is a crippling deficit of in-house AI expertise, a challenge emblematic of a national crisis threatening Australia's competitiveness and governance. A sobering 2024 study by Amazon Web Services (AWS) revealed the severity of this gap: 63 per cent of Australian employers now prioritise hiring AI-skilled talent, yet a staggering 75 per cent report being unable to find the expertise they require.⁵³ This is not merely a staffing shortfall. It is an existential threat to institutions like the ATO, whose mandate to modernise tax administration hinges on deploying AI ethically and effectively.

The AWS findings reveal a systemic failure in Australia's approach to AI readiness. While demand for AI skills surges, 73 per cent of employers, including public agencies, admit they lack the knowledge to design workforce training programs. Compounding this inertia, 76 per cent of workers remain unaware of available AI upskilling opportunities. For the ATO, these statistics are not abstract, they translate into tangible risks. Without skilled personnel to interpret algorithms, audit outcomes, or mitigate biases, the agency risks outsourcing its analytical sovereignty to private vendors, eroding public accountability. Imagine an ATO dependent on opaque, third-party AI systems to assess taxpayer compliance: who assumes liability for errors? How can citizens trust decisions made by 'black box' algorithms?

The implications are dire. The ATO's reliance on external partnerships to fill its skills void creates a governance vacuum, where proprietary systems operate beyond public scrutiny. This undermines the agency's ability to explain AI-driven decisions, rectify errors transparently, or uphold its duty of care to taxpayers. In an era where algorithmic

⁵¹ Deirdre K Mulligan (Principal Deputy US Chief Technology Officer) and Mina Hsiang (US Digital Service Administrator), 'A Call to Service for AI Talent in the Federal Government' (29 January 2024) <<https://www.usds.gov/news-and-blog/a-call-to-service-for-talent-in-the-federal-government>> (accessed 30 May 2026).

⁵² Department for Science, Innovation and Technology, Department for Business and Trade, UK Research and Innovation, British Council and The Rt Hon Michelle Donelan (Secretary of State for Science, Innovation and Technology) (UK), 'Britain to Be Made AI Match-Fit with £118 Million Skills Package' (Media Release, 31 October 2023) <<https://www.gov.uk/government/news/britain-to-be-made-ai-match-fit-with-118-million-skills-package>> (accessed 30 May 2026).

⁵³ Amazon Web Services, 'Accelerating AI Skills: Preparing the Workforce in Australia for Jobs of the Future' (2024).

fairness is synonymous with institutional credibility, the ATO cannot afford to delegate its technological future to market forces.

5.2.2 *Financial viability and sustained funding*

The narrative surrounding AI and related technologies as drivers of efficiency has reached a pivotal moment, particularly due to a recent strategic increase in government funding for technology investments. This government-led capital infusion underscores technology's vital role in improving public sector operations and aligns with ambitious goals to modernise, and research indicates that substantial government funding can significantly speed up the adoption process.⁵⁴ Similarly, the adoption of renewable energy technologies has faced comparable fiscal hurdles, often stemming from insufficient government support.

Yet, despite this urge in better financial support, a historical backdrop of persistent budget cuts paints a contrasting picture. The study by Yang and co-authors⁵⁵ vividly illustrates this dichotomy, highlighting a deep-rooted challenge: without a consistent and adequate financial commitment, the government's potential to leverage technology effectively remains just out of reach. Consistent with this theme, Ebrahim and Irani⁵⁶ in an earlier context identified a similar stumbling block in the adoption of e-government solutions, where insufficient funding emerged as a critical barrier. This recurrent theme highlights a cyclical struggle within the public sector to secure the necessary resources for technological empowerment.

Together, these points underline a cyclical struggle within the public sector to secure necessary resources for technological empowerment. This recurring theme suggests that while strategic funding boosts provide temporary momentum for technology adoption, sustained and substantial financial support is crucial to overcome the systemic constraints that hinder long-term technological advancement in the public sector.

Building on the ATO's success (discussed in section 4.1 above), a noteworthy outcome of consistent investment is the agency's ability to implement advanced digital capabilities, most prominently in AI-driven analytics, to improve both compliance and service delivery. By committing to a forward-thinking technological agenda, the ATO has streamlined processes such as tax return filing and fraud detection, reducing administrative burdens while enhancing accuracy. This strategic approach highlights a key lesson: when government agencies receive reliable, long-term financial backing, they can develop and maintain cutting-edge systems that not only optimise internal operations but also strengthen public trust. However, the true measure of the ATO's digital transformation hinges on whether this funding remains steady over time. While recent investments have facilitated promising advances, the enduring impact of these initiatives depends on continued resource allocation.

⁵⁴ Shanjun Li, Lang Tong, Jianwei Xing and Yiyi Zhou, 'The Market for Electric Vehicles: Indirect Network Effects and Policy Design' (2017) 4(1) *Journal of the Association of Environmental and Resource Economists* 89, 104.

⁵⁵ Xiaolei Yang, Lingyun He, Yufei Xia and Yufeng Chen, 'Effect of Government Subsidies on Renewable Energy Investments: The Threshold Effect' (2019) 132 *Energy Policy* 156, 156.

⁵⁶ Zakareya Ebrahim and Zahir Irani, 'E-Government Adoption: Architecture and Barriers' (2005) 11(5) *Business Process Management Journal* 589, 593.

5.2.3 *AI safety, bias, and data integrity*

A major issue with AI systems is that they can inadvertently learn and replicate the biases present in the data used to train them.⁵⁷ In real-world situations, which are dynamic and complex, these AI systems may face scenarios that were not well represented in their initial training. This lack of comprehensive data can cause the AI to misinterpret important information, leading to unintended and sometimes harmful outcomes.

When AI systems are exposed to misleading examples or encounter conditions not foreseen during their training, they may make unsafe decisions. This is especially critical in safety-sensitive areas like healthcare, where the consequences of erroneous decisions are particularly severe. For example, Ross and Spates⁵⁸ have discussed how biases in healthcare AI can lead to poorer outcomes for vulnerable groups. A notable study by Obermeyer and co-authors⁵⁹ revealed that algorithms used to select patients for special medical treatments systematically underdiagnosed individuals from particular racial groups.

These examples underline the critical need for AI systems to be meticulously and thoroughly trained to prevent the perpetuation of biases and to maintain safety across all uses. Misinterpreting crucial signals or safety protocols can greatly compromise the reliability of these systems, where precision is paramount. While some researchers, like Mullainathan⁶⁰ and Moschella⁶¹ argue that AI can be less biased than humans, the public sector cannot afford to risk even a slight loss of public trust. Ensuring the fairness and accuracy of AI systems is essential to uphold this trust,⁶² especially when these systems are used in high-stakes public domains.

In the Australian context, the importance of ensuring that AI systems are free from hidden biases becomes especially clear when examining cases such as the Robodebt scandal.⁶³ Although operated by the Department of Human Services rather than the ATO, the Robodebt scheme relied on ATO Pay As You Go (PAYG) income data and illustrates how automated decision-making processes, when applied through flawed methodologies, can produce significant harms. In the case of the Robodebt scheme, errors in data matching led to the wrongful issuance of debt notices, disproportionately

⁵⁷ Shira Mitchell, Eric Potash, Solon Barocas, Alexander D'Amour and Kristian Lum, 'Algorithmic Fairness: Choices, Assumptions, and Definitions' (2021) 8 *Annual Review of Statistics and Its Application* 141, 145; Uwe Peters, 'Algorithmic Political Bias in Artificial Intelligence Systems' (2022) 35 *Philosophy and Technology* article 25, 3; Sina Fazelpour and David Danks, 'Algorithmic Bias: Senses, Sources, Solutions' (2021) 16(8) *Philosophy Compass* e12760, 9.

⁵⁸ Patrick Ross and Kathryn Spates, 'Considering the Safety and Quality of Artificial Intelligence in Health Care' (2020) 46(10) *Joint Commission Journal on Quality and Patient Safety* 596, 597.

⁵⁹ Ziad Obermeyer, Brian Powers, Christine Vogeli and Sendhil Mullainathan, 'Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations' (2019) 366(6464) *Science* 447, 453.

⁶⁰ Sendhil Mullainathan, 'Biased Algorithms Are Easier to Fix Than Biased People', *The New York Times* (6 December 2019) <<https://www.nytimes.com/2019/12/06/business/algorithm-bias-fix.html>> (accessed 30 May 2026).

⁶¹ David Moschella, 'AI Bias Is Correctable. Human Bias? Not So Much' (Information Technology and Innovation Foundation Defending Digital Series No 5, 2022).

⁶² Pedro Robles and Daniel J Mallinson, 'Artificial Intelligence Technology, Public Trust, and Effective Governance' (2025) 42(1) *Review of Policy Research* 11.

⁶³ Terry Carney, 'Robo-debt Illegality: The Seven Veils of Failed Guarantees of the Rule of Law?' (2019) 44(1) *Alternative Law Journal* 4; Karp and Henriques-Gomes, above n 38; *Report of the Royal Commission into the Robodebt Scheme*, above n 41.

affecting vulnerable populations and causing widespread public outcry. This breakdown in trust underscores the very real dangers of relying on AI-driven systems without robust oversight or comprehensive, high-quality training data.

For the ATO, which similarly employs advanced analytics and digital automation to improve compliance and service delivery, the lessons from Robodebt serve as a cautionary tale. Despite its generally strong approach to data governance, the ATO cannot afford to overlook how even minor biases or data gaps could have major consequences for taxpayers. By proactively vetting data sources, validating algorithms, and incorporating rigorous oversight mechanisms, the ATO can mitigate the risk of perpetuating unfair outcomes. This vigilance not only protects citizens but also safeguards the high degree of public trust essential to the ATO's mission, underlining the need for meticulous design and continuous refinement of AI systems in the public sector.

5.3 Governance and regulation

It is critically important to ensure that AI systems are trustworthy and uphold fundamental rights and societal values.⁶⁴ This responsibility extends to all stakeholders involved, especially regulators and oversight bodies who play a key role in maintaining this alignment. Ensuring that technology advances human and societal objectives should be a collective responsibility of both industry leaders and regulatory bodies.⁶⁵ Taeihagh⁶⁶ has argued that managing the risks associated with AI adoption is now a crucial task for governments. Given that the risks of AI technologies often impact society or the government rather than the beneficiaries, ensuring that technology serves human and societal goals should be a shared responsibility between industry and regulators.⁶⁷ This situation often leads to a disparity where the benefits of AI are enjoyed by a select few, while the broader potential costs and harms are distributed across society. This imbalance highlights the urgent need for robust governance and meticulous oversight to ensure equitable outcomes.

In line with this context, it has been observed that the laws and frameworks currently in place were crafted during the industrial era and are ill-suited for the challenges of the early digital age. Wheeler⁶⁸ contends that today's regulatory statutes and structures are based on outdated industrial-era assumptions, which are now lagging behind the rapid advances of the digital platform era. Consequently, these existing rules lack the agility needed to keep pace with the swift development of AI technologies. This situation calls for a proactive overhaul of regulatory frameworks to ensure they are robust, adaptable, and capable of addressing the unique complexities introduced by AI, ensuring that legal provisions are not only reactive but also anticipatory of future technological trends.

The above discussion underscores the longstanding belief that emerging technologies often expose shortcomings in existing regulations or lead to unforeseen legal conflicts.

⁶⁴ Independent High-Level Expert Group on Artificial Intelligence set up by the European Commission, *Ethics Guidelines for Trustworthy AI* (2019).

⁶⁵ Ronald Leenes, Erica Palmerini, Bert-Jaap Koops, Andrea Bertolini, Pericle Salvini and Federica Lucivero, 'Regulatory Challenges of Robotics: Some Guidelines for Addressing Legal and Ethical Issues' (2017) 9(1) *Law, Innovation and Technology* 1, 43.

⁶⁶ Araz Taeihagh, 'Governance of Artificial Intelligence' (2021) 40(2) *Policy and Society* 137, 138.

⁶⁷ Leenes et al, above n 65.

⁶⁸ Tom Wheeler, 'The Three Challenges of AI Regulation', *Brookings* (Commentary, 15 June 2023), <<https://www.brookings.edu/articles/the-three-challenges-of-ai-regulation/>> (accessed 30 May 2026).

This commonly occurs because laws tend to lag behind technological advancements,⁶⁹ creating what is typically known as a regulatory disconnect.⁷⁰ This disconnect leads directly to a fundamental challenge in technology regulation, the dilemma between technology neutrality and legal certainty.⁷¹ Instead of regulating specific technologies, it is more effective to address the adverse effects these technologies may produce. Thus, regulations should abstract away from the details of concrete technologies to maintain sustainability and achieve neutrality.

Addressing this effectively, especially in the context of fast-evolving technologies like AI, requires a deep understanding of science and technology itself, coupled with the foresight to anticipate future developments. Such expertise is crucial for carefully crafting broad, technology-neutral rules that can adapt and remain relevant over time.⁷² By adopting this strategy, a balance can be achieved that not only fosters innovation by avoiding excessive restrictions on technological development but also protects societal interests by mitigating potential negative impacts. Ultimately, the aim is to establish a regulatory framework that is as dynamic as the technologies it governs, ensuring both growth and protection in an increasingly digital world.

Building on these challenges, the ATO provides a salient example of how existing governance structures must adapt to effectively oversee fast-evolving technologies like AI.⁷³ While the ATO has been proactive in modernising its data analytics capabilities, this progress illustrates the broader need for regulatory overhaul. Current statutes can struggle to address potential biases, privacy concerns, and accountability gaps introduced by advanced AI platforms. Consequently, the ATO must navigate an environment where it leverages cutting-edge tools without a fully aligned legal structure to monitor and mitigate possible risks. As these technologies improve, it will be relevant to consider whether the current legislative framework can keep pace with technological change.

In conclusion, it is becoming evident that legislation can be one of the tools available to regulators. A more effective approach often involves a balanced combination of legal frameworks, social norms, market forces, and technological solutions. This multifaceted strategy typically yields superior outcomes compared to relying solely on traditional statutory law.

6. DISCUSSION AND IMPLICATIONS

Western Australia's vast landscape and diverse economic sectors offer a powerful lens through which to examine the influence of institutional factors on tax morale. Although SMEs in this region account for the overwhelming majority of businesses, they also confront unique structural challenges, ranging from inconsistent broadband

⁶⁹ Lyria Bennett Moses, 'Agents of Change: How the Law "Copes" with Technological Change' (2011) 20(4) *Griffith Law Review* 763, 787.

⁷⁰ Roger Brownsword, *Rights, Regulation, and the Technological Revolution* (Oxford University Press, 2008).

⁷¹ Bert-Jaap Koops, 'Should ICT Regulation Be Technology-Neutral?' in Bert-Jaap Koops, Miriam Lips, Corien Prins and Maurice Schellekens (eds), *Starting Points for ICT Regulation: Deconstructing Prevalent Policy One-Liners* (Asser Press, 2006) 77, 83.

⁷² Ronan Hamon, Henrik Junklewitz, Josep Soler Garrido and Ignacio Sanchez, 'Three Challenges to Secure AI Systems in the Context of AI Regulations' (2024) 12 *IEEE Access* 61022, 61031.

⁷³ *Pintarich v Deputy Commissioner of Taxation* (2018) 262 FCR 41; ANAO, *Governance of Artificial Intelligence*, above n 30.

connectivity to industry-specific regulations. Within this environment, the ATO strives to incorporate automated and AI-driven systems to streamline compliance and enhance transparency. Yet the success of these initiatives is far from guaranteed. An understanding of North's Institutional Theory illuminates the dynamics at play, revealing how trust, norms, and values shape taxpayers' willingness to embrace technological change. By considering the interplay between formal rules, such as AI policies or tax laws, and the informal norms that define local business cultures, policymakers stand to gain insights that may bolster tax morale in tangible ways.

6.1 Institutional uncertainty and the Western Australian digital divide

North's seminal perspective emphasises that institutions function as the 'rules of the game', shaping individual and collective behaviour through explicit regulation and the force of shared beliefs. Additionally, North's exploration of how individuals cope with unfamiliar and complex environments resonates strongly with the challenges faced by SMEs in Western Australia as they adapt to AI-driven tax administration. According to North, when confronted with new settings and limited information, people fall back on personal belief systems and subjective interpretations to fill the gaps in understanding. In Western Australia's uneven digital landscape, smaller enterprises frequently encounter unreliable internet speeds or inadequate digital literacy, making the transition to AI-based tax tools far from routine. As a result, these SMEs must navigate unfamiliar technological terrain with only partial, and sometimes skewed, data on how these tools actually work or benefit their operations. This mirrors the vulnerability and heightened uncertainty that North describes, where individuals struggle to adapt decision-making models in situations lacking clear-cut cues and well-established practices.

Moreover, North's emphasis on the critical role of institutions in reducing uncertainty helps explain how discrepancies in digital infrastructure can erode trust. Larger businesses benefit from fibre-optic connections and advanced IT resources, effectively streamlining their adoption of AI-driven tax solutions. Smaller firms, however, may perceive that the system caters primarily to those already well positioned, thus reinforcing a belief that institutional structures (in this case, digital frameworks and policies) are unequally serving different segments of the population. True to North's argument, when the environment remains complex and information is incomplete, subjective perceptions of fairness and legitimacy take centre stage. If formal institutions do not actively address these disparities, SME owners are more likely to rely on personal ideologies or scepticism, ultimately weakening their confidence in new digital reforms.

6.2 Opportunity and risk: AI's dual potential for tax morale

Despite these challenges, AI also presents an extraordinary opportunity to strengthen tax morale in Western Australia. When deployed thoughtfully, technology can enhance transparency by offering real-time tracking of tax filings, automated guidance on industry-specific obligations, and immediate error checks that reduce the need for costly audits. These benefits may resonate strongly with SMEs that are already motivated by a sense of communal responsibility or fairness, values North acknowledges as crucial to human decision-making. Indeed, if businesses perceive that automated systems treat everyone equally, and that their compliance efforts directly contribute to public goods, their intrinsic motivation to pay taxes often increases. By communicating these advantages through user-friendly interfaces and real-time feedback, tax authorities can foster a sense of partnership with SMEs rather than merely imposing rules from above. A well-structured AI platform that explains how tax revenues support local

infrastructure, healthcare, or education can also amplify the positive feedback loop connecting individual actions to community outcomes.

Nevertheless, the introduction of advanced AI tools without adequate oversight poses considerable pitfalls. Over-reliance on algorithms might perpetuate systemic biases embedded in the data or overlook the nuanced realities of particular industries that do not conform neatly to standardised risk profiles. In remote parts of Western Australia, where seasonal variations or one-off events can dramatically alter business operations, any technological rigidity could breed resentment if SME owners feel that their unique circumstances are being dismissed. This risk of 'digital alienation' increases if certain demographics, such as Indigenous-run enterprises or family-owned farming operations in rural areas, perceive themselves as disproportionately disadvantaged by uniform, AI-generated criteria. Trust, once eroded, can be difficult to rebuild, particularly if business owners believe that an impersonal AI system replaces the direct human interaction they might otherwise have with ATO officials.

North's emphasis on the importance of ideological factors further underscores why some SMEs could resist AI-driven taxation. For business owners who view government intervention with suspicion, the rollout of automated monitoring might confirm their worst fears about increasing oversight. Even in the absence of overt bias, the sheer novelty and perceived complexity of AI can feed into broader concerns that the authorities are intruding on aspects of business that previously enjoyed more autonomy. If the costs of adhering to these new technological standards are perceived as high, both financially and in terms of ideological compromise, then compliance may wane.

6.3 Towards inclusive and adaptive governance

What emerges from these considerations is a clear lesson for policymakers and ATO officials: inclusive, adaptive strategies are imperative. Rather than mandating broad AI solutions from the top, a collaborative approach that involves SME associations, regional community leaders, and industry experts can help refine systems to match local conditions. This inclusive approach can identify the 'pain points' specific to regional Western Australia, whether connectivity, training, or industry-specific anomalies, and address them early in the policy design. Adaptive governance, in which pilot programs gather feedback from a representative sample of SMEs, helps fine-tune AI algorithms and user interfaces while simultaneously signalling that the ATO values input from local voices. Doing so not only optimises the technology but also reinforces the idea that formal institutions are responsive to the realities and norms shaping the business community.

It is equally crucial to preserve human oversight mechanisms, even as AI handles a growing share of tax-related tasks. SMEs must have recourse to speaking with trained personnel who can review complex or ambiguous cases. When entrepreneurs realise that an empathetic human professional remains available to interpret the system's automated responses, trust and engagement levels typically rise. This approach mirrors North's broader point that institutions exist to mitigate uncertainty. An AI platform that flags outliers is helpful; however, a well-informed official who can contextualise an anomaly, taking into account sector-specific challenges or regional conditions, is vital to sustaining genuine goodwill. Such practices ensure that institutional trust remains intact, and that AI is regarded as an empowering tool rather than an inscrutable arbiter.

Western Australia's SME landscape, shaped by geographic, infrastructural, and cultural factors, stands at a crossroads. Adopting AI-driven tax administration could yield significant gains in efficiency, transparency, and compliance. Yet these benefits will only materialise if the technology is accompanied by supportive policies that respect local norms and address the digital divide. By grounding reforms in North's Institutional Theory, policymakers can appreciate the profound role that trust, shared values, and perception of fairness play in motivating tax behaviour. This vantage point highlights the need for collaborative policymaking, attentive infrastructure investment, and the retention of a vital human touch. When formal policies align with informal norms, and when technology is seen as a facilitator rather than a distant enforcer, SMEs are far more likely to embrace reforms enthusiastically. AI thus has the potential to do more than automate tasks; it can strengthen the very institutional fabric that underpins a robust tax morale, paving the way for sustained economic vitality across Western Australia's diverse regions.

7. CONCLUSIONS

Western Australia's unique challenges, and its vast geography, economic diversity, and uneven digital infrastructure, demand a nuanced approach to integrating AI-driven tax systems for SMEs. While AI holds the potential to revolutionise tax compliance by automating tedious tasks and delivering actionable insights, its success must be rooted in trust and adaptation to local realities. Without addressing SMEs' legitimate concerns about digital infrastructure, and bureaucratic opacity, even the most advanced technologies will fail to gain traction. Policymakers and practitioners must act decisively to ensure AI becomes a catalyst for efficiency, not a source of alienation.

7.1 Policy and practice recommendations

To harness AI's transformative power while safeguarding trust, Western Australia's stakeholders should adopt the following imperative strategies:

Prioritise data privacy and security

Given SMEs' acute sensitivity to data risks, exacerbated by unreliable connectivity, governments must enforce unassailable encryption standards and explicit consent frameworks. A cautionary example is the Robodebt program, where errors in data handling and perceived lack of transparency eroded public trust and underscored the broader dangers of flawed automated systems. In the context of AI-driven tax administration, SMEs must be assured that their financial data is shielded from breaches and misuse, particularly in remote areas where distrust of centralised systems persists. Proactive transparency about data practices can help mitigate scepticism, ultimately fostering confidence in AI tools.

Invest in tailored training and infrastructure

AI cannot deliver value if SMEs lack the tools or skills to use it. Policymakers ought to collaborate with industry leaders to design hyper-localised training programs, whether through in-person workshops in the Kimberley or low-bandwidth resources for the Wheatbelt. Concurrently, subsidising hardware upgrades must be prioritised to bridge the digital divide. Only by addressing Western Australia's infrastructure gaps can SMEs fully leverage AI's efficiency gains.

Embed human oversight and engagement

AI can appear impersonal, especially if automated flags or decisions go unexplained. To counter scepticism, it is vital to maintain avenues for human interaction, such as on-call support specialists or regional ATO representatives who can clarify complex regulations or correct misunderstandings. This blend of technology and human judgment reassures SMEs that they are not entrusting their livelihoods to a 'black box', but rather to a transparent, accountable system.

7.2 Future directions for policy and scholarship

Longitudinal studies tracking AI adoption across Western Australian industries must be conducted to evaluate the efficacy of training and policy reforms. Comparative analyses with jurisdictions like Queensland or international peers could reveal best practices in governance and technology rollout. These efforts will enable policymakers to refine strategies, ensuring AI aligns with Western Australia's economic and cultural fabric.

7.3 Conclusion

AI can and must transform Western Australia's tax ecosystem, but only if implemented with unwavering attention to equity, transparency, and local context. By enforcing robust security protocols, investing in inclusive training, and instituting rigorous oversight, policymakers can convert scepticism into trust. As North's work reminds us, institutions thrive when technology aligns with societal norms. For Western Australia, this means bridging digital divides, respecting regional idiosyncrasies, and positioning AI not as a distant mandate but as a tool for empowerment. The path forward is clear. Western Australia must act now to build an AI-driven tax system that is as fair, resilient, and dynamic as the SMEs it serves.

Tax, LLMs, RAGs and some soft logic

Bernie Walrut*

Abstract

This article explores the usefulness of prompt and Retrieval Augmented Generation (RAG) enhanced large language models (LLMs), a form of artificial intelligence, in tax practice. It analyses the advice provided by selected LLMs in respect of three Australian tax problems, with and without Prolog-like rules in the prompt and in localised RAG files. The analysis highlights that without such enhancement the output from LLMs regarding the application of detailed tax rules is of limited use. However, with Prolog-like enhanced prompts, some models provided useful draft advice. The RAG file approach was less useful. The article then discusses how the tax professional might utilise such tools.

Keywords: large language models, utility, tax practice

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1. INTRODUCTION

The field of artificial intelligence (AI) has recently experienced a remarkable resurgence.¹ This resurgence has been largely driven by advancements in generative AI technologies, particularly the emergence of large language models (LLMs) and large multimodal models. This is progressing into the development of large action models,² models that go beyond language-based assistance and can trigger events. There is also a developing body of small language models that can equal or surpass LLMs in some fields.³

Whilst there is extensive publicity about the possible use of LLMs in many fields of endeavour including the law, there is less general discussion about the use of LLMs in day-to-day tax practice. Much of the discussion that is available appears to fall into three main areas: the use of AI by taxation authorities to improve the efficiency and effectiveness of their processes, more general discussion about its impact in policy and the imposition of tax, and a historical discussion about the use of expert systems. In day-to-day tax practice LLMs are being used to assist practitioners in, inter alia, preparation of documents, all forms of written communications, correcting grammar, summarising documents, assisting in research and case analysis,⁴ creating chronologies, court discovery processes and comparing documents.⁵

This article seeks to explore the use of LLMs in tax practice in preparing advice on tax outcomes and/or tax consequences of a given fact situation.⁶ However, the focus of the article is not simply on exploring the use of LLMs and apps that allow the tax practitioner to provide such advice; it also includes a consideration of the use of prompt libraries and LLMs suitably enhanced by the use of local Retrieval Augmented Generation (RAG) files.

In the course of that exploration, the article compares the results of posing three types of queries to a number of LLMs. The first was a query with the basic facts and outcome sought. The second was a query with a prompt enhanced by the relevant rules and where

¹ The modelling and analysis underlying this article were undertaken in December 2024 and January 2025 using the LLM models and applications then available. The article was subsequently prepared, drawing on that analysis, for presentation at the 16th International Atax Tax Administration Conference held in Sydney on 8-9 April 2025. Following feedback from the conference, the article was revised and submitted for publication in May 2025. Since the original analysis was undertaken, many new models have emerged, and the applications used have undergone significant improvement. The law publishers' products, as well as commercially available legal tools, have also improved significantly. This article has been revised to give effect to some of the suggestions of an anonymous reviewer, for which the author is most grateful. All errors and oversights remain the responsibility of the author.

² Lu Wang, Fangkai Yang, Chaoyun Zhang, Junting Lu, Jiaxu Qian, Shilin He, Pu Zhao, Bo Qiao, Ray Huang, Si Qin, Qisheng Su, Jiayi Ye, Yudi Zhang, Jian-Guang Lou, Qingwei Lin, Saravan Rajmohan, Dongmei Zhang and Qi Zhang, 'Large Action Models: From Inception to Implementation' (2025) *arXiv:2412.10047*.

³ Xinyu Guan, Li Lyna Zhang, Yifei Liu, Ning Shang, Youran Sun, Yi Zhu, Fan Yang and Mao Yang, 'rStar-Math: Small LLMs Can Master Math Reasoning with Self-Evolved Deep Thinking' (2025) *arXiv:2501.04519*.

⁴ In Australia there are no commercial tax-specific research LLMs, such as the American and Canadian LLM, Blue J. See Blue J, 'Tax Research You Can Rely On' <<https://www.bluej.com>>.

⁵ Mathew Dahl, Varun Magesh, Mirac Suzgun and Daniel E Ho, 'Hallucinating Law: Legal Mistakes with Large Language Models Are Pervasive', *Stanford University Human-Centered Artificial Intelligence* (11 January 2024) <<https://hai.stanford.edu/news/hallucinating-law-legal-mistakes-large-language-models-are-pervasive>> (accessed 18 January 2025).

⁶ Much the same process may be utilised by tax administrators in tax compliance programs.

required tax rates. The third query embodied the rules (and rates where required) in a RAG file, which was used to enhance the model. In the case of the enhanced prompt and the RAG files, the relevant tax rules were expressed in a form recognisable by a non-algorithmic computer language that has often been used in expert systems, Prolog. In this article such rules and facts are described as Prolog-like rules.⁷

As will be explored briefly in this article, Prolog has been important in the development of expert systems. Also, as will be demonstrated, the enhancement of the LLMs was required to navigate the intricate regulatory landscapes and complex fact situations often associated with providing and preparing advice on tax outcomes and/or tax consequences. This field demands not only precise information retrieval but also a deep contextual understanding of complex tax rules and often complex fact situations.

Prior to discussing the outputs of these LLMs, this article provides a brief history of AI, focusing on early expert systems. Those systems were heavily influenced by methodologies such as first-order predicate logic, non-algorithmic languages and non-coding methods including decision trees and graphs.

2. SOME HISTORY AND CONCEPTS

2.1 AI, machines and languages

The possibility of developing machines that replicate human (thought-like) processes has long been dreamed about and discussed.⁸ With the development of modern machines has come the development of high-level computer languages that provide the programmer with a language more like human language and free the programmer from the need to undertake programming with intricate steps and memory management.⁹

Many AI commentators describe in some detail Alan Turing's work from the 1940s, how the 1956 Dartmouth Summer Workshop at Stanford University 'marked the beginning of the artificial intelligence enterprise', and how that workshop name, 'artificial intelligence'¹⁰ was adopted.

George Luger provides an overview of the areas in which AI can be applied as: game playing, automated reasoning and theorem proving; expert systems, natural language understanding and semantic modelling; modelling human performance; planning and robotics; and machine learning.¹¹

⁷ The rules and facts in that form were run in SWI Prolog using Swish at <<https://swish.swi-prolog.org>> and the runs produced the expected answers. However in this article the emphasis is not on the programming but expressing the rules and facts in a soft logic form. The reason for using Prolog-like rules is that they express the relationships more simply and in a manner long used in expert systems, as will be described.

⁸ George F Luger, *Knowing Our World: An Artificial Intelligence Perspective* (Springer, 2021) ('*Knowing Our World*'). This discussion does not consider the early discussions about natural language modelling and processing.

⁹ Ibid 14. These languages include C, Java and Python.

¹⁰ See ibid 58-60 on the derivation of that expression.

¹¹ George F Luger, *Artificial Intelligence: Structures and Strategies for Complex Problem Solving* (Addison Wesley, 4th ed, 2002) ch 2 ('*Artificial Intelligence*').

Notwithstanding periods of intense interest, there have also been long periods when AI research and development has dwindled, sometimes described by the AI community as AI winters.¹²

The texts in the area commonly break the elements of AI and machine learning down into: problem solving (commonly using various search techniques); knowledge representation, reasoning and planning; the use of model-based reasoning and solving under uncertainty and over time; learning, including from examples, using probabilistic models and reinforcing the learning; and communicating, perceiving and acting including the use of natural language processing, communication and recognition models.¹³ One example of problem solving using model-based learning is the use of expert systems.

In the broader commercial world (including in legal, accounting and tax practice), machine learning is widely used in software to enable an improved experience for the user, with some software learning about the user's behaviour after its first use. After the software has been in use for a period of time it begins to predict what the user wants to do.¹⁴ In legal practice the use of AI appears to have focused, so far, on the areas of document assembly, due diligence, contract analysis, automated discovery, natural language searching and attempting to predict the outcome of litigation.¹⁵

2.2 Expert systems

2.2.1 Introduction

At its simplest, an expert system is '[a] computer program designed to model the problem-solving ability of a human expert'.¹⁶ The General Problem Solver by Newell, Shaw and Simon developed between 1955 and 1959¹⁷ is usually described as the first attempt to separate problem-solving methods¹⁸ from knowledge of the problem.¹⁹ Expert systems have historically had two elements: knowledge from a human expert²⁰ and code that puts this knowledge in a form that a computer may apply to solve similar problems.²¹ Some add the interface or other aspects of the computing system as a third

¹² Luger, *Knowing Our World*, above n 8, 223; David C Brock, 'Learning from Artificial Intelligence's Previous Awakenings: The History of Expert Systems' (2018) 39(3) *AI Magazine* 3, 4.

¹³ Luger, *Artificial Intelligence*, above n 11.

¹⁴ Jason Bell, *Machine Learning: Hands-On for Developers and Technical Professionals* (Wiley, 2014) 4.

¹⁵ See AI Legal Assistant, 'The Gold Standard in Legal Productivity' <<https://legalassistant.au>> (accessed 24 December 2024) for a longer list.

¹⁶ John Durkin, *Expert Systems: Design and Development* (Prentice-Hall, 1994) 7. Some prefer to call them knowledge-based systems. See Brock, above n 12, 14; Xianzhe Yang and Changsheng Zhu, 'Industrial Expert Systems Review: A Comprehensive Analysis of Typical Applications' (2024) 12 *IEEE Access* 88558.

¹⁷ A Newell, JC Shaw and HA Simon, *Report on a General Problem-Solving Program* (Rand Corporation, 1958, rev 1959) available at: <https://archive.org/details/bitsavers_randiplP15roblemSolvingProgramFeb59_1757450/page/n3/mode/2up>.

¹⁸ A logic-based or heuristic search. See Brock, above n 12, 5.

¹⁹ Luger, *Artificial Intelligence*, above n 11, 20; Durkin, above n 16, 7; Haocheng Tan, 'A Brief History and Technical Review of the Expert System Research' (2017) 242 *IOP Conference Series: Materials Science and Engineering* 012111, 1; Brock, above n 12, 5. As Brock (at 8) describes, this became known as knowledge engineering.

²⁰ Referred to as domain knowledge or the knowledge base, which involves storing the facts and the rules.

²¹ Luger, *Artificial Intelligence*, above n 11, 20; Durkin, above n 16, 7; Yang and Zhu, above n 16, 88559.

element.²² Most expert systems involve a particular representation of modelled knowledge, known as production rules, the ‘if then statements’,²³ or the ‘conditional+result’ structure.²⁴ The expert knowledge is a combination of a theoretical understanding of the problem and a collection of heuristic problem-solving rules that experience has shown to be effective in the domain of knowledge.²⁵

A very recent review of the use of expert systems in the industrial field highlights that recent innovations in the use of convolutional neural networks and support vector machines may be incorporated into expert systems to ‘offer more intelligent and efficient decision support’.²⁶ It emphasised that some of the more modern systems use learnt outcomes or other sources of information to assist with the reasoning²⁷ in addition to or beyond that provided by the expert.

Most expert systems to date have been written for specialised expert-level domains and clearly defined problem-solving strategies. They have been applied in many areas including medicine, education, business, design and science. Wagner, in a 2017 article using qualitative analysis of a large body of expert systems cases in the literature, described expert system research as one of the ‘longest-running, and most successful areas of ongoing research within the AI field’ since the 1980s.²⁸ Wagner described the use of expert systems by industry,²⁹ showing that the use of expert systems by legal services in the population studied was very small (constituting 0.6 per cent of the total use across the industries described) and in accounting services it was much more significant (constituting 10.9 per cent).

One of the advantages of expert systems is that they produce more consistent results than humans.³⁰ They have also been used to assist human experts, by assisting with routine tasks, assisting in managing complexities and assisting in addressing issues that may not be readily recalled.³¹ They often provide precise solutions.³²

Yang and Zhu recently described some of the limitations of modern expert systems, such as being dependent on expert knowledge, the potential for errors, the requirement of significant time and resources, the need for specialist maintenance and updates, and the narrow scope of their application.³³ These appear to be some of the reasons for the ongoing limited take-up of these systems by legal and tax professionals.

2.2.2 Expert systems and current generative AI

Yang and Zhu further highlight that ‘[t]he current expert systems are not fully developed in integrating with emerging technologies. With the application of deep learning

²² Tan, above n 19, 2; Yang and Zhu, above n 16, 88559.

²³ Brock, above n 12, 9. He also points out that this process is recognised as having limits.

²⁴ Tan, above n 19, 2.

²⁵ Luger, *Artificial Intelligence*, above n 11, 20.

²⁶ Yang and Zhu, above n 16, 88559.

²⁷ Ibid 88561.

²⁸ William P Wagner, ‘Trends in Expert System Development: A Longitudinal Content Analysis of Over Thirty Years of Expert System Case Studies’ (2017) 76 *Expert Systems with Applications* 85, 85.

²⁹ Ibid 87.

³⁰ Durkin, above n 16, 8; Brock, above n 12, 8.

³¹ Durkin, above n 16, 11.

³² Yang and Zhu, above n 16, 88558.

³³ Ibid 88563.

technologies to expert systems, while enhancing the decision-making capabilities, the interpretability of expert systems has decreased'.³⁴

Legal expert systems (including tax systems) require a consideration of not only the legislation but also the various court decisions in the area and guidance from the taxation authorities. They require each to be broken down to a series of rules. In some situations, they require weightings to be attributed to different answers, particularly where more than one answer is available for each question.

2.3 Prolog

Prolog is one of the declarative languages based on predicate calculus. The name stands for programming in logic³⁵ and it is based on Horn clauses.³⁶ The difference between Prolog and the command-based languages is simply described. In Prolog the programmer tells the computer *how* to do something and in the command-based languages the programmer tells the computer *what* to do.³⁷ Prolog is based on facts and rules and the relationship between objects; the rules are often described as a database.³⁸

Rules in Prolog are expressed in the following manner:³⁹

friends(X,Y):- likes(X,Z), likes(Y,Z).⁴⁰

This may be interpreted as X and Y 'are friends if there exists a Z such that X likes Z and Y likes Z'.⁴¹ The facts are expressed in a like manner:⁴²

likes(george,kate).

likes(george,susie).

likes(susie,wine).

likes(george,wine).

Applying the foregoing rule, as Susie (X) and George (Y) both like wine (Z), on these facts they are friends.⁴³ If in the first two facts the order of the names was reversed then Kate and Susie would be friends as they both like George.

³⁴ Ibid 88581 (references omitted).

³⁵ Luger, *Artificial Intelligence*, above n 11, 538.

³⁶ I Gupta and G Nagpal, *Artificial Intelligence and Expert Systems* (Mercury Learning, 2020). A Horn clause consists of a result at its head and a set of conditions in its body.

³⁷ Ibid 359.

³⁸ Ibid 362.

³⁹ In Prolog variables use upper case; otherwise lower case must be used.

⁴⁰ The ':-' represents 'if', a comma represents 'and' and a semi-colon represents 'or'. An underscore in such a rule indicates no value is attributed to that item.

⁴¹ Luger, *Artificial Intelligence*, above n 11, 606.

⁴² In each example the first-named person likes the second-named person or item.

⁴³ Luger, *Artificial Intelligence*, above n 11, 604-608 gives a fuller description. The foregoing can be tested at <<https://swish.swi-prolog.org>>.

3. LARGE LANGUAGE MODELS

3.1 Introduction

The following describes LLMs succinctly:

LLMs are based on a transformer architecture and are characterized by their large size with billions of parameters. They have shown a comprehensive language understanding and the ability to produce text that is difficult for humans to distinguish from authentic human text in a wide range of language tasks.⁴⁴

As to their use in the professions that are centred on detail, a historian recently suggested:

[M]achine learning on enormous data sets is a science of particulars, more like, say, history than physics. With its data-driven, rather than reductionist, focus, this form of artificial intelligence threatens precisely the professions centered on particularity, on granular empirical knowledge, clinical knowledge, legal knowledge – and potentially historical knowledge.⁴⁵

Notwithstanding the promise and threat to some professions, on some occasions the output of an LLM may be meaningless. Whilst not a true word salad, something is wrong or missing from the logic; it is hallucinating. The LLM does not understand what it produces; the LLM simply applies probabilistic computations to create strings of text.

3.2 Some more history

As highlighted above, the current LLMs owe their development to the evolution of the transformer architecture.⁴⁶ Prior to that, work on natural language processing utilised a number of models, including statistical models (eg, n-gram), various forms of neural networks (including feedforward, recurrent, long short-term memory and gated recurrent units), knowledge-based models and contextual language models.⁴⁷ The other aspect to highlight in respect of LLMs is that, unlike the procedural languages and descriptive languages, LLMs are based, as already highlighted, on a probabilistic relationship between words.

The release of the GPT models and conversational AI ChatGPT in 2022 caught the attention of the general public. It is suggested that at the time of preparation of this

⁴⁴ Nils Constantin Hellwig, Jakob Fehle and Christian Wolff, 'Exploring Large Language Models for the Generation of Synthetic Training Samples for Aspect-Based Sentiment Analysis in Low Resource Settings' (2025) 261 *Expert Systems with Applications* 125514, 1 (references omitted).

⁴⁵ Matthew L Jones, 'AI in History' (2023) 128(3) *American Historical Review* 1360, 1361.

⁴⁶ Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N Gomez, Łukasz Kaiser and Illia Polosukhin, 'Attention Is All You Need' (Conference Paper, 31st Conference on Neural Information Processing Systems, 4-9 December 2017). The transformer model is itself a type of neural network. See Aymen El Amri, *LLM Prompt Engineering for Developers: The Art and Science of Unlocking LLMs' True Potential* (FAUN, 2023) 37.

⁴⁷ El Amri, above n 46, 26; Wayne Xin Zhao, Kun Zhou, Junyi Li, Tianyi Tang, Xiaolei Wang, Yupeng Hou, Yingqian Min, Beichen Zhang, Junjie Zhang, Zican Dong, Yifan Du, Chen Yang, Yushuo Chen, Zhipeng Chen, Jinhao Jiang, Ruiyang Ren, Yifan Li, Xinyu Tang, Zikang Liu, Peiyu Liu, Jian-Yun Nie and Ji-Rong Wen, 'A Survey of Large Language Models' (2024) *arXiv:2303.18223* (accessed 29 December 2024).

article there were over 5 million people building upon LLMs. They were doing so on platforms like OpenAI, Anthropic, Nvidia and Hugging Face. It was also suggested that the potential of this generation of AI models goes beyond simply natural language processing. It may be used, with varying success, in explaining complex algorithms or academic concepts, building interactive bots, and helping with software development.⁴⁸

Some of the open-source models available were Mistral, Llama and Gemma, and the closed-source models were OpenAI's ChatGPT models,⁴⁹ Cohere and Anthropic. The open-source models were available on platforms like Hugging Face. The closed-source models were available using an API⁵⁰ or often through other applications that access them. Access to those models was also available through various consumer products such as Microsoft Word (CoPilot) and more recently as part of the Apple operating system (Apple Intelligence).

As Bouchard and Peters highlighted, even the most powerful LLMs, such as GPT-4, rarely had domain-specific knowledge and often struggled with large volumes of data. All models may generate irrelevant and unreliable responses, or hallucinations.⁵¹ Such hallucinations have attracted attention in the legal industry because of the use of LLM outputs that were not carefully reviewed before their use.⁵² These irrelevant or unreliable responses may be controlled in many cases by changing various settings, as described below, tailoring the prompts, fine tuning and the use of domain-specific knowledge through the use of RAG files. There are occasionally advantages of allowing LLMs to hallucinate, one of which is that it may find a relevant novel solution.

3.3 Some LLM concepts

Reference has been made to current LLMs owing their development to the evolution of the transformer architecture and that they are based on a probabilistic model. At its simplest, a transformer examines multiple words (though sometimes the words are split, even down to letters in some cases) at once and understands the relationship between those words on a probabilistic basis.

A transformer consists of two main mechanisms, an encoder and a decoder. Both the encoder and decoder rely on neural networks and multi-head self-attention mechanisms.⁵³ The multi-head self-attention mechanism facilitates the dynamic weighting of the different words in the input. In doing so the model captures both the relationships and dependencies between the words.⁵⁴ As Ronald highlights, '[a]t its core, self-attention computes attention scores between each pair of words in the input

⁴⁸ Louis-François Bouchard and Louie Peters, *Building LLMs for Production: Enhancing LLM Abilities and Reliability with Prompting, Fine-Tuning, and RAG* (Towards AI, 2024) 662.

⁴⁹ GPT is an acronym for Generative Pre-trained Transformer. See El Amri, above n 46, 37.

⁵⁰ Bouchard and Peters, above n 48, 25, 662. An API is an application programming interface. As that expression implies, it is a piece of code that allows the program to access the functionality of another computer system, such as ChatGPT. See El Amri, above n 46, 37.

⁵¹ Bouchard and Peters, above n 48, 25, 662. Also see Nestor Maslej, Loredana Fattorini, Raymond Perrault, Vanessa Parli, Anka Reuel, Erik Brynjolfsson, John Etchemendy, Katrina Ligett, Terah Lyons, James Manyika, Juan Carlos Niebles, Yoav Shoham, Russell Wald and Jack Clark, *The AI Index 2024 Annual Report* (Institute for Human-Centered AI, Stanford University, 2024) 90 <https://hai.stanford.edu/assets/files/hai_ai-index-report-2024-smaller2.pdf>.

⁵² Dahl et al, above n 5,

⁵³ George J Ronald, *Mastering NLP with Transformers: Practical Techniques for Language Understanding and Generation* (Kindle edition, 2023) [2.2].

⁵⁴ Ibid.

sequence. These attention scores determine how much each word should attend to other words in the sequence when computing its representation. Higher attention scores indicate greater relevance between words'.⁵⁵

The result is a matrix of attention scores, with each element representing the relevance between a query word and a key word. They are then normalised and those 'attention weights are used to compute a weighted sum of the input representations',⁵⁶ resulting in the context vector. This context vector captures the aggregated information from all words in the sequence, weighted by their respective attention weights.

A vector allows for a representation of the text in a numerical form that the model can use. These representations are described as embeddings, which are high-dimensional vectors that capture the semantic relationship.⁵⁷ Tokens are the linguistic unit; they are the numerical representation of the text. As a general estimate, four characters or approximately 0.75 words of English text constitutes a token.⁵⁸

The total number of tokens that may be processed by an LLM model, both input and output, is constrained by the total number of tokens the model may handle.⁵⁹ The number of tokens that may be used in any situation may be further constrained by the user or a particular app.⁶⁰ Token considerations are important in interacting with LLMs, as they can constrain the interaction and its effectiveness.

A number of other parameters relevant in the use of LLMs⁶¹ are temperature, top-p and top-k.⁶² The temperature controls the variability in the output. A lower temperature provides a more focused output, whilst a higher temperature relaxes the constraints on the output and leads to hallucination and sometimes new insights.⁶³ The 'top-p' also controls the diversity in the output: 'It allows for the selection of the most probable words while limiting the selection to a subset of words whose cumulative probability exceeds a certain threshold'.⁶⁴

The 'top-k' parameter is used to control the number of possible choices when selecting the next words in a generated sequence. It limits the pool to the k most probable tokens at each generation step. This parameter enables the user to limit the diversity of the output.

3.4 Retrieval-augmented generation

RAG is another method that allows the user to enhance and improve the accuracy of an LLM response and reduce the likelihood of hallucinations. It improves the answer from an LLM by adding an information retrieval step from an external source before

⁵⁵ Ibid [2.3].

⁵⁶ Ibid.

⁵⁷ Janakiram MSV, 'The Building Blocks of LLMs: Vectors, Tokens and Embeddings', *The New Stack* (8 February 2024) <<https://thenewstack.io/the-building-blocks-of-llms-vectors-tokens-and-embeddings/>> (accessed 27 December 2024).

⁵⁸ El Amri, above n 46, [4.5].

⁵⁹ Ibid. As El Amri notes, the maximum number of tokens permitted by GPT-4 is 8192 and by GPT-3.5 turbo is 4096.

⁶⁰ This is often driven by cost considerations where closed models are used.

⁶¹ They may be included in API calls or set in models running locally.

⁶² El Amri, above n 46, [4.9].

⁶³ Ibid [4.9.1].

⁶⁴ Ibid [4.9.2].

providing the answer. Thus, it supplements the LLM's knowledge by adding relevant data from an external data repository into the LLM's input prompt. The source of data for a RAG may be internal documents, local databases and local code, or a series of published material.

The advantages of using a RAG include the ability to use a tailored source and domain-specific information, the ability to cite the source of the information it is relying on for its answer as part of the answer, and the ability for the internal data sources to be regularly updated to improve the RAG output.⁶⁵ Other methods of improving the output from LLMs include fine tuning⁶⁶ and prompt engineering. Using these methods in combination with a RAG is regarded as essential in adapting LLMs for more general use.

Figures 1 and 2 from LangChain depict the two separate stages in the RAG process.⁶⁷ The first is creating and loading the data by indexing the local repository.

Fig. 1: The RAG File Process

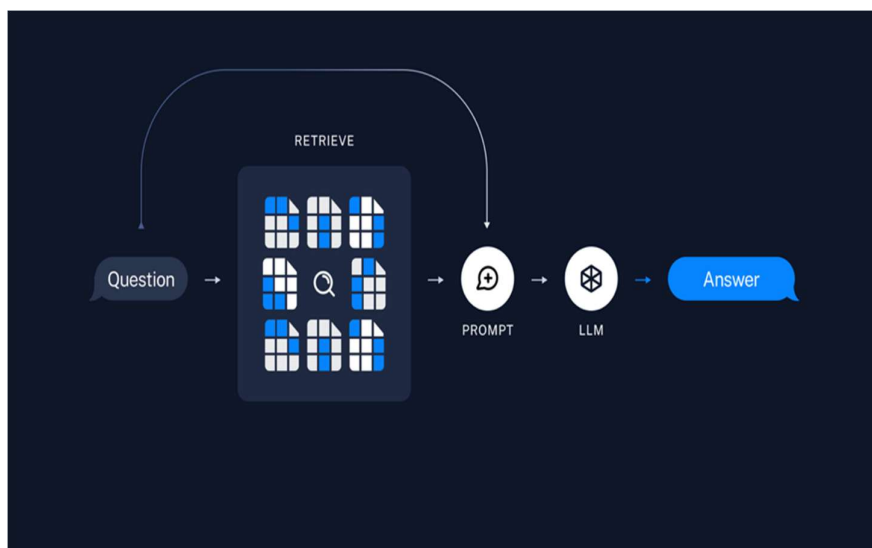


The second stage is using the indexed data by retrieving it from the data store as part of the prompt process and feeding it to the LLM before the LLM provides the answer.

⁶⁵ Bouchard and Peters, above n 48, 282-283.

⁶⁶ Ibid 663-664. This article does not discuss fine tuning.

⁶⁷ LangChain, 'Build a Retrieval Augmented Generation (RAG) App: Part 1' (Tutorial) <<https://python.langchain.com/docs/tutorials/rag/>> (accessed 30 December 2024).

Fig. 2: Use of RAG File Embeddings and Store

As the foregoing highlights, RAGs add a degree of complexity as they add integration complexity, often require data management of the RAG repositories and require accurate embeddings to achieve retrieval accuracy.⁶⁸ There are additional issues or risks with the use of RAGs. It is necessary to ensure the data repository is managed, is up to date and updated correctly, and the vector stores accurately reflect that data.⁶⁹ It is also necessary to ensure the use of the data in the RAG complies with ethical and regulatory requirements.⁷⁰ The use of a firm-based repository of documents may fulfil aspects of those requirements.

3.5 Prompt engineering

Prompt engineering is generally regarded as the simplest way to improve an LLM's performance for specific tasks. It is a quick and adaptable method for guiding the responses with specific inputs.⁷¹ Prompting has been described as vital in this area: 'Mastering the art of crafting *effective* prompts significantly enhances the performance of LLMs without requiring that models undergo underlying improvements'.⁷² Prompt engineering is itself an emerging discipline in the view of some in the LLM field,⁷³ whilst more recently it has been suggested that it will soon be overtaken by the ability of new LLMs.⁷⁴

⁶⁸ Bouchard and Peters, above n 48, 392.

⁶⁹ Ibid 411-412. There are various technical issues with their maintenance discussed at 411-420.

⁷⁰ Ibid 123, 412.

⁷¹ Ibid 391.

⁷² Maslej et al, above n 51, 148-149.

⁷³ El Amri, above n 46, [3].

⁷⁴ Dina Genkina, 'AI Prompt Engineering Is Dead', *IEEE Spectrum* (6 March 2024) <<https://spectrum.ieee.org/prompt-engineering-is-dead>> (accessed 3 January 2025).

By using well-formed and relevant prompts, adjusting the instructions and model parameters, and understanding the underlying model, more consistent and reliable outputs may be achieved.⁷⁵ Some simple steps to improve prompts include starting the prompt with an action verb rather than generic phrases, and providing a clear context in the question by including relevant details, underlying information and specific requirements. The prompt should be specific. It may assist to use role playing by asking the LLM to respond as the professional in the field. Double quotes can be used to emphasise particular words or phrases in the prompt. Text separators for different sections of the prompt may assist the LLM in understanding the structure of the prompt. Examples of the style of the output to be followed will also assist the LLM, as does an indication of the number of words to be included in the output. Other practices that may assist are guiding the model, refining the prompt, trying the prompt in different models, and experimenting and iterating.⁷⁶ OpenAI provides a list of example prompts for use with its models.⁷⁷

It should be remembered when using LLMs that they are probabilistic models trained on vast sets of data and do not understand the data, logic or maths. They just recognise patterns. Where the problems involve symbolic, mathematical or complex reasoning, it often assists to break the problem into steps, or to provide the LLM with examples that are easier to understand to improve the output.⁷⁸

The following is a very brief description of a few methods available to assist in improving prompts. ‘Few shot learning’ allows the LLM to make predictions based on a few examples.⁷⁹ ‘Chain of thought reasoning’ allows the user to provide reasoning for the answer. It may be used in combination with few shot learning⁸⁰ or on occasions with ‘zero shot prompting’.⁸¹ ‘Auto chain of thought prompting’ breaks the problem down into steps. One method is to indicate to the LLM by a suitable prompt that it will be prompted in a stepwise manner. Another method demonstrates to the model the questions and the step-by-step reasoning to be adopted. Both may be described as teaching the model by example.⁸² Another approach that is being developed is to use an LLM to iteratively generate prompts by breaking down the query.⁸³

Self-consistency is a further strategy that can enhance the model and the quality of the output. This involves exploring various paths to the answer using the LLM and can provide cross-checks to ensure the reliability of the output. A recent paper describes a different approach using soft logic (Horn clauses) in querying LLMs. The process described involves starting with a succinct distinct task query and an algorithmic automated stepwise process for repeatedly posing queries to an LLM that explores

⁷⁵ El Amri, above n 46, [3].

⁷⁶ Ibid [18].

⁷⁷ ‘Prompt Examples’, *OpenAI Platform* <<https://platform.openai.com/docs/examples>> (accessed 27 December 2024). See also El Amri, above n 46, [4.10]. There is also an open-source programming tool to test the perplexity of a prompt known as Betterprompt: Stylianos Iordanis, ‘betterprompt’, *GitHub* (2022) <<https://github.com/stjordanis/betterprompt>>. Another is promptfoo: ‘promptfoo’, *GitHub* (2025) <<https://github.com/promptfoo/promptfoo>>.

⁷⁸ El Amri, above n 46, [7].

⁷⁹ Ibid [6.1].

⁸⁰ Ibid [7].

⁸¹ Ibid [8]. ‘Zero shot learning’ means that there have been no prior examples or training on that task. It relies solely on the model’s pre-existing knowledge to generate the output.

⁸² Ibid [9].

⁸³ Maslej et al, above n 51, 150.

alternatives ('or') and adds detail ('and') to a fixed-length process. The process steers the exchange by updating the query with the responses using the LLM. At the completion there is a result and a pattern of reasoning.⁸⁴ So, using the model to assist in creating the prompts, because the model has familiarity with the concepts, enhances the quality of the output, lowering the perplexity. 'Transfer learning' is yet a further method. This method involves enhancing the learning of new problems by applying knowledge from a learnt method.⁸⁵ Avoid surprising the LLM, as the lower the prompt's perplexity, usually the better the output.⁸⁶

As the foregoing highlights, prompt engineering may be taken further with the use of stored queries and query engines, including sub-query engines. They aid the user by enhancing functionality, meeting the complexity of particular situations, and ensuring appropriate and adequate information is provided as a component of the query.⁸⁷ They often build in a number of the developing techniques, described above, that improve the output.

3.6 Local proprietary apps

Using a proprietary application may also assist in the development of a RAG-enhanced model and sometimes the prompt engineering. Those applications often allow for the indexing of the RAG repository, access to various LLM models both public and proprietary with appropriate API keys, and accessing LLM models running locally. The capabilities of these apps vary significantly.⁸⁸

3.7 Some legal LLM offerings: Australia

The three large legal publishing companies in Australia, Thomson Reuters, LexisNexis and Wolters Kluwer, now offer LLMs that include conversational search tools built on their repositories of reports, texts and other source material. These tools appear to be RAGs built on their vast repositories which are further refined by methods that include fine tuning, the control of the various parameters described, and reference citing, extraction and linking.

Thomson Reuters and LexisNexis are also offering tools that will allow the integration of a firm's or practitioner's documents into the LLM tool with the ability to ask questions of the documents, summarise them, create timelines and provide a comparison of the documents. The Thomson Reuters Australia website described its product⁸⁹ in these terms: 'Pose a question and scan through documents in minutes. CoCounsel delivers precise answers with source citations side-by-side for fast, efficient accuracy

⁸⁴ Paul Tarau, 'Full Automation of Goal-Driven LLM Dialog Threads with And-Or Recursors and Refiner Oracles' (2023) *arXiv:2306.14077*.

⁸⁵ El Amri, above n 46, [11].

⁸⁶ Ibid [12.1].

⁸⁷ Bouchard and Peters, above n 48, 397-398.

⁸⁸ In preparing this article using an Apple Silicon Mac, two such applications have been used. One of those applications provides its own server capabilities (Application B) and the other application (Application A) required access to a further application (LM Studio) that ran various downloaded models as the server. The further application was not used on a standalone basis, though it has the capability to be used in that manner. The applications and models used are not named as this is not considered relevant in the context of exploring the use of LLMs in a tax practice.

⁸⁹ Called CoCounsel. This was the description at the time of preparation of this article.

checks, enabling legal professionals to quickly uncover everything from crucial testimonies in extensive transcripts to important terms in complex contracts'.⁹⁰

A few providers offer document review, chat with your documents, drafting document assistance, multi-document review and research assistant facilities trained on Australian law. One such offering is styled AI Legal Assistant.⁹¹ Also some of the legal practice management software now incorporates LLM tools that provide assistance with legal research, assist in drafting documents with prompts and chat with the documents relating to a matter including the correspondence.⁹²

4. APPLICATION TO TAX PRACTICE

4.1 Introduction

The foregoing has provided an introduction to LLMs, some aspects of their use and attributes, RAGs, prompts in the use of LLMs, expert systems, decision trees, and Prolog and its role in creating expert systems. This article will now endeavour to bring that together by describing a study that used those methodologies to ask selected LLMs to provide advice on three different Australian taxation problems, two State and one federal. The study involved putting three different forms of query to LLMs. The first was a relatively simply query, in effect the baseline query. It put the question and facts simply to each model, unaided by an explanation of the rules or the relevant tax rates, where required. The same query was then put to the LLMs with a prompt that included the rules (and tax rates where required), and the third query had the rules (and tax rates where required) in a file (the RAG methodology) that was indexed and used by the LLMs in the process of considering the query.

The approach that was adopted of using Prolog-like rules, in the prompts and RAGs, was along the lines suggested by Eugene Asahara in *Enterprise Intelligence*⁹³ and his online blogs.⁹⁴ Other approaches are to use expert systems in Prolog that use an API call from Prolog to an LLM to improve the output.⁹⁵ A different approach is to use an LLM to extract from a natural language query the relevant information in the form of an attribute-value, feed that information into a Prolog programmed expert system, and then feed that result back into an LLM to create a natural language response.⁹⁶ A yet further approach is to integrate LLMs with structured knowledge bases to improve querying and output.

⁹⁰ Thomson Reuters, 'CoCounsel: Most Advanced Legal Assistant' <<https://www.thomsonreuters.com.au/en-au/products/cocounsel.html>> (accessed 24 December 2024).

⁹¹ AI Legal Assistant, above n 15. There are significant international commercial offerings, such as Harvey and Legora.

⁹² Leap, 'Exclusive AI: Purpose-Built for Law Firms' <<https://www.leap.com.au/legal-ai/>> (accessed 19 January 2025).

⁹³ Eugene Asahara, *Enterprise Intelligence: Bridging the Gaps between Wisdom, Business Intelligence, Knowledge Graphs, and Artificial Intelligence* (Technics Publications, 2024).

⁹⁴ Eugene Asahara, 'Soft Coded Logic' (Blog) <<https://eugeneasahara.com>>.

⁹⁵ See Richard de Rozario, 'Prolog to GPT API', *SWI Prolog* (February 2023) <<https://swi-prolog.discourse.group/t/prolog-to-gpt-api/6280>> (accessed 27 December 2024).

⁹⁶ Sanskar Sehgal and Yanhong A Liu, 'Logical Lease Litigation: Prolog and LLMs for Rental Law Compliance in New York' in Pedro Cabalar, Francesco Fabiano, Martin Gebser, Gopal Gupta and Theresa Swift (eds), *Proceedings 40th International Conference on Logic Programming (ICLP, 2024)* 59 <<https://cgi.cse.unsw.edu.au/~eptcs/paper.cgi?ICLP2024.4.pdf>>.

4.2 Methodology

As foreshadowed, three examples of tax problems were described in natural language and put to LLMs. In each case the problem was relatively simple and could form a base for a more complex problem by breaking down the rules into further rules. In each case five LLMs were used and one with two different temperatures, resulting in six outputs per type of query for each problem question run. Each time, the LLM was asked to write a memorandum of advice in response to the question relating to the particular tax situation described.

Each problem was put to the models using a particular application (described as Application A and Application B) in three stages. As already mentioned, the first stage involved the query and the facts being put to each model (a one shot query), the same query was again put to the models but with a prompt including the rules (and tax rates where required) in Prolog-like form, and the third had the same initial query (the one shot query) with the rules (and tax rates where required) in a RAG file that was indexed (tokenised) by the application and used by the application.

As far as possible the same models were used across the applications based on their description in the application and in the case of the fifth model using two temperatures: one was 0.2 and the other 1.5.⁹⁷ No adjustments were made to the other common parameters (top-p, etc) where permitted by the application.⁹⁸ Each request was set to 10,000 token use.⁹⁹ Similar base prompts were as far as possible used in all questions. Application A allowed the RAG embeddings to be encoded using one of the proprietary models. Application B allowed RAG embeddings to be encoded but it is unknown what embeddings were used. One law publisher model was used. However, it had a character limit and then no ability to use a RAG file. So, it was simply used on the first stage of each problem.

Table 1: Application and Model Details

Application	Model	Designation
A	Proprietary model, an older model	AM01
A	Proprietary model, a more recent model	AM02
A	Proprietary model, apparently a very recent model	AM03
A	Different recent proprietary model	AM04

⁹⁷ A temperature of zero requests no hallucination and 1.5 allows for a reasonable degree of hallucination. Application A was run with a temperature of 0.3 for each of the other models and Application B did not allow a temperature adjustment for the other models.

⁹⁸ Application A did not allow top-p or top-k parameters to be set. LM Studio did allow those parameters to be set as did Application B. Where they could be set they were left at the default settings of top-k 40, top-p 0.95 and min-p 0.05.

⁹⁹ This exceeds the tokens that may be processed by some of the models, as described earlier (n 59 above). It was anticipated that the application would throttle the use of any excess tokens, or the model would ignore the excess.

Application	Model	Designation
A	Publicly available model run locally with a temperature of 0.2	AM05
A	Publicly available model run locally with a temperature of 1.5	AM06
B	Proprietary model, an older model as per AM01	BM01
B	Proprietary model, a more recent model as per AM02	BM02
B	Proprietary model, apparently very recent. It is unclear if it is as recent as AM03.	BM03
B	Different recent proprietary model and not as recent as AM04	BM04
B	Publicly available model run locally with a temperature of 0.2 with similar base to AM05 but AM05 may have been further enhanced	BM05
B	Publicly available model run locally with a temperature of 1.5 with similar base to AM06 but AM06 may have been further enhanced	BM06

4.3 Problem 1: stamp duty

The *Stamp Duties Act 1923* (SA) (SDA) does not impose stamp duty on conveyances of qualifying land. All land is qualifying land other than land used for residential and primary production purposes, as defined in the SDA.¹⁰⁰ There are three criteria to determine whether land is used for residential purposes¹⁰¹ and two criteria for whether land is used for primary production.

There is a definition of the business of primary production but no definition of primary production. The section has been considered by the courts in South Australia in the context of whether land used for student accommodation constituted land used for residential purposes.¹⁰² Otherwise, the relevant provisions have not been considered by the courts and there are no similar interstate provisions.

The question and facts put to the LLMs in each case were as follows:

¹⁰⁰ *Stamp Duties Act 1923* (SA) ('SDA') ss 105A(1), (5).

¹⁰¹ *Ibid* s 105A.

¹⁰² *Perpetual Corporate Trust Ltd v Commissioner of State Taxation* [2022] SASC 7; *Commissioner of State Taxation v Perpetual Corporate Trust Ltd* [2022] SASCA 117.

Stamp duty in South Australia is not imposed on qualifying land.^[103] Please provide a memorandum of advice for a client advising the stamp duty consequences of the conveyance of the following pieces of land using the following prolog like rules by reference to the following identifiers of the land. The structure of the memorandum should be along the following lines. Set out the facts, describe the likely classification of the respective holding and describe the tax consequences of acquiring the land with reasons and computation of any tax consequences of doing so. Use as many words as required to provide all of information requested.

#####

%land(Identifier, Use, Improvements, Zoning, Valuer Generals Primary Production Determination, Capital Value)

land(blackacre, industrial, no_improvements, no_determination, no_determination, 750000).

land(greenacre, residential, residential_character, predominant_use, predominant_use, 2000000).

*land(blueacre, commercial, commercial, residential_character, none, 3000000).*¹⁰⁴

land(greyacre, residential, minor, residential_zoning, none, 2000000).

land(yellowacre, primary_production, minor, residential_zoning, none, 4000000).

*land(brownacre, no_use, no_improvements, primay_production_zoning, primary_production, 350000).*¹⁰⁵

The Prolog-like rules (including duty rates) which were added to the prompt on the second round and included in the RAG file in the third round are set out in Appendix 1, Part C.

It may be expected that the answer would conclude that blackacre and blueacre both satisfy the qualifying land requirement and could be conveyed stamp duty free. The conveyance of the remaining land would attract duty. The duty computations then required an application of the stamp duty rates in Part 1 of Schedule 2, Item 3 of the SDA to the market values provided. There was no guidance provided in the prompt as to whether any particular criteria prevail, save for possibly the order of the criteria or from an understanding of the legislation.

¹⁰³ Note that this is a statement of fact but not further explained. It is left for the model to understand.

¹⁰⁴ This fact situation is apt to create an issue as both the use and improvements are commercial but the zoning is residential.

¹⁰⁵ As described earlier, the underscore in such rules indicates no value is attributed to that item.

4.3.1 Summary of outcomes

The outcome of using each of the LLMs in the manner described is summarised in each of the Tables in Appendix 1 Part A. Appendix 1 Part B provides two examples of the outputs, one using a single shot prompt and the other using Prolog-like rules in the prompt. None of the models using the single shot prompt produced correct or useful output. Some of the responses were nonsensical. The layout and approach adopted by model AM03 was both useful and helpful and could with the necessary corrections be used as a basis for providing the appropriate advice.

Two of the models using Prolog-like rules and rates in the prompts produced meaningful and useful outputs. Both of these outputs could with some minor modifications be used to provide the substantive advice required. The other outputs could not be realistically used. The two useful models were then recent LLMs, highlighting the improvement in the LLMs available. This suggests that the use of well-enhanced prompts from a prompt library with carefully selected models will produce useful results.

The models using a RAG file with Prolog-like rules were disappointing. Two were similar, but otherwise, the output from the models using the Prolog-like rules in the prompt were often better. This was unexpected and is discussed below. It is possible that the RAG approach will be improved by running many examples and fine tuning the model.¹⁰⁶

Table 2 summarises the usefulness of the outputs of the models across the three different processes. The Table splits the outputs in each case into three classes: those that were useful, namely they accurately addressed the issue and could be used as a good basis to provide the required advice (an 'X' is used to indicate those models), those that were close and only required some modifications or corrections to be able to be used to provide the advice (an 'x' is used to indicate those models), and those of limited use. Some would be of use with considerable work and some were so confusing that they would be better discarded. Tables 5 to 7 (Appendix 1 Part A) review each output in much more detail.

Table 2: Stamp Duty Example – Summary of Outcomes

Model	One shot		Full prompt		RAG file	
	Useful	Limited	Useful	Limited	Useful	Limited
AM01		x		x		x
AM02		x	x			x
AM03		x	X		x	
AM04		x	X		x	
AM05		x		x		x

¹⁰⁶ See n 66 above.

Model	One shot		Full prompt		RAG file	
	Useful	Limited	Useful	Limited	Useful	Limited
AM06		x		x		x
BM01		x		x		x
BM02		x		x		x
BM03		x	X			x
BM04		x	X		x	
BM05		x		x		x
BM06		x		x		x
CM07		x				

4.4 Problem 2: land tax

Land tax in South Australia is imposed by the *Land Tax Act 1936* (SA) (LTA) based on the site value of the land. It is not imposed on a person's principal place of residence,¹⁰⁷ primary production land outside the defined rural area¹⁰⁸ and in a number of other situations that are not relevant for the purpose of this example.¹⁰⁹

Aggregation also applies, so if a taxpayer owns more than one piece of land then those properties are aggregated to determine the land tax payable.¹¹⁰ Certain trust holdings are taxed at a different rate to individuals and companies.¹¹¹ Companies may be grouped and treated as a single owner in certain situations.¹¹²

The question put to the LLMs was as follows:

Jim is married to Mary. They have two adult children John and Judy. Jim and Mary control three family trusts. The beneficiaries of those family trusts include Jim, Mary, their children and remoter issue and any companies or trusts in which they have an interest. Interest includes in the case of a company as a shareholder or are owed money and in the case of a trust are a beneficiary or are owed money (called a Relevant Trust). Jim and his family are also interested in the company if a Relevant Trust is a shareholder.

¹⁰⁷ *Land Tax Act 1936* (SA) ('LTA') ss 5(10)(a)-(bb). There are many interstate decisions as to whether land is used as a principal place of residence.

¹⁰⁸ *Ibid* s 4(1)(m).

¹⁰⁹ *Ibid* ss 4, 5.

¹¹⁰ *Ibid* s 8B.

¹¹¹ *Ibid* s 11.

¹¹² *Ibid* Pt 3, Div 6.

Jim proposes to acquire a further property described below and is seeking advice as to the most suitable taxpayer (entity) from a land tax perspective only in which to acquire the property based on the following information.

Please provide a memorandum of advice describing the taxpayer (entity) including a new taxpayer (entity) to acquire the property with the least land tax ongoing cost having regard to the following information.

The structure of the memorandum should be along the following lines. Set out the facts, describe the current tax consequences of the respective holdings, describe the tax consequences of acquiring the new property by any of the existing entities, the recommendation as to the manner of acquisition with reasons and computation of the tax consequences of doing so.

#####

%land(Identifier, Use, Owner, Site_value)

existing_land(blackacre, commercial property, Jim, 2000000).

existing_land(whiteacre, commercial property, Mary, 1500000).

existing_land(brownacre, commercial property, Jims Family Trust, 3000000).

existing_land(greenacre, primary production, Marys Trust, 2500000).

existing_land(blueacre, principal residence, May,^[113] 1250000).

existing_land(yellowacre, residential, Marys Trust, 650000).

existing_land(cityblock, commercial properties, Jim Mary Trust, 4500000).

new_property(highville, commercial shopping centre, _, 3250000).

The Prolog-like rules (including the tax rates) which were added to the prompt on the second round or included in the RAG file in the third round are set out in Appendix 2 Part B.

It may be expected that the answer would conclude that highville could be acquired by a new discretionary trust, a new company or one of the children. The advantage of a company is that, based on the existing facts provided, a company is not currently used by Jim and his family and the tax would be at the standard rates. The property could

¹¹³ Whilst the problem could have been run again with this corrected, it was decided to leave it to highlight how the models treat such a simple typographical error. Most models did not treat May as Mary, notwithstanding the initial facts named the family members but contained no mention of May. May is described as owning the principal residence, which is exempt from land tax, so it added no value to Mary's holdings in any event (LTA, above n 107, s 5(10)(a)). Mary's other holding is a commercial property that would attract land tax.

also be acquired by one or both of the children and would be assessed at the standard rates.

In practice other taxation and control considerations usually result in the acquisition by a new discretionary trust with a corporate trustee. The tax computations would then require an application of the land tax rates. The question did not specify the financial year and therefore one would assume the current financial year.

The land tax rates for the current financial year are not set out in the LTA as the thresholds for their application are indexed and they change yearly.¹¹⁴ Therefore rates are usually ascertained from the Commissioner's website and publications. As also noted above, the facts included a misspelling of Mary's name, which was not corrected.

4.4.1 *Summary of outcomes*

The outcome from each of the LLMs was summarised in Tables similar to those in Appendix 1 Part A.¹¹⁵ Appendix 2 Part A provides an example of the output using the Prolog-like rules in the prompt. A number of the models using the single shot prompt produced a useful output. Some of the responses were nonsensical. The layout and approach adopted by some of them was useful and helpful. They could with the necessary corrections be used as a basis for providing the appropriate advice.

A number of the models using Prolog-like rules and rates in the prompts produced meaningful and useful outputs. AM04 was particularly useful. A number of those outputs could with some minor modifications be used to provide the substantive advice required. The useful models were again the recent LLMs, highlighting the improvement in the LLMs available. This again suggests that the use of well-enhanced prompts from a prompt library with carefully selected models also achieves a suitable output.

The models using a RAG file with Prolog-like rules were again generally disappointing (see the discussion in sections 4.3 and 5.3). The model AM03 would be particularly useful and a couple of the others would be useful with some modification.

Table 3 summarises the usefulness of the outputs of the models across the three different processes. The Table describes the outputs in the same manner as in Table 2.

Table 3: Land Tax Example – Summary of Outcomes

Model	One shot		Full prompt		RAG file	
	Useful	Limited	Useful	Limited	Useful	Limited
AM01	x		x			x
AM02	x			x		
AM03	x		x		X	
AM04	x		X		x	
AM05		x		x		x

¹¹⁴ LTA, above n 107, s 8A, Sch 1.

¹¹⁵ They are not reproduced in this article.

Model	One shot		Full prompt		RAG file	
	Useful	Limited	Useful	Limited	Useful	Limited
AM06		x		x		x
BM01	x		x			x
BM02	x		x		x	
BM03	x		x			x
BM04	x		x			x
BM05		x		x		x
BM06		x		x		x
CM07	x					

4.5 Problem 3: Division 152 – small business relief

Division 152 of the *Income Tax Assessment Act 1997* (Cth) provides for various forms of relief from capital gains tax for small businesses where a number of conditions are satisfied. There are four basic conditions,¹¹⁶ though some have internal alternatives, and each of those conditions involves a number of further requirements.

The four requirements are as follows:

- (a) a capital gains tax event happens in relation to a capital gains tax asset of the taxpayer in an income year;
- (b) the event would (apart from Division 152) have resulted in the gain;
- (c) at least one of the following applies:
 - (i) the taxpayer is a capital gains tax small business entity for the income year;
 - (ii) the taxpayer satisfies the maximum net asset value test;
 - (iii) the taxpayer is a partner in a partnership that is a CGT small business entity for the income year and the CGT asset is an interest in an asset of the partnership;
 - (iv) the conditions mentioned in subsection (1A) or (1B) of section 152-10 are satisfied in relation to the capital gains tax asset in the income year;

¹¹⁶ *Income Tax Assessment Act 1997* (Cth) s 152-10(1).

(d) the capital gains tax asset satisfies the active asset test.¹¹⁷

There are additional rules for interests in partnerships, passively held assets, shares in a company and interests in trusts.¹¹⁸ The satisfaction of the basic conditions allows a taxpayer to choose a 50 per cent reduction¹¹⁹ in the gain and an eligibility to choose rollover relief.¹²⁰ Complete relief from any capital gain is available if the 15-year exemption requirements are satisfied.¹²¹ There is also a small business retirement exemption subject to certain conditions,¹²² up to an individual's lifetime limit of AUD 500,000.¹²³ These two have additional rules.

The question put to the LLMs was as follows:

Jim has sold his business and is keen to know whether the basis conditions for Division 152 of the Income Tax Assessment Act 1997 (Cth) are satisfied. If they are and without further consideration he is entitled to an additional 50% capital gains discount. Please provide a memorandum of advice to be given to Jim describing whether he is entitled to the Division 152 relief. The structure of the memorandum of advice should describe the facts, whether Jim satisfies the basic conditions for the Division 152 and the basis for your decision with a conclusion.

#####

Division 152 Elements

(Entity, CGT Event, Gain, CurrentYearIncome, LastYearIncome, NextYearIncome, GrossAssets, Partner, Conditions1A1B, CGTAsset, AssetPartnership, ActiveAsset)

(Jim, a1, 1900000, 1200000, 2400000, 1000000, 8000000, no, no, no, no, yes)

The Prolog-like rules which were added to the prompt on the second round or included in the RAG file in the third round are set out in Appendix 3 Part B.

It may be expected that the answer would conclude that Jim satisfies the four basic conditions for Division 152 to apply, entitling him to the additional 50 per cent discount allowed by subdivision 152-C. That is on the basis that a CGT event in relation to a CGT asset occurs on the sale of the business, that is, it is CGT event A1 (which is provided in the facts). The facts indicate that there is a CGT gain of \$1,900,000. So the first two basic conditions are satisfied.

The third basic condition provides for a number of alternatives, any one of which satisfy the condition. The first is that the taxpayer is a small business entity. The facts disclose

¹¹⁷ Ibid.

¹¹⁸ Ibid s 152-10(1A), (1B), (2).

¹¹⁹ Ibid sub-div 152-C.

¹²⁰ Ibid sub-div 152-E.

¹²¹ Ibid sub-div 152-B.

¹²² Ibid sub-div 152-D.

¹²³ Ibid s 152-320.

that Jim is selling his business and describes his income in the two preceding years and the current year (a proxy for his turnover). On the facts provided Jim appears to satisfy the small business entity test. The second is that the taxpayer satisfies the maximum net asset test; the net asset test has a limit of \$6,000,000. The facts disclose Jim's net assets are \$8,000,000. Jim therefore fails that test. The facts also indicate that Jim is not in a partnership, nor do subsections (1A) or (1B) apply. On the basis of Jim being a small business entity, he satisfies the third basic condition. The fourth basic condition is that the asset is an active asset. Once again that is a stated fact and is therefore satisfied.¹²⁴

4.5.1 Summary of outcomes

The outcome from each of the LLMs was summarised in Tables similar to those in Appendix 1 Part A.¹²⁵ Appendix 3 Part A provides an example of the output using Prolog-like rules in the prompt. A few of the models using the single shot prompt produced a useful output and with corrections could be used as a basis for advice. Some of the responses were nonsensical.

A number of the models using Prolog-like rules and rates in the prompts produced meaningful and useful outputs. AM03 was particularly useful. A number of those outputs could with some minor modifications be used to provide the substantive advice required. Again, the useful models were recent LLMs, highlighting the improvement in the LLMs available. Again, this suggests that the use of well-enhanced prompts from a prompt library with carefully selected models also achieves a suitable output.

The models using a RAG file with Prolog-like rules were again generally disappointing. Model AM03 was particularly useful and one other would be useful with some modification. Once again, the outputs from the models using the Prolog-like rules in the prompt were often better (see the discussion in sections 4.3 and 5.3).

Table 4: Taxation Example – Summary of Outcomes

Model	One shot		Full prompt		RAG file	
	Useful	Limited	Useful	Limited	Useful	Limited
AM01		x		x		x
AM02	x		X			x
AM03	x		X		x	
AM04		x	x		X	
AM05		x		x		x
AM06		x		x		x
BM01		x		x		x

¹²⁴ As stated earlier, obviously these conditions can be further broken down into their various subrules.

¹²⁵ They are not reproduced in this article.

Model	One shot		Full prompt		RAG file	
	Useful	Limited	Useful	Limited	Useful	Limited
BM02		x	X			x
BM03		x		x		x
BM04		x	x			x
BM05		x		x		x
BM06		x		x		x
CM07	x					

5. CONCLUSION AND SOME IMPLICATIONS

5.1 Introduction

This article has explored the use of LLMs in preparing tax advice that describes the tax outcomes and/or tax consequences of a given fact situation, rather than the more general use of LLMs. The exploration was undertaken against the background of the long use and development of expert systems to provide an analysis of a given situation, often using Prolog. The article then turned to the use of Prolog-like rules as a possible method of enhancing the output from LLMs.

5.2 Discussion and synthesis of the results

In the case of each of the detailed Australian tax fact situations used, two State and one federal, the results highlight that the use of LLMs unaided to assist practitioners in providing detailed tax advice is of limited assistance and on some occasions unhelpful. It was expected that the federal tax query would produce a better output as it was anticipated that the LLM would have encountered more webpages and material discussing federal tax than State taxes, particularly South Australian State taxes. As Tables 2, 3 and 4 highlight, that did not occur.

The outcome at this point is not unexpected, as others have observed, the performance of LLMs ‘deteriorates when dealing with more complex tasks that require a nuanced understanding of legal issues or interpretation of legal texts’ and ‘different models exhibit varying degrees of accuracy and biases’.¹²⁶

Also, for reasons that are not particularly obvious,¹²⁷ save for possibly the more general nature of the question, the unaided prompt in respect of the land tax example provided generally better outcomes than the federal tax query. It was also apparent that the models used did not know the current tax rates, where they were required to aid the analysis,

¹²⁶ Dahl et al, above n 5.

¹²⁷ One of the usual criticisms of LLMs is that they are in effect ‘black boxes’ and they cannot obviously explain their reasoning: Adel Abusitta, Miles Q Li and Benjamin CM Fung, ‘Survey on Explainable AI: Techniques, Challenges and Open Issues’ (2024) 255(Pt C) *Expert Systems with Applications* 124710.

though sometimes the position may be inferred without knowing the rates, which some models demonstrated.

Where the prompt was enhanced with Prolog-like rules (and rates), the LLMs produced a number of useful outputs. Those outputs were well laid out and often included computations (where required) to support the analysis. Such computations were of considerable assistance in understanding the reasoning. They often provided a good basis for providing advice to a client. Occasionally there were minor errors that could be easily corrected. These models tended to be the newer proprietary models.¹²⁸ The output of the open-source models that allowed, through the applications used, the modification of the temperature (and some of the other parameters) were generally not useful.¹²⁹

Obviously enhancing the prompt with detailed rules and rates requires significant effort. Sometimes the models can be used to assist this process. It is suggested that such rules then need to be created as part of a suite of standard prompts (a prompt or snippet library) so that they can be reused and added to, where required, to create further prompts with some of the rules further broken down. By way of example, the division 152 question in this study simply used the four basic conditions. Each of those basic conditions could be broken down into a series of further rules both by reference to the legislative provisions and some decided cases. Also, where this process is adopted, the prompts should incorporate suitable guidance on the structure of the facts to be provided.

5.3 Some of the lessons learned

The more modern proprietary models produced much more useful output than the older models. This suggests that at least for the time being the focus should be on the use of those models. More models have been released since this study was undertaken. However, without the prompts being enhanced with the Prolog-like rules (and rates) the output of the newer models is only marginally better than the results reported in this article.

So, for the moment, the use of LLMs to provide detailed tax advice in respect of detailed fact situations unaided by extensive prompts or RAG files appears unrealistic, as Tables 2, 3 and 4 highlight. This means that tax professionals must put considerable effort into creating extensive prompt libraries or developing simpler prompts utilising RAG files with the rules and rates.

The law publishing company model had a character limit, so this model was not available for use in this manner. With further enhancements to that model and the removal of such restrictions, it is anticipated this model will be even better, being enhanced by the publisher's reservoir of legal material.

The RAG file-enhanced output, in each case, as described, was generally disappointing. The expectation, though with hindsight, possibly unrealistic, was that it would not be

¹²⁸ Whilst the newer models may be much better, their performance may change over time because of updating by the proprietors and in some cases may deteriorate over time. See Maslej et al, above n 51, 143.

¹²⁹ If the analysis was undertaken outside of those applications using one of the more common computer languages, such as Python, then API calls could have been made that included temperature and other control criteria with the enhanced prompt.

much different from the Prolog-like rules enhanced prompt output. As Tables 2, 3 and 4 highlight, that was not the case.

There appear to be several reasons why the RAG approach was disappointing. The following only touches on some of them. The first is that, with rules in the prompt, the LLM is required to consider all the rules. The structured, conditional, if-then form of Prolog-like rules essentially creates an implicit program, and the LLM applies it through something resembling chain-of-thought symbolic execution.

However, when the same rules are provided to the LLMs through RAGs several factors impact their effective use. LLMs rely on semantic search and vector space analysis; RAG simply enhances both. Further, simple or naïve RAG retrieves numerous fragmented context chunks, the chunks of text that have been vectorised, to be put into the LLM context window. This chunking may not only create fragmentation but also may cause loss of interdependence. The fragmentation leads to a lack of understanding and reduces the effectiveness of the RAG approach. So, the RAG approach, in this context, suffers from both rule fragmentation and semantic search problems.¹³⁰

Importantly, in the prompt the Prolog-like rules provide a complete set of logical constraints that must be observed. In a Prolog environment, if the rules are not satisfied, the query fails.¹³¹ In an LLM environment, the model will seek to solve the problem by both attempting to solve the question and using only some of the rules according to the required ranking. In the tax context the difference in approach can be significant. Generally, each of the positive rules must be satisfied; there may also be negative rules that must be satisfied and which may be semantically distant in the model, and there are often exceptions that may also be semantically distant. A detailed consideration of those reasons, and possibly others, could be the subject of a further, more focused technical article.¹³² In conclusion, good outputs from an enhanced prompt can provide considerable assistance in advising on the tax outcomes and/or tax consequences of a given fact situation. Further, once the prompt library is created, much like most precedents, it could be used to produce useful reasoned output that can quickly form the basis of advice.

The implications for tax practitioners are simple. LLMs are useful tools and, when suitably enhanced, they can be used to provide detailed reasoned tax advice. However, they require extensive preparatory work for day-to-day use, whether it is picking the current models or developing the prompt library. As the LLMs improve, those prompt libraries and possibly RAG files could be used with those improved LLMs to improve

¹³⁰ Keith Bourne, *Unlocking Data with Generative AI and RAG: Enhance Generative AI Systems by Integrating Internal Data with Large Language Models Using RAG* (Packt Publishing, Kindle Edition, 2024) chs 8 and 14, and 529.

¹³¹ Luger, *Artificial Intelligence*, above n 11, ch 2, 314-317, 542-543.

¹³² See Gary Marcus, 'The Next Decade in AI: Four Steps Towards Robust Artificial Intelligence' (2020) *arXiv:2002.06177*; Gary Marcus, 'Deep Learning: A Critical Appraisal' (2018) *arXiv:1801.00631*; Subbarao Kambhampati, 'Can Large Language Models Reason and Plan?' (2024) 1534(1) *Annals of the New York Academy of Sciences* 15; Patrick Lewis, Ethan Perez, Aleksandra Piktus, Fabio Petroni, Vladimir Karpukhin, Naman Goyal, Heinrich Küttler, Mike Lewis, Wen-Tau Yih, Tim Rocktäschel, Sebastian Riedel and Douwe Kiela, 'Retrieval-Augmented Generation for Knowledge-Intensive NLP Tasks' in Hugo Larochelle, Marc'Aurelio Ranzato, Raia Hadsell, Maria-Florina Balcan and Hsuan-Tien Lin (eds), *Advances in Neural Information Processing Systems* 33 (Curran Associates, 2020) 9459; Maslej et al, above n 51, 116. I am also indebted to an anonymous reviewer for suggesting that this issue be given further consideration and Anthropic's Claude for some of its suggestions.

the output, though they are likely to require updating. So, whether developed in the form of prompt libraries, with Prolog-like rules and rates, or possibly RAG files with those rules and rates including a suitable library of more limited prompts, that work is likely to be able to be re-used for some years whilst the LLMs are further improved.

The challenges are not only to adopt these tools and develop the prompt libraries (much like current precedent libraries) but to educate tax practitioners on their effective use and more importantly to understand when the output, though looking impressive, is wrong. Whilst the more senior practitioner is likely to be reasonably adept at doing so, the younger practitioner may not be. This is a matter of ensuring that the appropriate process is in place to address this possibility.

As Dahl and co-authors observe, ‘integration of AI in legal practice will require more iteration, supervision, and human understanding of AI capabilities and limitations’.¹³³ This will obviously be a bigger challenge for smaller firms with limited resources than larger firms.¹³⁴ The availability of LLM enhanced tools will also likely lead to greater lawyer retention, as a United Kingdom survey indicated, 92 per cent of students are using LLMs.¹³⁵ Those students will expect such tools to be generally available and, if not, they will move.

6. APPENDICES

APPENDIX 1 PART A: STAMP DUTY EXAMPLE: SUMMARY OF OUTPUT

Table 5: Stamp Duty Example – Single Shot Prompt

LLM	Description of output
AM01	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption or calculate the duty where payable. It provided vague general advice including the following statement: ‘Seeking professional advice from a conveyancer or tax advisor would be beneficial to ensure compliance with stamp duty regulations.’

¹³³ Dahl et al, above n 5.

¹³⁴ It is anticipated the situation in Australia is much like the United Kingdom in this respect, where larger firms look positively to generative AI whilst mid-tier and smaller firms expect it to impact negatively on their profitability. PwC, *Annual Law Firms’ Survey 2024: Innovate, Adapt, Protect: A Blueprint for Sustained Growth* (2024) 6-7 <<https://www.pwc.co.uk/industries/legal-professional-business-support-services/law-firms-survey.html>>.

¹³⁵ Josh Freeman, *Student Generative AI Survey 2025* (Higher Education Policy Institute Policy Note 61, 2025) <<https://www.hepi.ac.uk/2025/02/26/student-generative-ai-survey-2025/>>.

LLM	Description of output
AM02	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or calculate the duty where payable. For some reason it stated that the primary production land 'is a qualifying land for exemption' so brownacre and yellowacre will be exempt. It also stated: 'Please note that the exact computation of stamp duty depends on the rates provided by RevenueSA. The rates may vary and are usually progressive, with the rate increasing as the property value increases.'
AM03	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to correctly calculate the duty where payable. For some reason it stated that the primary production land is exempt and proceeded to incorrectly apply that proposition. It described stamp duty rates that were incorrect and incorrectly calculated any duty. It is not clear where the rates used came from. It was confused by the yellowacre fact situation. The layout of the answer with its facts, individual description and summary was both useful and helpful.
AM04	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. For some reason it stated that the primary production land is exempt and proceeded to incorrectly apply that proposition. It was confused by the yellowacre fact situation and stated that required further investigation. The layout of the answer with the facts, individual description and summary was helpful. It had a final note that 'This advice is based on the provided rules and should be verified against current legislation and regulations.'
AM05	The model assumed that the recipient of the memo was acquiring the land. The explanation for the exemptions and their application was confusing. The model correctly identified blackacre as qualifying land but did not explain why. It was confused by both blueacre and yellowacre. It said blueacre and yellowacre are subject to stamp duty in its discussion but did not calculate any duty consequences.
AM06	The model assumed that the recipient of the memo was acquiring the land. It incorrectly described the SDA and the stamp duty rates including a statement that no stamp duty is payable on a capital value of less than \$750,000. It is not obvious where that rate came from. Blackacre and brownacre are both exempt on that basis. All other land is dutiable. It concluded with, inter alia: 'It is recommended that the client consults with a qualified real estate agent or solicitor to ensure they are aware of all the implications of acquiring these pieces of land. Note: This memorandum is for general purposes only and should not be relied upon as professional advice.'
BM01	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption or calculate the duty where payable. It stated that greenacre as residential land and brownacre as primary production land are exempt. There was no attempt to calculate any duty consequences. The model provided vague general advice including the

LLM	Description of output
	following statement: 'Please note that individual circumstances and specific details may impact the stamp duty consequences, and it is advisable to seek legal advice tailored to the specific situation to ensure compliance with all relevant laws and regulations.'
BM02	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. For some reason it stated that the primary production land 'is a qualifying land for exemption' so brownacre is exempt but not yellowacre because the Valuer-General has not classified it as primary production land. It concluded with: 'We recommend consulting a taxing authority or legal advisor to obtain precise calculations and confirm the duty payable for each property.'
BM03	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. For some reason it stated that the primary production land 'is typically exempt'. It concluded: 'Each parcel of land invokes distinct stamp duty considerations rooted in land use, zoning, and improvements as outlined by South Australian statute and guidelines. It is imperative to consult the most current legislative framework and possibly the South Australian Revenue Office or legal expertise for detailed duty computations and exemptions that could apply. This memorandum summarizes potential liability areas, yet advises further detailed investigation based on specific legislative updates and nuanced legislative interpretations to ensure compliance and potential duty abatements.'
BM04	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. It assumed primary production and residential land is exempt. It concluded that brownacre is most likely to be exempt from stamp duty as qualifying land. Greenacre and greyacre are also likely to be exempt, but further confirmation may be needed. Yellowacre's status is uncertain and requires additional investigation. Blackacre and blueacre are likely to be subject to stamp duty as non-qualifying land. It concluded: 'It is recommended to seek further clarification from the relevant South Australian authorities regarding the exact criteria for qualifying land, especially for properties with mixed characteristics like Yellowacre. Additionally, up-to-date stamp duty rates should be obtained for accurate calculations on non-exempt properties.'
BM05	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. It overlooked brownacre. It stated that greenacre is exempt because it is residential land. It concluded with a recommendation: 'you should consult with a stamp duty specialist or tax advisor to ensure compliance with all relevant laws and regulations.'
BM06	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. It

LLM	Description of output
	misdescribed some of the land, blackacre being described as primary production land. It also said that the disposition will have a capital gains tax consequence. Greenacre and yellowacre will be dutiable as residential land as they ‘fall within a “zero” rate bracket’. It continued: ‘however no benefits apply if either property is later transferred to a commercial use or the other party uses it in such manner.’ The summary was then inconsistent with the analysis in some areas and stated: ‘blackacre and greyacre are likely eligible for an exemption from stamp duty due to primary production zoning; - greenacre benefits zero-rate status but may need re-assessment should use or intended land post transfer occur; - blueacre falls outside of the ‘residential’ bracket due to commercial property being a feature so does fall within Capital Gains Tax; - brownacre is not zoned residential (it has been noted it doesn’t appear eligible for either classification in terms stamp duty). Please note that this memo serves only as an advisory, and you are strongly advised to consult directly with the relevant authorities and/or professional tax advisor prior to any land transaction.’
CM07	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption, or to calculate the duty where payable. It correctly referenced s 105A of the SDA. It concluded that brownacre is exempt as primary production land. It misdescribed the rates on values below \$500,000.

Table 6: Stamp Duty Example – Prompt with Prolog-Like Rules

LLM	Description of output
AM01	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption or to calculate the duty where payable. It stated that greenacre, as residential land, was exempt, greyacre was also exempt as residential land and yellowacre was exempt as it was classified as primary production land with minor improvements and residential zoning. However, brownacre was not exempt because of its primary production zoning. Notwithstanding the Prolog-like rules with the rates and the capital values were provided, the model stated: ‘To calculate the stamp duty payable for each piece of land, we would need to determine the capital value and apply the relevant stamp duty rate based on the total amount.’
AM02	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. In the case of blueacre the model said: ‘it may be considered non-qualifying land, and hence, stamp duty would be payable’. The language in each case was tentative. The model did not calculate the stamp duty payable in respect of each dutiable lot and the one example of the duty consequences it offered was incorrect. It concluded: ‘It is recommended to consult with a tax advisor or legal professional for a detailed analysis.’

LLM	Description of output
AM03	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. It provided a stamp duty calculation for each piece of land it regarded as dutiable in a well laid out memo with a convenient summary of the tax consequences.
AM04	The model correctly classified the land and calculated the duty on the dutiable land. There were some minor computation errors. It was well laid out and much simpler than AM03.
AM05	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption. It exempted primary production land. Where it did calculate the stamp duty it was significantly incorrect.
AM06	The model correctly classified blackacre and blueacre as qualifying land though the explanation was flawed. The model incorrectly classified yellowacre and brownacre as exempt as primary production land. There was no attempt to calculate the duty and the concluding statement oddly said: 'The above calculations assume that the client has no other liabilities or obligations that may affect the tax consequences of acquiring these lands.' It further stated: 'It is recommended that the client consults with a tax professional to ensure compliance with all applicable laws and regulations.'
BM01	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption or to calculate the duty where payable. It stated that greenacre and greyacre were exempt as residential land and yellowacre and brownacre were exempt as primary production land. There was no attempt to calculate the duty.
BM02	The model correctly classified blackacre. It incorrectly classified yellowacre and brownacre as exempt as primary production land. Where it calculated duty it made errors.
BM03	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. It provided a correct stamp duty calculation for each piece of land it regarded as dutiable. It was well laid out.
BM04	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. It provided some incorrect stamp duty calculation for each piece of land it regarded as dutiable. It was well laid out.
BM05	The model failed to classify most of the land accurately for the imposition of stamp duty or the application of the exemptions, or to correctly calculate the stamp duty where it decided the land was dutiable. It exempted yellowacre on the basis that that it was primary production land. It concluded with the statement: 'Please note that these calculations are based on the provided Prolog rules and may not reflect actual legislation or any future changes. It is always recommended to consult with a legal professional for specific advice tailored to your situation.'

LLM	Description of output
BM06	The model failed to classify any of the land accurately for the imposition of stamp duty or the application of the exemptions, or to correctly calculate the stamp duty where it decided the land was dutiable. The explanations for the dutiability and the one application of the duty rates were confused and nonsensical. It concluded with the following statement: ‘If any questions about these analyses arise or if more specifics regarding each property would allow further detailed analysis on this subject matter are required we recommend consulting an official land valuer as they can provide definitive conclusions following specific Prolog rules application to a client’s unique case.’
CM07	The model truncated the question because it exceeded 2,000 characters. It was therefore inappropriate to proceed with the question.

Table 7: Stamp Duty Example – RAG with Prolog-Like Rules

LLM	Description of output
AM01	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemptions or calculate the duty where it contended it was payable. It stated that greenacre as residential land was exempt, greyacre was also exempt as residential land and yellowacre and brownacre were exempt as primary production land. It concluded: ‘The tax consequences of the conveyance of the identified land parcels vary based on their classification. It is important to consider the stamp duty implications before proceeding with the conveyance to ensure compliance with South Australian stamp duty regulations.’
AM02	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemptions. It exempted yellowacre and brownacre as primary production land. All duty computations were incorrect.
AM03	The model correctly classified the land other than brownacre as qualifying or non-qualifying land. It stated that brownacre was exempt as primary production land. It provided a stamp duty calculation for each piece of land it regarded as dutiable in a well laid out memorandum with a convenient summary of the tax consequences.
AM04	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. It stated that blueacre was residential land. There were some duty computation errors. The output was well laid out and much simpler than AM03.
AM05	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. The duty calculations were wrong and confused. The model’s conclusion then inconsistently stated that greyacre was exempt. It concluded: ‘Please note that this memorandum of advice is based on the

LLM	Description of output
	provided Prolog rules and may not reflect any additional or specific circumstances that may apply to each individual case.’
AM06	The model incorrectly classified the land other than blueacre as qualifying or non-qualifying land in its detailed analysis and some of the reasoning was confused. There were no duty calculations.
BM01	The model failed to classify any of the land accurately for the imposition of stamp duty or its exemption or calculate the duty where payable. It stated that greenacre and greyacre as residential land were exempt and yellowacre and brownacre as primary production were exempt. There was no attempt to calculate the duty.
BM02	The model failed to classify blackacre, blueacre, yellowacre or brownacre correctly. It stated that yellowacre and brownacre were exempt as primary production land. All duty computations were incorrect. It concluded: ‘Information is missing on the specific rates and provisions for duty rounding and possible concessions or exemptions beyond the classification-based exemptions provided in the contexts. Detailed provisions regarding specific conditions under South Australian law and possible additional considerations for mixed-use properties also were not provided.’
BM03	The model failed to classify blueacre as exempt and classified brownacre as exempt as primary production land. All duty computations were incorrect. The model concluded: ‘The stamp duty implications depend primarily on the classification of the land parcels in terms of residential and primary production uses. Taxes range from none to substantial based on these classifications and the property’s value.’
BM04	The model correctly classified the land other than blueacre as qualifying or non-qualifying land. It provided some incorrect stamp duty calculation for each piece of land that it regarded as dutiable.
BM05	The model correctly classified the land other than Blueacre as qualifying or non-qualifying land. It provided significantly incorrect stamp duty calculation for most pieces of land it regarded as dutiable.
BM06	The model failed to classify any of the land accurately for the imposition of stamp duty or the application of the exemption, or to correctly calculate the stamp duty. The explanations for the dutiability were confused and nonsensical. An example is the comment provided in respect of blackacre: ‘The stamp duty consequences of acquiring the Blackacre depends entirely on whether this piece is classified under residential, industrial use classifications only or some other form such that you cannot classify as being an agricultural one. Unfortunately without a clear determination what zone your parcel falls within it can be difficult to provide definitive advice here.’
CM07	As this model did not allow for a RAG file the question was not put to it.

APPENDIX 1 PART B**Stamp duty example: an output example – single shot prompt**

****Memorandum of Advice****

****Date: [Insert Date]****

****To: [Client's Name]****

****From: [Your Name]****

****Subject: Stamp Duty Consequences of Conveyance of Various Pieces of Land****

****Facts:****

- The following pieces of land are subject to conveyance:

1. Blackacre: Industrial land with a capital value of \$750,000.
2. Greenacre: Residential land with a capital value of \$2,000,000.
3. Blueacre: Commercial land with a capital value of \$3,000,000.
4. Greyacre: Residential land with a capital value of \$2,000,000.
5. Yellowacre: Primary production land with a capital value of \$4,000,000.
6. Brownacre: Land with no specific use, no improvements, and a capital value of \$350,000.

****Classification of Land:****

1. Blackacre: Classified as industrial land.
2. Greenacre: Classified as residential land with residential character.
3. Blueacre: Classified as commercial land with residential character.
4. Greyacre: Classified as residential land with minor improvements.
5. Yellowacre: Classified as primary production land with minor improvements.
6. Brownacre: Classified as land with no specific use and no improvements.

****Tax Consequences:****

- Stamp duty in South Australia is not imposed on qualifying land. The classification and use of the land play a significant role in determining the stamp duty consequences. Based on the provided information:

1. Blackacre (industrial land): Likely qualifies for stamp duty exemption.
2. Greenacre (residential land): Likely qualifies for stamp duty exemption.

3. Blueacre (commercial land): May not qualify for stamp duty exemption due to the commercial nature.

4. Greyacre (residential land): Likely qualifies for stamp duty exemption.

5. Yellowacre (primary production land): Likely qualifies for stamp duty exemption.

6. Brownacre (land with no specific use): Likely qualifies for stamp duty exemption.

****Computation of Tax Consequences:****

- For the pieces of land that qualify for stamp duty exemption, there would be no stamp duty payable upon conveyance. However, for land that does not qualify for exemption, the stamp duty amount would be computed based on the capital value of the land as per the relevant stamp duty rates in South Australia.

****Recommendation:****

- It is advisable to further verify the specific zoning and use classifications of each piece of land to determine the exact stamp duty consequences. Seeking professional advice from a conveyancer or tax advisor would be beneficial to ensure compliance with stamp duty regulations.

If you require any further assistance or clarification, please do not hesitate to contact me.

Yours sincerely,

[Your Name]

[Your Contact Information]

Stamp duty example: an output example – Prolog enhanced rules

Memorandum of Advice

****To:**** [Client Name]

****From:**** [Your Name/Your Firm]

****Date:**** [Insert Date]

****Subject:**** Stamp Duty Consequences of Land Acquisition in South Australia

****Facts****

You are considering the acquisition of the following parcels of land, each with distinct characteristics as described below:

1. ****Blackacre****: Industrial land with no improvements and no special zoning or determinations. Valued at \$750,000.

2. ****Greenacre****: Residential land with residential character improvements and a predominant use determination. Valued at \$2,000,000.

3. **Blueacre**: Commercial land with residential character zoning and no primary production determinations. Valued at \$3,000,000.
4. **Greyacre**: Residential land with minor improvements and residential zoning. Valued at \$2,000,000.
5. **Yellowacre**: Primary production land with minor improvements and residential zoning. Valued at \$4,000,000.
6. **Brownacre**: Unused land with no improvements, primary production zoning, and a primary production determination. Valued at \$350,000.

Analysis

The stamp duty consequences of acquiring each parcel of land depend on whether the land qualifies as “residential land,” “primary production land,” or other categories under South Australian law. Below, we analyze the classification and tax consequences for each parcel.

1. Blackacre

Classification:

- Use: Industrial.
- No residential or primary production characteristics.
- Not classified as residential land or primary production land.

Tax Consequences:

- Blackacre is **qualifying land** because it does not fall under the residential or primary production categories.
- **Stamp Duty:** Not payable.

2. Greenacre

Classification:

- Use: Residential.
- Improvements: Residential character.
- Determination: Predominant use for residential purposes.

Tax Consequences:

- Greenacre is **residential land** due to its residential use, improvements, and zoning.
- **Stamp Duty:** Payable.
- **Calculation:** Based on the value of \$2,000,000:
- Value exceeds \$500,000.

- Tax = $\$21,330 + (0.055 \times (\$2,000,000 - \$500,000))$

- Tax = $\$21,330 + \$82,500 = \$103,830$.

3. Blueacre

Classification:

- Use: Commercial.
- Zoning: Residential character zoning.
- No primary production determination.

Tax Consequences:

- Blueacre is **residential land** because it has residential character zoning.
- **Stamp Duty:** Payable.
- **Calculation:** Based on the value of \$3,000,000:
 - Value exceeds \$500,000.
 - Tax = $\$21,330 + (0.055 \times (\$3,000,000 - \$500,000))$
 - Tax = $\$21,330 + \$137,500 = \$158,830$.

4. Greyacre

Classification:

- Use: Residential.
- Zoning: Residential.

Tax Consequences:

- Greyacre is **residential land** due to its residential use and zoning.
- **Stamp Duty:** Payable.
- **Calculation:** Based on the value of \$2,000,000:
 - Value exceeds \$500,000.
 - Tax = $\$21,330 + (0.055 \times (\$2,000,000 - \$500,000))$
 - Tax = $\$21,330 + \$82,500 = \$103,830$.

5. Yellowacre

Classification:

- Use: Primary production.

- Zoning: Residential.
- No primary production determination.
- **Tax Consequences:****
- Yellowacre is ****primary production land**** due to its primary production use.
- ****Stamp Duty:**** Payable.
- ****Calculation:**** Based on the value of \$4,000,000:
 - Value exceeds \$500,000.
 - Tax = \$21,330 + (0.055 × (\$4,000,000 – \$500,000))
 - Tax = \$21,330 + \$192,500 = ****\$213,830****.

****6. Brownacre****

- **Classification:****
- Use: No specific use.
- Zoning: Primary production.
- Determination: Valuer General's primary production determination.
- **Tax Consequences:****
- Brownacre is ****primary production land**** due to its zoning and primary production determination.
- ****Stamp Duty:**** Payable.
- ****Calculation:**** Based on the value of \$350,000:
 - Value exceeds \$300,000 but not \$500,000.
 - Tax = \$11,330 + (0.05 × (\$350,000 – \$300,000))
 - Tax = \$11,330 + \$2,500 = ****\$13,830****.

****Summary of Tax Consequences****

<i>Land</i>	<i>Classification</i>	<i>Stamp Duty Payable</i>	<i>Amount (\$)</i>
-----	-----	-----	-----
<i>Blackacre</i>	<i>Qualifying Land</i>	<i>No</i>	<i>0</i>
<i>Greenacre</i>	<i>Residential Land</i>	<i>Yes</i>	<i>103,830</i>
<i>Blueacre</i>	<i>Residential Land</i>	<i>Yes</i>	<i>158,830</i>
<i>Greyacre</i>	<i>Residential Land</i>	<i>Yes</i>	<i>103,830</i>
<i>Yellowacre</i>	<i>Primary Production Land</i>	<i>Yes</i>	<i>213,830</i>

| *Brownacre* | *Primary Production Land* | *Yes* | *13,830* |

****Conclusion****

Based on the above analysis, stamp duty is payable on all parcels except Blackacre, which qualifies as exempt land. For the remaining parcels, the duty payable has been calculated in accordance with the applicable rates. Please let us know if further assistance is required.

Blueacre caused most of the model's difficulties and should be designated as exempt. The foregoing is easily corrected to address that error.

APPENDIX 1 PART C: STAMP DUTY EXAMPLE – PROLOG-LIKE RULES

%Residential land

%land(,,,_).

%residential land

residential_use(Identifier,Use,Improvements,Zoning,):-

land(Identifier,residential,_,_);

land(Identifier,_residential_character_improvements,_,_);

land(Identifier,_,_solely_residential_zoning, _).

%primary production land

primary_production_use(Identifier,Use,_,_Valuer_General_Primary_Production_Determination):-

land(Identifier,primary_production,_,_);

land(Identifier,_,_,primary_production).

% dutiable – it is not qualifying land

stamp_duty_payable(Identifier,_,_,):-

land(Identifier,_,_,_),

residential_use(Identifier,_,_,_);

primary_production_use(Identifier,_,_,_).

% not dutiable – it is qualifying land

stamp_duty_not_payable(Identifier,_,_,):-

land(Identifier,_,_,_),

\+ residential_use(Identifier,_,_,_),

```

\+ primary_production_use(Identifier,_,_,_).

#####

% Stamp Duty Rates
% The legislation requires the amount to be rounded up the amount to the next $100 – this
does not do, it only calculates the rates
%Case1: Amount does not exceed $12,000
stampduty_rate_tax(Amount, Tax) :-
    Amount <= 12000,
    Tax is 0.01 * Amount.

% Case 2: Amount exceeds $12,000 but not $30000
stampduty_rate_tax(Amount, Tax):-
    Amount > 12000,
    Amount <= 30000,
    Excess is Amount - 12000,
    Tax is 120 + (0.02 * Excess).

% Case 3: Amount exceeds $30,000 but not $50,000
stampduty_rate_tax(Amount, Tax):-
    Amount > 30000,
    Amount <= 50000,
    Excess is Amount - 30000,
    Tax is 480 + 0.03 * Excess.

% Case 4: Amount exceeds $50,000 but not $100,000
stampduty_rate_tax(Amount, Tax):-
    Amount > 50000,
    Amount <= 100000,
    Excess is Amount - 50000,
    Tax is 1080 + 0.035 * Excess.

% Case 5: Amount exceeds $100,000 but not $200,000
stampduty_rate_tax(Amount, Tax):-

```

Amount > 100000,

Amount =< 200000,

Excess is Amount - 100000,

Tax is $2830 + 0.04 * \text{Excess}$.

% Case 6: Amount exceeds \$200,000 but not \$250,000

stampduty_rate_tax(Amount, Tax):-

Amount > 200000,

Amount =< 250000,

Excess is Amount - 200000,

Tax is $6830 + 0.0425 * \text{Excess}$.

% Case 7: Amount exceeds \$250,000 but not \$300,000

stampduty_rate_tax(Amount, Tax):-

Amount > 250000,

Amount =< 300000,

Excess is Amount - 250000,

Tax is $8955 + 0.0475 * \text{Excess}$.

% Case 8: Amount exceeds \$300,000 but not \$500,000

stampduty_rate_tax(Amount, Tax):-

Amount > 300000,

Amount =< 500000,

Excess is Amount - 300000,

Tax is $11330 + 0.05 * \text{Excess}$.

% Case 8: Amount exceeds \$500,000

stampduty_rate_tax(Amount, Tax):-

Amount > 500000,

Excess is Amount - 500000,

Tax is $21330 + 0.055 * \text{Excess}$.

APPENDIX 2 PART A

Land tax example: an output example – Prolog enhanced rules

MEMORANDUM OF ADVICE - LAND TAX IMPLICATIONS

1. FACTS

Current Land Holdings:

- Jim personally owns Blackacre (commercial) - \$2,000,000
- Mary personally owns Whiteacre (commercial) - \$1,500,000
- Jim's Family Trust owns Brownacre (commercial) - \$3,000,000
- Mary's Trust owns:
 - * Greenacre (primary production) - \$2,500,000
 - * Yellowacre (residential) - \$650,000
- Jim Mary Trust owns Cityblock (commercial) - \$4,500,000
- May owns Blueacre (principal residence) - \$1,250,000

Proposed Acquisition:

- Highville (commercial shopping centre) - \$3,250,000

2. CURRENT TAX CONSEQUENCES

Individual Holdings:

- Jim: \$2,000,000 - Land tax = \$28,110 + $(2.4\% \times \$0) = \$28,110$
- Mary: \$1,500,000 - Land tax = \$7,570 + $(2.0\% \times \$0) = \$7,570$

Trust Holdings:

- Jim's Family Trust: \$3,000,000 - Land tax = \$40,773 + $(2.4\% \times \$262,000) = \$47,061$
- Mary's Trust: \$3,150,000 - Land tax = \$40,773 + $(2.4\% \times \$412,000) = \$50,661$
- Jim Mary Trust: \$4,500,000 - Land tax = \$40,773 + $(2.4\% \times \$1,762,000) = \$83,061$

3. TAX CONSEQUENCES OF ACQUIRING NEW PROPERTY

Adding Highville (\$3,250,000) to existing entities would result in:

- Jim: Total \$5,250,000 - Significant increase in land tax
- Mary: Total \$4,750,000 - Significant increase in land tax
- Existing Trusts: Would substantially increase their already high tax burden

4. RECOMMENDATION

I recommend establishing a new trust to acquire Highville. Reasons:

1. A new trust would be assessed independently, avoiding aggregation with existing properties
2. The trust would pay land tax on \$3,250,000 which would result in:

$$\text{Tax} = \$40,773 + (2.4\% \times \$512,000) = \$53,061$$

This represents the lowest possible land tax outcome compared to adding the property to any existing entity. The new trust should be structured to ensure it's not grouped with existing trusts for land tax purposes, while still maintaining the desired family control and beneficial interests.

The new structure would result in the lowest ongoing land tax cost while maintaining family control over the asset.

(The foregoing analysis has an error. It includes Greenacre in the computations when it is primary production land and exempt. Once again that is reasonably easily corrected. As also discussed earlier, a company or one of the children would achieve an ongoing lower land tax consequence. However, for other tax reasons a new discretionary trust is more than likely the preferred entity.)

APPENDIX 2 PART B: LAND TAX EXAMPLE – PROLOG-LIKE RULES

% South Australian land tax rates

% Standard Rates - These rates apply to companies and individuals

%Base case: Amount does not exceed \$732,000

standard_rate_tax(Amount, 0) :-

Amount =< 732000.

% Case 1: Amount exceeds \$732,000 but not \$1,176,000

standard_rate_tax(Amount, Tax) :-

Amount > 732000,

Amount =< 1176000,

Excess is Amount - 732000,

Tax is 0.5 * ceiling(Excess / 100).

% Case 2: Amount exceeds \$1,176,000 but not \$1,711,000

```

standard_rate_tax(Amount, Tax) :-
    Amount > 1176000,
    Amount <= 1711000,
    Excess is Amount - 1176000,
    Tax is 2220 + (1.0 * ceiling(Excess / 100)).

% Case 3: Amount exceeds $1,711,000 but not $2,738,000
standard_rate_tax(Amount, Tax) :-
    Amount > 1711000,
    Amount <= 2738000,
    Excess is Amount - 1711000,
    Tax is 7570 + (2.0 * ceiling(Excess / 100)).

% Case 4: Amount exceeds $2,738,000
standard_rate_tax(Amount, Tax) :-
    Amount > 2738000,
    Excess is Amount - 2738000,
    Tax is 28110 + (2.4 * ceiling(Excess / 100)).

% Trust cases - These rates apply to trusts
% Base case: Amount does not exceed $25,000
trust_tax(Amount, 0) :-
    Amount <= 25000.

% Case 1: Amount exceeds $25,000 but not $732,000
trust_tax(Amount, Tax) :-
    Amount > 25000,
    Amount <= 732000,
    Excess is Amount - 25000,
    Tax is 125 + (0.5 * ceiling(Excess / 100)).

% Case 2: Amount exceeds $732,000 but not $1,176,000
trust_tax(Amount, Tax) :-

```

Amount > 732000,

Amount =< 1176000,

Excess is Amount - 732000,

Tax is 3660 + (1.0 * ceiling(Excess / 100)).

% Case 3: Amount exceeds \$1,176,000 but not \$1,711,000

trust_tax(Amount, Tax) :-

Amount > 1176000,

Amount =< 1711000,

Excess is Amount - 1176000,

Tax is 8100 + (1.5 * ceiling(Excess / 100)).

% Case 4: Amount exceeds \$1,711,000 but not \$2,738,000

trust_tax(Amount, Tax) :-

Amount > 1711000,

Amount =< 2738000,

Excess is Amount - 1711000,

Tax is 16125 + (2.4 * ceiling(Excess / 100)).

% Case 5: Amount exceeds \$2,738,000

trust_tax(Amount, Tax) :-

Amount > 2738000,

Excess is Amount - 2738000,

Tax is 40773 + (2.4 * ceiling(Excess / 100)).

APPENDIX 3 PART A**CGT Division 152 example: an output example – Prolog enhanced rules**

MEMORANDUM OF ADVICE

Date: [Current Date]

Re: Jim's Eligibility for Division 152 CGT Relief

FACTS:

- Jim has sold his business
- CGT Event A1 has occurred
- Capital gain of \$1,900,000
- Income history:
 - * Two years prior: \$1,200,000
 - * Last year: \$1,400,000
 - * Current year: \$1,000,000
- Gross assets: \$8,000,000
- The asset is confirmed to be an active asset
- No partnership involvement
- Conditions 1A/1B not applicable
- Not a CGT asset or asset partnership

ANALYSIS OF BASIC CONDITIONS:

1. CGT Event Test (Test A):

✓ SATISFIED

- A CGT event A1 has occurred (business sale)

2. Capital Gain Test (Test B):

✓ SATISFIED

- The gain of \$1,900,000 is greater than zero

3. Small Business Test (Test C):

This can be satisfied through either:

- a) Small Business Income Test:

✓ SATISFIED

- All years' income is below \$2,000,000 threshold:

* Two years prior: \$1,200,000 < \$2,000,000

* Last year: \$1,400,000 < \$2,000,000

* Current year: \$1,000,000 < \$2,000,000

b) Gross Assets Test:

✗ NOT SATISFIED

- Gross assets of \$8,000,000 exceed the \$6,000,000 threshold

4. Active Asset Test (Test D):

✓ SATISFIED

- The asset is confirmed as an active asset

BASIS FOR DECISION:

According to the Prolog rules provided, Jim needs to satisfy all four basic conditions (Tests A, B, C, and D) to qualify for Division 152 relief. While he satisfies Tests A, B, and D, Test C can be satisfied through multiple pathways, and Jim satisfies this through the small business income test, despite not meeting the gross assets test.

The capital gain relief rule requires all conditions to be met, which they are in Jim's case through:

- Valid CGT event (A1)

- Positive capital gain

- Meeting the small business test through income requirements

- Active asset confirmation

CONCLUSION:

Based on the analysis above, Jim DOES satisfy the basic conditions for Division 152 relief. He is therefore entitled to the additional 50% capital gains discount, subject to any other specific requirements not covered in this basic conditions analysis.

Note: This advice is limited to the basic conditions analysis only. Jim should seek additional advice regarding any specific requirements or obligations related to claiming the Division 152 relief.

This model did not directly address the partnership asset alternative or subsections 1A and 1B in Test C, but it interpreted the facts correctly and that these requirements were irrelevant.

APPENDIX 3 PART B

CGT Division 152 example – Prolog-like rules

% As the question focuses on a non partnership interest the partnership aspects and subsections 1A or 1B requirements have not been independently tested.

capitalgainrelief(Entity, CGTEvent, Gain, TwoYearsPriorIncome, LastYearIncome, CurrentYearIncome, GrossAssets, Partner, Conditions1A1B, CGTAsset, AssetPartnership, ActiveAsset):-

```

div152_facts(Entity,_,_,_,_,_,_,_,_),
cgt_event_test_a(Entity,_,_,_,_,_,_,_,_),
cgt_gain_test_b(Entity,_,_,_,_,_,_,_,_),
cgt_gain_test_c(Entity,_,_,_,_,_,_,_,_),
cgt_activeasset_test_d(Entity,_,_,_,_,_,_,_,_,_),!.
cgt_event_test_a(Entity,_,_,_,_,_,_,_,_):-
    div152_facts(Entity,a1,_,_,_,_,_,_,_).
cgt_gain_test_b(Entity,_,Gain,_,_,_,_,_,_):-
    div152_facts(Entity,_,Gain,_,_,_,_,_,_),
    Gain>0.
cgt_gain_test_c(Entity,_,_,_,_,_,_,_,_):-
    cgt_small_business_test(Entity,_,_,_,_,_,_,_,_);
    cgt_gross_assets_test(Entity,_,_,_,_,_,_,_,_);
    cgt_partner_test(Entity,_,_,_,_,_,_,_,_);
    cgt_condition1A1B_test(Entity,_,_,_,_,_,_,_,_).
cgt_small_business_test(Entity,_,_,_,_,_,_,_,_):-
    cgt_twoprior_year_income_test(Entity,_,_,_,_,_,_,_,_),
    cgt_last_year_income_test(Entity,_,_,_,_,_,_,_,_),
    cgt_current_year_income_test(Entity,_,_,_,_,_,_,_,_),
    cgt_current_year_income_test(Entity,_,_,_,_,_,_,_,_).
cgt_twoprior_year_income_test(Entity,_,_,TwoYearsPriorIncome,_,_,_,_,_,_):-
    div152_facts(Entity,_,_,TwoYearsPriorIncome,_,_,_,_,_,_),

```

TwoYearsPriorIncome < 2000001.

cgt_last_year_income_test(Entity,_,_,_,LastYearIncome,_,_,_,_,_):-

div152_facts(Entity,_,_,_,LastYearIncome,_,_,_,_,_),

LastYearIncome < 2000001.

cgt_current_year_income_test(Entity,_,_,_,CurrentYearIncome,_,_,_,_,_):-

div152_facts(Entity,_,_,_,CurrentYearIncome,_,_,_,_,_),

CurrentYearIncome < 2000001.

cgt_gross_assets_test(Entity,_,_,_,GrossAssets,_,_,_,_,_):-

div152_facts(Entity,_,_,_,_,GrossAssets,_,_,_,_,_),

GrossAssets < 6000001.

cgt_partner_test(Entity,_,_,_,_,Partner,_,CGTAsset,AssetPartnership,_)ate:-

div152_facts(Entity,_,_,_,_,_,yes,_,_,_,_),

div152_facts(Entity,_,_,_,_,_,_,yes,_,_,_),

div152_facts(Entity,_,_,_,_,_,_,_,yes,_,_,_).

cgt_condition1A1B_test(Entity,_,_,_,_,_,Conditions1A1B,_,_)ate:-

div152_facts(Entity,_,_,_,_,_,_,yes,_,_,_,_).

cgt_activeasset_test_d(Entity,_,_,_,_,_,_,_,ActiveAsset)ate:-

div152_facts(Entity,_,_,_,_,_,_,_,_,yes).

Is cooperative compliance a solution for enhancing tax certainty for foreign mining enterprises in Africa? An examination of domestic and multilateral models

Christina Allen*

Abstract

This article critically evaluates the suitability of cooperative compliance as a mechanism to enhance tax certainty and revenue collection in Africa's minerals and extractive sector. Drawing on domestic models and multilateral frameworks, it examines the design, objectives and operational requirements of cooperative compliance programs. Particular attention is given to the region's persistent tax challenges in transfer pricing and value added tax administration. The analysis concludes that while cooperative compliance holds promise, its adoption should follow foundational reforms in legislative clarity, administrative capacity and dispute resolution systems. A phased, context-sensitive approach is essential to ensure its effective implementation within Africa's distinct regulatory and economic landscape.

Keywords: cooperative compliance, transfer pricing, value added tax, tax administration, developing countries

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1. INTRODUCTION

For many African countries, minerals and extractive industries have been an important source of tax revenue. During the 2008 financial crisis in South Africa, this sector contributed 8.7 per cent of nominal gross domestic product.¹ The sector's contribution to the broader African region is reflected in the International Monetary Fund's estimate that 10 of the top 15 mining-intense economies are located in Africa.² This trend is expected to continue, as sub-Saharan African countries³ hold over 30 per cent of the world's proven mineral reserves, and the increasing demand for critical minerals in the clean energy transition will further intensify the significance of Africa's energy supply.⁴

Traditionally, Africa's minerals and extractive industries heavily rely on foreign investment, with over 80 per cent of foreign mining enterprises on the continent.⁵ A 2023 survey indicates that several African countries have enhanced their attractiveness to foreign investment – for example, Botswana climbed from 45th of 76 countries in 2019 to 15th of 86 countries in 2023⁶ – and Africa now has a jurisdiction in the top 10 jurisdictions based on the investment attractiveness, trailing only the United States and Canada (four jurisdictions each), yet outpacing Europe.⁷

Despite these positive statistics, political and economic instabilities in several African countries remain enduring concerns of foreign investors.⁸ Adding to these risks are evolving environmental regulations, land claim disputes, protection of designated conservation areas, increasingly stringent labour laws and complex tax regimes. In particular, amendments to tax legislation represent a significant risk for investment decisions in the minerals and extractive sector, where projects require substantial upfront capital outlays and involve extended lead times before achieving profitability.

¹ Davis Tax Committee (Judge Dennis Davis, chair), *Second and Final Report on Hard-Rock Mining for the Minister of Finance* (Report, December 2016) 33 ('*Second and Final Report on Hard-Rock Mining*').

² Giorgia Albertin, Boriana Yontcheva, Dan Devlin, Hilary Devine, Marc Gerard, Irena Jankulov Suljagic, Vimal Thakoor and Sebastian Beer, *Tax Avoidance in Sub-Saharan Africa's Mining Sector* (International Monetary Fund, 2021) 3.

³ Resource-intensive sub-Saharan African countries are Botswana, Burkina Faso, Central African Republic, Democratic Republic of the Congo, Ghana, Guinea, Liberia, Mali, Namibia, Niger, Sierra Leone, South Africa, Tanzania, Zambia, and Zimbabwe: *ibid* 3, n 1.

⁴ International Monetary Fund, 'Digging for Opportunity: Harnessing Sub-Saharan Africa's Wealth in Critical Minerals' (Analytical Note to *Regional Economic Outlook: Sub-Saharan Africa – A Tepid and Pricey Recovery*, April 2024) 2.

⁵ Albertin et al, above n 2, 5.

⁶ Julio Mejia and Elmira Aliakbari, *Fraser Institute Annual Survey of Mining Companies 2023* (Fraser Institute, 2024) 13. The ranking is according to the Investment Attractiveness Index, which evaluates exploration foreign direct investment based on both mineral resources potential and fiscal policies, such as taxation and public regulations. Another attractive foreign investment destination is Morocco, but its investment rankings had declined over the prior three years, moving from 8th of 84 countries in 2021 and 16th of 62 countries in 2022 to 27th of 86 countries.

⁷ *Ibid* 25, measuring against the regional Policy Perception Index, which assesses factors including tax regimes, environmental laws, legal system land claim disputes, local infrastructure, political (in)stability, labour laws, security and geological data.

⁸ See the political and economic considerations in assessing the Subject-to-Tax Rule newly proposed under the Base Erosion and Profit Shifting project of the Organisation for Economic Co-operation and Development (OECD) discussed in Christina Allen, 'Evaluating the Subject to Tax Rule in Nigeria: Implications, Challenges and Strategic Considerations amid Global Tax Reforms' (2024) 78(12) *Bulletin for International Taxation* 462.

Where a tax dispute arises, foreign investors have several avenues for recourse. Domestic mechanisms include the administrative appeal procedure, where a taxpayer lodges a formal objection to initiate an internal review and an administrative mediation procedure, which seeks a negotiated settlement through an independent and impartial mediator within the tax administration.⁹ Independent bodies – such as the judiciary, the tax ombudsman, independent mediators and arbitral tribunals – may also be involved in resolving tax disputes.¹⁰ Cross-border controversies can be addressed through unilateral or bilateral mutual agreement procedures provided in tax treaties.¹¹

Mechanisms to pre-empt tax disputes include domestic public and private rulings issued by tax administrations, advance (or pre-filing) agreements under which a taxpayer obtains a binding determination of an issue prior to lodging a return,¹² and advance pricing arrangements that provide binding predetermined transfer pricing methodologies before transactions occur.¹³ In the African context, foreign investors may also secure tax certainty through investment protection instruments such as domestic investment protection statutes, bilateral investment treaties, treaties with investment provisions and other multilateral or regional frameworks. Large investors can further negotiate bespoke agreements directly with governmental authorities, thereby anchoring greater stability and predictability in both their tax obligations and the broader business environment.

In addition to the dispute resolution and prevention mechanisms outlined above, the United Nations recommends that developing and less-developed countries cultivate a reciprocal relationship of trust and cooperation between tax administrations and taxpayers.¹⁴ This non-binding concept – termed ‘cooperative compliance’ – derives from sociological theory, particularly responsive regulation theory, which posits that ‘the first step towards effective regulation is for the regulator to create a setting in which subjects are stimulated to accept responsibility for regulating themselves in a manner that is consistent with the law’.¹⁵ It is underpinned by perceived procedural fairness on the part of tax administrations and enhanced transparency by taxpayers regarding their tax-related risks. Often summarised as ‘certainty in exchange for transparency’,¹⁶ within this framework taxpayers engage proactively with tax administrations, voluntarily providing information beyond their statutory obligations. In return, tax authorities undertake risk assessments to furnish taxpayers with tax certainty and to direct their resources towards high-risk areas. A cooperative compliance program typically requires taxpayers to be equipped with a robust tax control framework, an internal system

⁹ See United Nations, *Handbook on the Avoidance and Resolution of Tax Disputes* (United Nations, 2021) section 3.4 (*‘Handbook on the Avoidance and Resolution of Tax Disputes’*).

¹⁰ Ibid section 3.5.

¹¹ Ibid ch 4. Non-binding tax dispute resolution mechanisms are recommended in section 6.6.

¹² See the pre-filing agreement program available in the United States in Internal Revenue Service, ‘Pre-Filing Agreement Program’ (last reviewed or updated 2 January 2026) <<https://www.irs.gov/businesses/pre-filing-agreement-program>>.

¹³ In the US case *Eaton Corporation and Subsidiaries v Commissioner of Internal Revenue*, No 21-1569 (Sixth Cir. 2022), the Sixth Circuit Appeals Court held that advance pricing arrangements can be cancelled only according to the terms of revenue procedures.

¹⁴ United Nations, *Handbook on Dispute Avoidance and Resolution*, above n 9, 13, 45.

¹⁵ Maarten A Siglé, Sjoerd Goslinga, Roland F Speklé and Lisette ECJM van der Hel, ‘The Cooperative Approach to Corporate Tax Compliance: An Empirical Assessment’ (2022) 46 *Journal of International Accounting, Auditing and Taxation* 100447, 2 (references omitted).

¹⁶ OECD, *Co-operative Tax Compliance: Building Better Tax Control Frameworks* (OECD Publishing, 2016) 7 (*‘Co-operative Tax Compliance: Building Better Tax Control Frameworks’*).

designed to ensure the accuracy, timeliness and completeness of tax returns and related disclosures. Independent tax experts may be enlisted to test the reliability and robustness of the framework.¹⁷

Given the stated potential of cooperative compliance, this article examines its applicability to African tax systems, particularly within the mining sector. Section 2 discusses the concept and core design features of cooperative compliance, including its objectives, the scope of covered taxes and duties and eligibility criteria for taxpayers. Section 3 explores contemporary multijurisdictional frameworks – termed ‘multilateral cooperative compliance’ – with particular emphasis on initiatives led by the Organisation for Economic Co-operation and Development (OECD) and the European Union.

Building on this foundation, section 4 identifies two principal tax challenges confronting mining enterprises in Africa – transfer pricing and value added tax (used interchangeably with goods and services tax)¹⁸ – and evaluates them against the purported benefits of cooperative compliance, especially for multinational enterprises. It shows, however, that cooperative compliance alone cannot resolve the fundamental drivers of transfer pricing and value added tax disputes. Section 5 reiterates these findings, arguing that genuine tax certainty in Africa will depend first on clarifying transfer pricing rules and applications and streamlining value added tax refund processes free from budgetary constraints. Although cooperative compliance is promoted as a means for tax authorities to concentrate resources on high-risk tax compliance activities, there is scant evidence that it actually reduces administrative costs.¹⁹

2. THE CONCEPT AND DESIGN OF COOPERATIVE COMPLIANCE

In 2002, the OECD established the Forum on Tax Administration to ‘share knowledge, undertake research and develop new ideas to enhance tax administration around the world’.²⁰ Six years later, the Forum on Tax Administration released its *Study into the Role of Tax Intermediaries*, which sought to foster a cooperative, trust-based relationship between large corporate taxpayers and revenue authorities – a concept referred to as the ‘enhanced relationship’.²¹ Under this model, ‘in dealings with

¹⁷ Jeffrey Owens, Anastasiya Piakarskaya, Timoleon Angelos Christodouloupoulos and Olena Sushkova, ‘The Use of Cooperative Compliance for Minimizing Cross-Border VAT/GST Disputes’ (2024) 16(3) *World Tax Journal* 561, 593.

¹⁸ *Ibid* 562, 591.

¹⁹ Dennis de Widt and Lynne Oats, ‘Risk Assessment in a Co-operative Compliance Context: A Dutch-UK Comparison’ [2017] (2) *British Tax Review* 230 (‘Risk Assessment in a Co-operative Compliance Context’); Sjoerd Goslinga, Janneke de Jonge, Maarten Siglé and Lisette van der Hel-Van Dijk, ‘Cooperative Compliance Programmes: Who Participates and Why?’ (2021) 6(2) *Journal of Tax Administration* 95.

²⁰ OECD, ‘OECD Forum on Tax Administration’ <<https://www.oecd.org/en/networks/oecd-forum-on-tax-administration.html>> (accessed 17 May 2026).

²¹ OECD, *Study into the Role of Tax Intermediaries* (OECD Publishing, 2008) 8 (‘*Study into the Role of Tax Intermediaries*’). See also International Fiscal Association (IFA), *IFA Initiative on the Enhanced Relationship: Key Issues Report* (version 2.3, January 2012) 12, which proposes the following definition: ‘The Enhanced Relationship concerns a specifically defined institutional relationship, based on mutually expressed intentions and not on detailed rules, that [taxpayers] and [tax administrations] voluntarily enter into above and beyond their basic legal obligations, which relationship is based on mutual understanding, respect and true co-operation, and has as aim the administration of tax laws to the [taxpayer’s] business in the most efficient and timely manner, assuming full, timely and reciprocal disclosure of relevant tax related

taxpayers, revenue bodies demonstrat[e] understanding based on commercial awareness, impartiality, proportionality, openness through disclosure and transparency, and responsiveness’ and ‘in dealings with revenue bodies, taxpayers provid[e] disclosure and transparency’.²² However, the label ‘enhanced relationship’ risked engendering misunderstandings about the nature of the approach and raising concerns of preferential treatment for select taxpayers, potentially undermining equality in tax treatment.²³ In its 2013 report, the OECD therefore replaced ‘enhanced relationship’ with ‘co-operative compliance’, explicitly framing it as a mechanism to assure compliance.²⁴ Although countries have implemented domestic cooperative compliance programs differently, these programs rest on common design principles.

2.1 Aims and objectives

A cooperative compliance program seeks to secure ‘compliance with tax legislation with particular attention paid to the individual needs and expectations of key taxpayers in order to ensure better conditions for economic activity’ in the tax jurisdiction.²⁵ Its overarching objective is to guarantee the correct amount of tax paid on time.²⁶ Under such programs, taxpayers voluntarily disclose significant business transactions before filing a return and engage in open, non-adversarial discussions with the tax authority to assess transaction risks. Early engagement is presumed to foster responsive, constructive consultations and enables prompt remedial actions when necessary.

Many countries have adopted cooperative compliance regimes.²⁷ For example, Australia’s Annual Compliance Arrangement serves as a model. Large businesses may

information (including positions taken) and leading to the assessment of the correct amount of tax taking into account the spirit and purpose of the tax law (rather than merely the letter of the law) while respecting each parties’ rights and obligations under procedural laws in case of disagreement on what constitutes the correct amount of tax’.

²² OECD, *Co-operative Compliance: A Framework, From Enhanced Relationship to Co-operative Compliance* (OECD Publishing, 2013) 15 (‘Co-operative Compliance’).

²³ Ibid 16.

²⁴ Ibid 13.

²⁵ The phrase is quoted from the Polish cooperative compliance program in Poland: see Ministry of Finance, *Assumptions of the Cooperative Compliance Program* (22 April 2022) <<https://www.podatki.gov.pl/en/cooperative-compliance-programme/assumptions-of-the-cooperative-compliance-programme>> (accessed 28 April 2025). More details about the Polish program can be found in Małgorzata Sęk, ‘Co-operation Programme: A Novelty in the Polish Tax System’ in Ronald Hein and Ronald Russo (eds), *Co-operative Compliance and the OECD’s International Compliance Assurance Programme* (Wolters Kluwer, 2020) 177.

²⁶ OECD, *Study into the Role of Tax Intermediaries*, above n 21, 16.

²⁷ See OECD, *Co-operative Compliance*, above n 22, providing a comparison of cooperative compliance models in Australia, Austria, Canada, Denmark, Finland, France, Germany, Hong Kong, Hungary, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Russia, Singapore, Slovenia, South Africa, Spain, Sweden the United Kingdom and the United States. See also Lotta Björklund Larsen, Karen Boll, Benedicte Brögger, Jaana Kettunen, Tuulia Potka-Soininen, Jukka Pellinen, Mette Brehm Johansen and Kiran Aziz, ‘Nordic Experiences of Co-Operative Compliance Programmes: Comparisons and Recommendations’ (FairTax Working Paper Series No 20, 2018) (discussing Denmark, Finland, Norway and Sweden); Lynne Oats and Dennis de Widt, ‘Co-Operative Compliance: The UK Case – Playing the Long Game’ (FairTax Working Paper Series No 22, 2019); Dennis de Widt and Lynne Oats, ‘Co-operative Compliance: Views of Large Business in the Netherlands and UK’ (FairTax Working Paper Series No 23, 2018) (‘Co-operative Compliance: Views of Large Business’); Goslinga et al, above n 19 (discussing the Netherlands); Marcin Burzec, ‘Cooperative Compliance in Poland: The Question of Equality’ (2024) 58(3) *Review of European and Comparative Law* 117 (discussing Poland); Tina Sever and Tatjana Stanimirović, ‘Can Voluntary Tax Compliance Status Lead to Participation, Transparency and Co-operation?’ (2022) 22(2) *Croatian and Comparative Public Administration* 313 (discussing Slovenia).

enter an Annual Compliance Arrangement on a voluntary basis typically for a three-year term, although there is no fixed duration and either party may withdraw at any time. While the Annual Compliance Arrangement is non-binding, the Australian Taxation Office issues a sign-off letter, that ‘subject to any noted conditions, the tax return for a particular year, or specific periods in the case of [goods and services tax], are closed from further review or audit’.²⁸ Throughout the arrangement, the taxpayer must disclose any material developments so that the Australian Taxation Office can continuously assess the tax risks of covered matters. Annual review meetings provide a forum to discuss emerging risks and mitigation strategies, verify the effectiveness of the taxpayer’s internal controls, and identify any additional information or work required to renew the arrangement. Rather than undergoing formal audits or risk reviews, participants engage with the Australian Taxation Office via the Annual Compliance Arrangement channel. Under the arrangement, they are exempt from both pre-lodgment compliance review and post-lodgment risk reviews or audits for covered tax matters and periods and may qualify for concessional treatment of penalties and interest.²⁹

2.2 Covered taxes and duties

In Australia, an Annual Compliance Arrangement can be concluded for a range of taxes, such as income tax, goods and services tax, excise, petroleum resource rent tax and fringe benefits tax. In other jurisdictions, cooperative compliance programs can be tailored to a single regime (such as transfer pricing) or a discrete tax system (such as corporate tax or value added tax), or they can encompass a broad array of levies, incorporating corporate income tax, value added tax, customs duties, excise duties and other taxes administered by the revenue authority. For example, Singapore’s Assisted Compliance Programme specifically addresses goods and services tax,³⁰ Ireland’s cooperative compliance framework concentrates on refund-related matters within its corporate tax regime,³¹ and Zambia’s initiative is directed exclusively at customs and excise duties.³²

In the sphere of customs and excise duties, the risk profiles established through cooperative compliance can be leveraged to expedite clearance procedures. By shifting from transaction-based controls to a holistic, client-oriented model grounded in the client’s overall compliance, authorities are expected to streamline trade facilitation while maintaining rigorous oversight.

²⁸ Australian Taxation Office, ‘Annual Compliance Arrangements – What You Need to Know’ (last updated 7 November 2018) <https://www.ato.gov.au/businesses-and-organisations/corporate-tax-measures-and-assurance/large-business/in-detail/compliance-and-governance/annual-compliance-arrangements-what-you-need-to-know#What_you_can_expect_to_see_during_the_ACA> (accessed 17 May 2026).

²⁹ Ibid. See also Celeste M Black, ‘Co-operative Compliance Programmes in Australia: Working Towards Justified Trust’ in Ronald Hein and Ronald Russo (eds), *Co-operative Compliance and the OECD’s International Compliance Assurance Programme* (Wolters Kluwer, 2020) 35, 37.

³⁰ Inland Revenue Authority of Singapore, ‘Assisted Compliance Assurance Programme (ACAP)’ (last updated 16 March 2026) <[https://www.iras.gov.sg/taxes/goods-services-tax-\(gst\)/getting-it-right/voluntary-compliance-initiatives/assisted-compliance-assurance-programme-\(acap\)>](https://www.iras.gov.sg/taxes/goods-services-tax-(gst)/getting-it-right/voluntary-compliance-initiatives/assisted-compliance-assurance-programme-(acap)>).

³¹ See Revenue (Irish Tax and Customs), *Co-operative Compliance Framework – Large Corporates Division and High Wealth and Financial Services Division* (Tax and Duty Manual, December 2025) 5.

³² Zambia Revenue Authority, ‘Customs Accredited Clients Program (CACP)’ (Customs Services Brochure) <<https://www.zra.org.zm/wp-content/uploads/2019/12/CACP-Brochure.pdf>>; Zambia Revenue Authority, ‘Trade Facilitation Tools’ <<https://www.zra.org.zm/trade-facilitation-tools>> (accessed 28 March 2025).

2.3 Eligible taxpayers

Cooperative compliance programs are predominantly designed for large business taxpayers, reflecting the greater complexity of their operations, the distinctive tax-risk profiles they present, and the significant administrative resources required to oversee their compliance. From the 1950s onwards, many revenue authorities have restructured from a functional organisation – segregated into units responsible for return processing, audits and enforcement – to a taxpayer-centred model that classifies taxpayers by size and risk profile (eg, individuals, small-to-medium enterprises and large businesses).³³ An International Monetary Fund survey found that by 2002 nearly two-thirds of over 40 countries had established a dedicated large business unit, with the dual objectives of gaining deeper insights into these taxpayers' activities and enhancing control over their compliance, particularly given that large enterprises, though few in number, contribute disproportionately to total tax receipts.³⁴

The OECD identifies the following characteristics as typical of large business enterprises for administrative purposes:

- (i) *multi-jurisdictional operations*: activities conducted across several geographical locations;
- (ii) *complex tax issues*: a broad spectrum of nuanced interpretative questions arising from varied transactions;
- (iii) *intragroup dealings*: frequent related-party transactions, often involving affiliates in preferential or low-tax jurisdictions;
- (iv) *high transaction volumes*: extensive and concentrated commercial activity occurring on a daily basis;
- (v) *sophisticated financing arrangements*: use of intricate funding structures and instruments; and
- (vi) *professional tax expertise*: employment of specialised tax personnel.³⁵

While the precise definition of 'large business' varies by jurisdiction, the eligibility criteria for participation in cooperative compliance programs exhibit a set of common features:

- (i) *size threshold*: the taxpayer must exceed a specified turnover or revenue benchmark established to demarcate large businesses;
- (ii) *clear compliance history*: the taxpayer should have a good compliance history free of significant previous misconduct – such as penalties, fines, late filings, default or fraud – over a defined period (eg, Ireland requires three years of unblemished customs and excise compliance);

³³ Katherine Baer, Olivier Benon and Juan Toro, *Improving Large Taxpayers' Compliance: A Review of Country Experiences* (International Monetary Fund, 2002) 3.

³⁴ *Ibid* 3.

³⁵ OECD, *Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2006)* (OECD Publishing, 2007) 24.

- (iii) *enhanced transparency*: participants must commit to disclosure of information beyond statutory minima, proactively supplying any data likely to be material for risk assessment;³⁶
- (iv) *trust and cooperation*: the taxpayer must be willing to build trust with the tax authority, evidencing a cooperative attitude towards the process;
- (v) *prohibition of aggressive strategies*: in almost all programs, participants are required to refrain from engaging in aggressive tax planning; and
- (vi) *robust internal governance*: the taxpayer must have well-established internal tax policies and governance structures, such as a documented Tax Control Framework.³⁷ Revenue authorities assess these internal controls – alongside any other internal or external control mechanisms in place – to gauge the reliability and robustness of the system.³⁸

These criteria are intended to ensure that cooperative compliance remains focused on those taxpayers whose organisational scale, complexity and resourcing justify a more intensive, transparent and trust-based relationship with the tax administration.

3. MULTILATERAL COOPERATIVE COMPLIANCE MODELS

In its 2013 report *Co-operative Compliance: A Framework, From Enhanced Relationship to Co-operative Compliance*, the OECD observed that revenue authorities were increasingly adopting cooperative compliance.³⁹ The report also noted that a globalised economy requires enhanced cross-border transparency, disclosure and early certainty.⁴⁰ It subsequently introduced the concept of ‘multilateral co-operative compliance’, defined as an arrangement in which a taxpayer and two or more revenue authorities agree to apply cooperative compliance principles to tax issues of shared interest.⁴¹ This groundwork led, in January 2019, to the launch of the OECD’s

³⁶ The participants in a cooperative compliance program may sign a Memorandum of Understanding. See, for example, the Memorandum of Understanding template for the compliance assurance process in the United States, available at: <<https://www.irs.gov/pub/irs-lbi/2025-cap-memorandum-of-understanding-mou.pdf>>.

³⁷ The OECD stipulates that a sound tax control framework should include a well-articulated or documented tax strategy at the top-level management, integrating all transactions and their potential tax implications into daily management practices. The framework must assign responsibilities to top management, supported by a clearly defined and well-resourced tax department strategy. It should include detailed internal rules or reporting measures that are periodically reviewed to ensure alignment of all transactions with expected practices. These measures should also help identify potential non-compliance where possible and be subject to regular testing, monitoring and continuous maintenance. Stakeholders of the taxpayer (both internal or external) should also be consulted and assured that the taxpayer has robust and effective tax control frameworks in place to address potential tax risks. These frameworks should clearly demonstrate any risk appetite and mitigating strategies. See OECD, *Co-operative Tax Compliance: Building Better Tax Control Frameworks*, above n 16.

³⁸ Ibid 22-25 (assessing and testing the tax control framework).

³⁹ OECD, *Co-operative Compliance*, above n 22, 88.

⁴⁰ Ibid 88.

⁴¹ Ibid 33. The OECD had limited knowledge or evidence on how multilateral cooperative compliance might function in practice when the report was written. It stated that the Netherlands and the United Kingdom were the only countries who had ‘jointly and explicitly established a co-operative compliance relationship with a large business covering a variety of different various legal/fiscal questions, as distinct from multilateral Advanced Pricing Agreements (APAs)’ (at 34).

International Compliance Assurance Programme (ICAP), a multilateral process for joint risk assessment and assurance.⁴²

In July 2020, the European Commission announced its proposal for the European Trust and Cooperation Approach (ETACA), a non-legislative framework aimed at facilitating and promoting tax compliance through greater cooperation, trust and transparency.⁴³ In 2021, a pilot under ETACA was launched for multinational enterprises; a corresponding small-to-medium enterprise initiative was proposed in 2023 as part of the European Union's preventative resolution framework for cross-border tax issues. Although the small-to-medium enterprise proposal did not achieve the requisite level of support, the multinational enterprises pilot continues under review, with a second phase anticipated shortly.

Multilateral cooperative compliance differs from domestic (unilateral) programs. Under unilateral schemes, taxpayers may be obliged to disclose both domestic and international transactions⁴⁴ – and some jurisdictions (eg, Italy,⁴⁵ Belgium⁴⁶ and the Netherlands⁴⁷) extend participation to non-resident entities – but they cannot obtain comprehensive assurance for cross-border arrangements without additional mechanisms such as Country-by-Country reporting and, within the European Union, the automatic exchange of Country-by-Country data under DAC4.⁴⁸ As with domestic programs, multilateral regimes aim to cultivate voluntary compliance grounded in mutual trust; however, they are specifically tailored to cross-border issues such as transfer pricing and permanent establishments. By providing contemporaneous assurance across multiple tax administrations, these programs serve as proactive

⁴² OECD, 'OECD International Compliance Assurance Programme' <<https://www.oecd.org/en/about/programmes/icap.html>> (accessed 28 March 2025).

⁴³ European Commission, 'European Trust and Cooperation Approach – ETACA Pilot Project for MNEs' <https://taxation-customs.ec.europa.eu/eu-cooperative-compliance-programme/european-trust-and-cooperation-approach-etaca-pilot-project-mnes_en> (accessed 28 March 2025) ('European Trust and Cooperation Approach').

⁴⁴ In the United States, the Compliance Assurance Process requires participating taxpayers to submit an initial cross-border activity questionnaire, usually due within 90 days after the end of the prior tax year. See the Memorandum of Understanding template, above n 36, 4.

⁴⁵ Revenue Agency (Italy), 'Advance Tax Ruling on New Investments' <<https://www.agenziaentrate.gov.it/portale/web/english/nse/invest-in-italy/advance-tax-ruling-on-new-investments>> (accessed 28 March 2025). See also the decree issued by the Minister of Economy and Finance on 29 April 2016, available at:

<https://www.agenziaentrate.gov.it/portale/documents/180690/1185655/decreo_ruling_new_investments_decreo_ruling_new_investments.pdf/13923a61-58be-26ce-a796-65cee9c9dc3d?t=1510055333894>.

⁴⁶ Federal Public Service Finance (Belgium), *Co-operative Tax Compliance Programme: Innovative Way of Co-operation between Taxpayers and Tax Authorities* (2025) 10.

⁴⁷ Esther Huiskers-Stoop and Hans Gribnau, 'Cooperative Compliance and the Dutch Horizontal Monitoring Model' (2019) 5(1) *Journal of Tax Administration* 66.

⁴⁸ See European Union, *Council Directive (EU) 2016/881 of 25 May 2016 Amending Directive 2011/16/EU as Regards Mandatory Automatic Exchange of Information in the Field of Taxation* [2016] OJ L 146/8 (3 June 2016), referred to as 'DAC4'. Action 13 of the OECD's Base Erosion and Profit Shifting project establishes a global minimum standard requiring multinational enterprises with consolidated revenues of at least EUR 750 million to prepare a Country-by-Country Report for their home jurisdiction tax authority, which is then exchanged with other jurisdictions under the OECD's Competent Authority Agreement or bilateral treaties to support high-level risk assessment. DAC 4 transposes this standard into European Union law by amending Directive 2011/16/EU, mandating harmonised filing deadlines, using the European Union's Common Communication Network for automatic exchange, and introducing European Union-specific definitions such as 'Surrogate Parent Entity'.

dispute-avoidance tools, complementing (unilateral or bilateral) advance pricing arrangements and mutual agreement procedures.

The following discussion examines how the OECD's ICAP and the ETACA might inform the design of multilateral cooperative compliance frameworks within the African mining sector.

3.1 OECD's International Compliance Assurance Programme (ICAP)

The OECD's Forum on Tax Administration describes the ICAP as 'a voluntary programme for a multilateral coordinated risk assessment of an MNE's key international tax risks'.⁴⁹ The program is founded on the assumption that tax assurance for cross-border transactions can be more effectively achieved when all, or most, tax administrations that share common interests or concerns about the transactions are involved. It was initially implemented as a pilot in January 2018 with eight tax administrations, followed by a second pilot involving 19 tax administrations in March 2019.⁵⁰ In September 2019, ICAP officially became a full program of the OECD's Forum on Tax Administration.⁵¹ Currently, 23 tax administrations, including Australia, participate;⁵² no African country is yet involved.

For entry into ICAP, the following factors are considered to determine a taxpayer's suitability:

- the taxpayer's footprint (geographical and operational reach);
- volume and transaction materiality;
- the willingness of the taxpayer's ultimate parent entity to interact with the Lead Tax Administration;
- cooperation of affiliates with respective tax administrations where economic activities occur;
- potential risk posed by the taxpayer's general operation (eg, base erosion and profit shifting concerns);
- the taxpayers' tax risk management and mitigation strategies;

⁴⁹ OECD, Forum on Tax Administration, 'International Compliance Assurance Programme (ICAP): Aggregated Results and Statistics' (Presentation, 29 January 2024) 2 ('International Compliance Assurance Programme').

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² The participating tax administrations can be found at 'OECD International Compliance Assurance Programme', above n 42, which lists Argentina, Australia, Austria, Belgium, Canada, Chile, Colombia, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Poland, Singapore, Spain, the United Kingdom and the United States, as of 28 March 2025. See different jurisdictional perspectives in Ronald Hein and Ronald Russo (eds), *Co-operative Compliance and the OECD's International Compliance Assurance Programme* (Wolters Kluwer, 2020). See also Turkey's consideration for participating in the ICAP in Hakkı Odabaş and İmran Arıtı Erdem, 'In Search of Cooperative Compliance: International Compliance Assurance Programme (ICAP) and Turkey' in Yılmaz Bayar and Lina Karabetyan (eds), *Economic and Social Implications of Information and Communication Technologies* (IGI Global, 2023) 252.

- internal policies and compliance history;
- the existence of advance pricing arrangements; and
- the taxpayer's capability to carry out risk assessments under the ICAP.⁵³

Unlike advance pricing arrangements or mutual agreement procedures, which focus on a narrow range of transactions and risks either unilaterally or bilaterally, ICAP can cover a broad range of intercompany transactions and permanent establishment risks, while focusing on five core areas of international tax risk: tangible goods, intangibles, services, financing and permanent establishments.⁵⁴ Transactions in a particular risk area may be considered outside the scope of an individual assessment.⁵⁵ Not all risk areas are covered in every assessment, and certain sectors may concentrate on specific risk areas.⁵⁶

A risk assessment involves a four-phase process – pre-entry, selection, risk assessment and issue resolution and outcomes – all proposed to be completed within 40 weeks. In the (informal) pre-entry stage, a multinational enterprise group engages with its proposed Lead Tax Administration to discuss scope, suitability and timing. A Lead Tax Administration assumes primary responsibility for scoping the risk assessment, liaising with the multinational enterprise group and convening other participating Covered Tax Administrations in jurisdictions where the group operates. The default Lead Tax Administration is the tax authority in the jurisdiction where the multinational enterprise's ultimate parent entity resides. However, if that jurisdiction elects not to act as Lead Tax Administration, whether due to capacity constraints or limited group activities, the multinational enterprise may propose a surrogate Lead Tax Administration in another participating jurisdiction.

In the second stage, initiated by submission of the Selection Documentation Package, participating tax administrations confirm whether they will join the assessment and agree on the precise scope, such as geography, lines of business and covered risks. Unlike domestic cooperative compliance models that assess prospective controls, ICAP is designed to assess risks with regard to facts and circumstances that have already taken

⁵³ OECD, *International Compliance Assurance Programme: Handbook for Tax Administrations and MNE Groups* (OECD Publishing, 2021) 15-16.

⁵⁴ OECD, Forum on Tax Administration, 'International Compliance Assurance Programme', above n 49, 9.

⁵⁵ Transactions can be outside the ICAP scope for several reasons. Such reasons include the following:

- Transactions may already be covered by an [advanced pricing arrangement], which means a further risk assessment is typically unnecessary.
- [A multinational enterprise] may be undergoing a restructuring of some of its operations during the covered period which means it would be inappropriate to include certain transactions within the scope of a risk assessment.
- Transactions may be considered sufficiently complex that they could not be reviewed within the target timeframes, and so scoping them out ensures a more effective and efficient risk assessment process.
- Transactions in a particular jurisdiction may not be considered material by its tax administration.
- [A multinational enterprise] may not have entered into an intercompany transaction in one or more core risk areas in the jurisdictions of tax administrations participating in its ICAP risk assessment'.

See *ibid* 10.

⁵⁶ For example, banks may develop proprietary assets like digital platforms or applications, which may exacerbate base erosion and profit shifting concerns and risk assessment of these transactions require tax administrations to understand the bank's global value chain and commercial reality.

place, primarily focusing on internal control of in-scope transactions.⁵⁷ While a Country-by-Country report is normally required for both the Selection and Main Documentation Package, the covered period for transactions often coincides with the Country-by-Country reporting period. Multinational enterprises without a Country-by-Country report may nevertheless enter the ICAP with a substitute report containing all relevant information.

The third, risk assessment and issue resolution stage involves the core substantive examination. The multinational enterprise delivers the Main Documentation Package; participating tax administrations perform their risk analyses; and, if any covered risk is flagged, enter an 'issue resolution' process to clarify or agree adjustments.⁵⁸

In the final stage, each Covered Tax Administration issues an outcome letter, confirming which risks it considers 'low risk' (and thus not subject to further compliance action) and setting any caveats or follow-up requirements, such as annual confirmations of no material change. Tax administrations are also expected to provide comprehensive assessments of the suitability, risk, assurance and robustness of the group's tax control measures, in addition to delivering timely risk assessment outcomes. Some administrations have introduced domestic measures to recognise low-risk determinations under the ICAP.⁵⁹

After the risk assessment outcome, taxpayers must remain willing to engage with all participating tax administrations, including providing all necessary information. This includes, but is not limited to, details of the group's planning, internal tax policies and risk mitigation strategies, as well as data pertinent to specific risks, transactions or related entities, which may also be exchanged under advance pricing arrangements or Country-by-Country reporting (or DAC4).

According to the OECD's latest statistics, of the 20 cases completed by October 2023, 40 per cent of multinational enterprises received low-risk outcomes⁶⁰ and, subject to the terms of the relevant outcome letter, none have been subject to further enquiries.⁶¹ There were some minor problems during early implementation: despite low-risk opinions and assurance against audit, Crispi and Barilla received audit letters although these were ultimately resolved through liaison with ICAP contacts.⁶² However, participating multinational enterprises' overall experience, particularly that of Shell and Repsol, has been described as 'overwhelmingly positive', with only minor suggestions expressed from ICAP participants for clearer scoping and more efficient processes.⁶³

⁵⁷ Mário H Martini, 'Introduction: An Investigation of Co-operative Compliance Regimes and the ICAP' in Ronald Hein and Ronald Russo (eds), *Co-operative Compliance and the OECD's International Compliance Assurance Programme* (Wolters Kluwer, 2020) 1, 9.

⁵⁸ The risk assessment process is summarised in Manfred Naumann and David Varley, 'Joint Audits, ICAP, and the Role of Risk Assessment', *International Tax Review* (21 March 2019) <<https://www.internationaltaxreview.com/article/2a68rfy5bw2ycq1rcvqkx/joint-audits-icap-and-the-role-of-risk-assessment>> (accessed 18 May 2026).

⁵⁹ OECD, Forum on Tax Administration, 'International Compliance Assurance Programme', above n 49, 24.

⁶⁰ Ibid 2.

⁶¹ Ibid 24.

⁶² Joe Stanley-Smith, 'Tax Heads Encourage More Companies to Use ICAP' (2019) 30(4) *International Tax Review* 56.

⁶³ Ibid 57-59.

Although ICAP targets a 40-week timeline, actual completion averaged 61 weeks (10.4 weeks for selection, 42.4 weeks for risk assessment and 8.3 weeks for outcomes), compared with the target timeframes of 4-8 weeks, 20-36 weeks and 4-8 weeks for the respective stages.⁶⁴ This delay, however, may be attributed to the disruptive impact of the Covid-19 pandemic.⁶⁵

Although ICAP is widely regarded as a promising direction for future tax administration,⁶⁶ Achim Pross, head of the OECD's International Co-operation and Tax Administration Division, has reserved rapid expansion of the program due to '[c]ountries' inexperience, the infancy of ICAP itself and the logistical and operational challenges of participating'.⁶⁷ Insufficient jurisdictional coverage remains the principal criticism.⁶⁸ Australia, for example, finds ICAP less useful where contentious tax structuring involves non-ICAP jurisdictions (eg, Singapore-based marketing hubs in the mining sector) and where domestic 'justified trust' initiatives mean that many conservative taxpayers have already obtained practical certainty on important tax issues.⁶⁹ Consequently, ICAP's benefits must be evaluated in light of each country's cross-border transaction profile and complementary administrative regimes. Although ICAP's secondary objective is to reduce unnecessary mutual agreement procedure inventories, current evidence shows that this objective seems achievable.⁷⁰

3.2 European Trust and Cooperation Approach (ETACA)

In July 2020, the European Commission published an action plan on fairer and simpler taxation, and on adapting tax systems to modern technologies.⁷¹ The third of its 25 initiatives in this plan was to collaborate with Member States to establish a framework promoting businesses' tax compliance through greater cooperation, trust and transparency among tax administrations within the European Union internal market.⁷²

The ETACA was organised into two branches. The first was intended to support small-to-medium enterprises' cross-border activities in the European Union, and a pilot program was carried out in 2022. However, small-to-medium enterprises have shown limited interest, perhaps reflecting a lack of trust in tax administrations (stemming from an adversarial relationship), perceived procedural burdens and concerns about

⁶⁴ OECD, Forum on Tax Administration, 'International Compliance Assurance Programme', above n 49, 19-20. By October 2023, 20 cases, including cases initiated under two pilots, had been completed.

⁶⁵ Ibid 20.

⁶⁶ See, eg, Hakkı Odabaş and İmran Arıtı Erdem, 'Cooperation in Voluntary Tax Compliance and International Compliance Assurance Programme (ICAP)' (2022) 7(2) *International Journal of Applied Business and Management Studies* 92.

⁶⁷ Discussion of interview with Achim Pross in Stanley-Smith, above n 62, 61.

⁶⁸ Ibid 60.

⁶⁹ See Australian Taxation Office, 'Large Business Justified Trust' (last updated 28 October 2021) <<https://www.ato.gov.au/businesses-and-organisations/corporate-tax-measures-and-assurance/large-business/justified-trust>> (accessed 18 May 2026).

⁷⁰ Kun-Chol Kim, 'The OECD's International Compliance Assurance Programme' (2020) 39(3) *ABA Tax Times* 14.

⁷¹ European Commission, *Communication from the Commission to the European Parliament and the Council: An Action Plan for Fair and Simple Taxation Supporting the Recovery Strategy* (COM(2020) 312 final, 15 July 2020) 8-9.

⁷² See European Commission, *Annex to the Communication from the Commission to the European Parliament and the Council: An Action Plan for Fair and Simple Taxation Supporting the Recovery Strategy* (COM(2020) 312 final Annex, 15 July 2020) 1 (especially A3).

requirements, timeframe and costs of the program.⁷³ No further work was proposed after the pilot, although the European Union's 2022 report noted that small-to-medium enterprises spent approximately 2.5 per cent of turnover on tax compliance, significantly higher than 0.7 per cent spent by large businesses.⁷⁴

The second branch was tailored to large multinational enterprises operating in the European Union, initially focusing on transfer pricing risks. Following publication of ETACA guidelines in October 2021, a pilot began in November 2021 with 14 participating Member States, with broadened tax matters beyond transfer pricing.⁷⁵ A second pilot was initially expected to launch in late 2024 or early in 2025; however, while a stakeholder conference took place in September 2025 in preparation for the second pilot, no official launch has occurred as at January 2026.⁷⁶

ETACA shares many features with ICAP through its three-phase process of admission, risk assessment and outcomes.⁷⁷ An application for entry into the ETACA must be accompanied by information on the taxpayer's footprint, transaction volume and materiality, tax compliance history, commitment to transparency and cooperation and internal tax control frameworks.⁷⁸ The Lead Tax Administration is the authority in the Member State where the group's ultimate parent entity is resident. Although entry is limited to taxpayers with consolidated global revenue of at least EUR 750 million, those below that threshold may apply by supplying Country-by-Country-equivalent information.⁷⁹ Currently, the ETACA requires the ultimate parent entity to be located or operate within the European Union. However, in the future, it may extend to groups whose ultimate parent entity is outside the European Union but which operate regional headquarters in the European Union, subject to participating administrations' approval.⁸⁰ Ongoing tax audits do not preclude participation, though audit years and issues in scope may be taken into account.

Once participating tax administrations express preliminary interest, the applicant provides detailed information about relevant transactions,⁸¹ including:

- a description of the taxpayer's business operations;
- Country-by-Country reporting for the applicable period;

⁷³ See Angelo Di Legge, Davide Ceccanti and Fernando Hortal Foronda (VVA) and Marcell Németh and Márk Csonka (KPMG), *Tax Compliance Costs for SMEs: An Update and a Complement, Final Report* (European Commission, January 2022) 167.

⁷⁴ See European Commission, *Proposal for a Council Directive Establishing a Head Office Tax System for Micro, Small and Medium Sized Enterprises, and Amending Directive 2011/16/EU* (COM (2023) 528 final, 2023/0320 (CNS), 12 September 2023) (see especially text at n 1).

⁷⁵ European Commission, Directorate-General for Taxation and Customs Union, *Annual Report on Taxation 2023* (2023) 167.

⁷⁶ See the European Commission, 'European Trust and Cooperation Approach', above n 43.

⁷⁷ The ETACA is well-explained in Ronald Russo, JJ Engelmoer and Mário H Martini, 'Cooperative Compliance in the European Union: An Introduction to the European Trust and Cooperation Approach' (2022) 76(2) *Bulletin for International Taxation* 83.

⁷⁸ European Commission, Taxation and Customs Union, *Guidelines: European Trust and Cooperation Approach (ETACA)* (July 2025) 6.

⁷⁹ *Ibid* 4.

⁸⁰ *Ibid*.

⁸¹ *Ibid* 7

- existing information in relation to any mutual agreement procedure or advance pricing arrangement;
- information on joint audits or multilateral controls;
- audited financial statements;
- explanatory notes detailing external and internal drivers of profits;
- details of restructurings or transactions in the past three years;
- a list of all intragroup transactions proposed for ETACA coverage;
- comparables for each intragroup transaction;
- detailed transfer pricing methods and calculations; and
- verification of internal tax policies, including self-assessments of the internal tax control frameworks and risk assurance and mitigating strategies.⁸²

ETACA explicitly defines low-risk activities such as routine transactions of distribution, manufacturing contracts and low-value-added intragroup services,⁸³ while high-risk activities (eg, intellectual property transfers and business restructurings) may be excluded due to their complexity, time-consuming nature and significant resources required for their assessment.⁸⁴ Participating tax administrations may on a case-by-case basis include certain non-routine transactions.⁸⁵ The program may also cover transactions involving third or non-participating states, so long as they are relevant to the participating tax administrations in the European Union.⁸⁶ Like ICAP, ETACA does not confer legal certainty but offers practical certainty by excluding covered transactions from future audit.⁸⁷

4. TAX CHALLENGES IN AFRICA'S MINING SECTOR

A cost-benefit analysis of decision-making requires that the adoption of cooperative compliance, from a regulatory perspective, effectively addresses the areas that challenge revenue collection. While the design of existing cooperative compliance models generally targets large businesses and often covers complex international tax issues, such as transfer pricing, consideration of the resources required to implement such a model in Africa is particularly important, as living standards are generally lower than those of developed nations. In this regard, minerals and extractive industries are a strategically important sector in Africa. It is not only the main source of foreign direct investment, but its exports also represent, on average, half of total exports in most

⁸² Ibid, Annex 4 - Main Documentation Package.

⁸³ Ibid 5.

⁸⁴ Ibid

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid 3, 16.

resource-intensive sub-Saharan African countries.⁸⁸ Most of the world's largest mining multinational enterprises in fact already have a presence in Africa.⁸⁹

Mining enterprises have a longstanding presence in Africa as mining projects require a long lead time, often spanning decades, requiring substantial upfront capital, while it takes many years before these projects become profitable. As a result, multinational enterprises in the African mining sector maintain lasting physical presence on the continent, carrying out significant economic activities throughout the life of the project from exploration through construction, development, production, smelting, refining and transportation, to sales.⁹⁰

While there are common cross-border tax challenges related to base erosion and profit shifting, notably, the African mining sector presents particularly acute issues in two areas, transfer pricing and value added tax. These challenges must be contextualised when considering the adoption of a cooperative compliance regime.

4.1 Transfer pricing

The United Nations has cited studies estimating that in 2015 losses from transfer pricing manipulation ranged between USD 4.8 billion and USD 55.4 billion.⁹¹ In 2023, Africa was estimated to have lost approximately USD 88.6 billion annually (equivalent to 3.7 per cent of its gross domestic product) due to illicit activities, with transfer pricing identified as a major contributor.⁹² A more recent study estimates that revenue losses in sub-Saharan Africa alone, home to an estimated 30 per cent of the world's mineral reserves, range between USD 450 million and USD 730 million annually.⁹³

Multinational enterprises operating in this sector typically do not sell products directly to final consumers within Africa. Instead, they commonly sell minerals and extracted materials to their foreign affiliates. African minerals are largely exported in their raw

⁸⁸ Albertin et al, above n 2, 4.

⁸⁹ These multinational enterprises include Glencore Xstrata in the Democratic Republic of the Congo, Zambia and South Africa; Rio Tinto in Ghana, Guinea, Mozambique and South Africa; Anglo American in South Africa and Zimbabwe; Barrick in Zambia and Mali; Newmont in Ghana; AngloGold Ashanti in Ghana, Guinea, Mali, Namibia, Congo and South Africa, and Kinross in Ghana and Mauritania (see *ibid* 5).

⁹⁰ Pietro Guj, Stephanie Martin, Bryan Maybee, Frederick Cawood, Boubacar Bocoum, Nishana Gosai and Steef Huibregtse, *Transfer Pricing in Mining with a Focus on Africa: A Reference Guide for Practitioners* (World Bank, 2017) 17-22; Kalale Mambwe, 'Transfer Pricing in the Commodities Trade Sector' in Raffaele Petrucci, Giammarco Cottani and Michael Lang (eds), *Fundamentals of Transfer Pricing: Industries, Regions, New Technologies, and Other Topics* (Wolters Kluwer, 2022) 68.

⁹¹ These estimates are based on five separate studies. See United Nations Conference on Trade and Development, *Economic Development in Africa Report 2020: Tackling Illicit Financial Flows for Sustainable Development in Africa* (United Nations, 2020) 37.

⁹² *Ibid* 181; UN Trade and Development, 'Africa Could Gain \$89 Billion Annually by Curbing Illicit Financial Flows' (28 September 2020) <<https://unctad.org/isar/news/africa-could-gain-89-billion-annually-curbing-illicit-financial-flows?utm=>> (accessed 18 May 2026). See also High-Level Panel on International Financial Accountability, Transparency and Integrity for Achieving the 2030 Agenda, *Financial Integrity for Sustainable Development: Report of the High-Level Panel on International Financial Accountability, Transparency and Integrity for Achieving the 2030 Agenda* (United Nations, 2021) 9; African Tax Administration Forum, *Suggested Approach to Drafting Transfer Pricing Legislation* (2024) 2.

⁹³ Gorgia Albertin, Dan Devlin and Boriana Yontcheva, 'Countering Tax Avoidance in Sub-Saharan Africa's Mining Sector', *IMF Blog* (International Monetary Fund, 5 November 2021) <<https://www.imf.org/en/Blogs/Articles/2021/11/05/blog-countering-tax-avoidance-sub-saharan-africa-mining-sector>> (accessed 18 May 2026).

forms, with refinement taking place abroad. Newly produced or *sui generis* semi-finished goods that are unique to the mining process are sold to intragroup entities, which then negotiate and sell them to third parties. This operating model creates complexities in determining arm's length transfer prices across borders because comparables are not traded on open markets.⁹⁴ This lack of reliable comparables for determining arm's length values has made transfer pricing a primary area of tax dispute concerning profit shifting within the African mining sector.

This challenge is further complicated by legal and administrative uncertainty.⁹⁵ While many resource-rich African countries have introduced transfer pricing rules, these frameworks vary widely in scope, robustness and enforceability. In several countries, detailed guidance on how to apply transfer pricing principles remains lacking.⁹⁶ Recent developments in countries such as Nigeria, Uganda, Equatorial Guinea and Namibia illustrate increasing tension between tax authorities and multinational enterprises regarding the consistent and appropriate application of fiscal rules.⁹⁷

Beyond the pricing of natural resources, other intragroup transactions are also common sources of transfer pricing disputes in Africa, as is the case in other resource-rich jurisdictions such as Australia. Certain activities, such as financing, sales and marketing and the transfer of hard-to-value intangibles, may be carried out outside Africa. Payments to related entities for royalties and management and technical services are prevalent within the mining sector. The decision to locate these activities offshore is not necessarily driven by tax avoidance or minimisation strategies. Rather, business environment considerations, economic efficiency, proximity to clients, access to shipping and trade centres and the availability of a specialised labour force may play a more significant role in determining the location of economic functions.

Given that no two transactions are identical, pricing intragroup transactions remains complex even where commercial justifications exist. In South Africa, approximately ZAR 20 billion (around USD 110 million) in profit was found to have been shifted through a series of business restructurings. In one case, a South African company made payments to related entities based in low-tax offshore jurisdictions, even though those entities contributed little to generating value.⁹⁸

4.2 Value added tax

Mining royalties or resource rent taxes are often a significant source of revenue in developing, resource-rich countries.⁹⁹ These levies can be structured in various ways with payments calculated based on sales revenue, production volume or weight, or profits or revenue generated from resource extraction. Tax rates may be fixed,

⁹⁴ Guj et al, above n 90, 191.

⁹⁵ Various examples are provided in Alexandra Readhead, *Preventing Tax Base Erosion in Africa: A Regional Study of Transfer Pricing Challenges in the Mining Sector* (Natural Resources Governance Institute, 2016).

⁹⁶ United Nations Conference on Trade and Development, above n 91, 65.

⁹⁷ Ludovic Feulefack Kemmanang, 'Do Thin Capitalization Rules Crowd Out Multinational Firms in Africa? Looking Towards Efficiency in Revenue Mobilization' (2021) 41(2) *Economics Bulletin* 594, 600.

⁹⁸ Guj et al, above n 90, 80-82.

⁹⁹ See the extractive industry rents by the income level of countries shown in Naazneen H Barma, Kai Kaiser, Tuan Minh Le and Lorena Viñuela, *Rents To Riches? The Political Economy of Natural Resource-Led Development* (World Bank, 2012) 23-24, which also shows the increasing importance of extractive industry rents in developing countries.

progressive (increasing with project profitability), hybrid or, in some jurisdictions like Saudi Arabia and Kuwait, negotiable between the state and mining enterprises.

In Africa, many countries impose royalties on the mining sector. However, while royalties are a central component of revenue collection alongside corporate tax, their overall contribution remains relatively limited.¹⁰⁰ Moreover, many resource-rich African countries offer special regimes including tax incentives to attract foreign direct investment. To raise sufficient revenue, there is a pressing need to identify alternative sources of revenue.

Value added tax is an attractive alternative for revenue collection, particularly from the mining sector. Over the course of long-term projects, mining enterprises incur value added tax on locally sourced goods and services as well as on imported inputs. However, they collect only limited value added tax on outputs, as the significant value of their products (that is, natural resources) is exported and therefore zero-rated. From a multinational enterprise's perspective, timely and guaranteed value added tax refunds are essential for profitability given the high value of inputs, daily operations and cash flow management.

Nevertheless, the administration of value added tax refunds in many African countries is a persistent source of disputes between tax authorities and multinational enterprises, often regarded as the 'Achilles heel' of value added tax systems.¹⁰¹ Commentators point to the limited capacity of tax authorities to manage a large number of taxpayers as a major obstacle.¹⁰² In addition, there is a structural disincentive to process refunds efficiently in Africa. Unlike jurisdictions such as Australia, where value added tax revenue is calculated net of refund claims, many African countries treat gross value added tax collections as revenue and classify input tax credits as expenditure. As a result, input tax credits are subject to budgetary constraints and cash shortages faced by governments.¹⁰³

In practical terms, this gives rise to two key issues: first, not all taxes paid on inputs may be refunded, and second, when refunds are provided, they are often significantly delayed. These issues create considerable tax uncertainty and operational complexity for multinational enterprises engaged in mining activities across Africa.

5. EVALUATING THE PROPOSAL TO ADOPT COOPERATIVE COMPLIANCE IN AFRICA'S MINING SECTOR

Given the significance of Africa's minerals and extractive sector as a major contributor to regional gross domestic product, job creation and foreign direct investment, it is pertinent to evaluate cooperative compliance as a proposed mechanism for enhancing tax certainty and revenue collection. In 2021, the United Nations highlighted significant deficiencies inherent in current mechanisms for preventing and resolving tax disputes

¹⁰⁰ Albertin et al, above n 2, vii, 8, 44 (particularly, Annex Figure 2.1).

¹⁰¹ Graham Harrison and Russell Krelove, 'VAT Refunds: A Review of Country Experience' (International Monetary Fund Working Paper WP/05/218, 2005) 4.

¹⁰² Ibid 24.

¹⁰³ For example, Zambia paid approximately USD 400 million in value added tax refunds in 2020, which amounted to about 3.5 per cent of its external debt, with 67 per cent of the refunds allocated to the mining sector. See Reuters, 'Indebted Zambia Pays \$400 Million in VAT Refunds to Mining Firms' (13 January 2021) <<https://www.reuters.com/article/business/finance/indebted-zambia-pays-400-million-in-vat-refunds-to-mining-firms-idUSKBN29I1BT>> (accessed 18 May 2026).

in developing countries, including inadequate administrative resources, unclear legislative frameworks, and perceptions of opacity and corruption within public institutions.¹⁰⁴ Within this context, cooperative compliance has emerged as a compelling solution,¹⁰⁵ posited to strengthen mutual trust through heightened transparency and reduced opportunities for corruption.

An increased awareness of cooperative compliance is evident across Africa, with Nigeria and Zambia already initiating programs that align with its principles, such as enhanced transparency and collaboration between large taxpayers and tax authorities.¹⁰⁶ South Africa has also implemented measures without explicitly adopting the cooperative compliance terminology, such as the establishment of dedicated units engaging with large taxpayers to address tax matters proactively.¹⁰⁷ Notably, cooperative compliance has gained further traction, exemplified by discussions at a recent international workshop held in Pretoria, South Africa, with participation from various stakeholders including government officials, academics and industry representatives.¹⁰⁸

Cooperative compliance is an attractive concept to apply to the minerals and extractive sector in Africa. This sector, heavily reliant on foreign capital and significant upfront investment, faces inherent complexities related to extended lead times before profitability is achieved. These features amplify the sector's sensitivity to tax risks and uncertainties. The African Union and United Nations suggest the adoption of more robust cooperative arrangements in this sector to complement existing administrative and judicial mechanisms and enhance overall tax transparency.¹⁰⁹

Experiences from developed countries indicate that the implementation of domestic and multilateral cooperative compliance programs has often been motivated by inefficiencies observed in mutual agreement procedures.¹¹⁰ According to recent OECD statistics, mutual agreement procedure cases took on average 9.78 months to resolve at the unilateral stage and 26.35 months at the bilateral stage, covering approximately 140 jurisdictions globally, practically all mutual agreement procedure cases worldwide.¹¹¹

¹⁰⁴ United Nations, *Handbook on the Avoidance and Resolution of Tax Disputes*, above n 9, section 1.3.

¹⁰⁵ Ibid 27-28, sections 2.3.4-2.3.5.

¹⁰⁶ Aloisio Flávio Ferreira de Almeida, 'Cooperative Compliance and the CONFIA Program', CIAT Inter-American Center of Tax Administrations (9 May 2022) <<https://www.ciat.org/cooperative-compliance-and-the-confia-program/?lang=en>> (accessed 18 May 2026).

¹⁰⁷ Bram JM Geurts, 'Is Cooperative Compliance a Solution to African Countries? A Comparative Analysis based on South Africa and Nigeria' (International Business Taxation/LLM Thesis, Tilburg University, 2024).

¹⁰⁸ This joint workshop on *Cooperative Compliance: Building Win-Win Approach to Tax Administration in Africa* was held by the African Tax Institute, South African Revenue Service and the International Tax and Investment Centre (ITIC) in Pretoria on 27-28 August 2024.

¹⁰⁹ African Minerals Development Centre and United Nations Economic Commission for Africa, *Impact of Illicit Financial Flows on Domestic Resource Mobilization: Optimizing Revenues from the Mineral Sector in Africa* (2017) 68.

¹¹⁰ Konstantinos Taramountas, 'The Mutual Agreement Procedure: Coordinating the Global Tax Orchestra' (2019) 4 *LSE Law Review* 39.

¹¹¹ OECD, 'Mutual Agreement Procedure Statistics' <<https://www.oecd.org/tax/dispute/mutual-agreement-procedure-statistics.htm>> (accessed 28 March 2025) ('Mutual Agreement Procedure Statistics'). The OECD has published individual country reports in OECD, *Making Dispute Resolution Mechanisms More Effective – Consolidated Information on Mutual Agreement Procedures 2024*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2024). See also the average cycle time for cases completed in 2022 in European Union Member States in European Commission, Directorate-General for

However, these average resolution times are more representative of developed countries than developing countries because developed countries typically have more extensive tax treaty networks than developing nations.¹¹² In African jurisdictions, even where mutual agreement procedures are formally available, ‘the MAP is largely undeveloped and many tax authorities lack experience on the procedure’.¹¹³

The most contentious area within mutual agreement procedure cases remains transfer pricing, requiring on average 15.48 months to resolve at the unilateral stage and 29.46 months bilaterally, significantly longer than the 8.85 and 23.04 months respectively for other types of disputes.¹¹⁴ To proactively mitigate such disputes, multinational enterprises may enter into an advance pricing arrangement, which offers upfront certainty concerning transfer pricing methodologies for proposed transactions. Advance pricing arrangements may be particularly beneficial in jurisdictions with limited tax treaty networks or inadequate mechanisms for cross-border tax dispute resolution. Nevertheless, Readhead observes that advance pricing arrangements are not widespread among African countries – for example, Zambia and Ghana explicitly avoid advance pricing arrangements – primarily due to concerns among local tax authorities of being ‘outgunned’ in negotiations by sophisticated mining-sector taxpayers.¹¹⁵ A survey conducted by Ernst & Young found that while corporate taxpayers are generally satisfied with the outcomes of advance pricing arrangements, the most cited point of dissatisfaction was the length of time required to complete the process, echoing similar concerns about inefficiencies observed in the mutual agreement procedure framework.¹¹⁶ Markham further notes that advance pricing arrangements can lead to tax audit that would not otherwise occur.¹¹⁷

In contexts where advance pricing arrangements are not viable, cooperative compliance might initially appear attractive. Yet, if limited administrative capacity discourages the adoption of advance pricing arrangements, the effective implementation of cooperative

Taxation and Customs Union, *Overview of Numbers Submitted for Statistics on Pending Mutual Agreement Procedures (MAPs) under the Arbitration Convention (AC) at the End of 2022* (Ref. Ares(2023)8464346–11/12/2023, December 2023).

¹¹² Two possible explanations for the low number of tax treaties are as follows: (1) ‘On the institutional front, many developing countries still do not have a dedicated tax policy unit, such that all policy-related matters are undertaken by the tax administration or agency’; (2) ‘the relatively low number of tax treaties in developing countries may render difficult the allocation of scarce resources to this specialized topic and accelerate the erosion of any prior institutional knowledge’. See Sébastien Leduc and Geerten Michiels, ‘Are Tax Treaties Worth It for Developing Economies?’ in Ruud de Mooij, Alexander Klemm and Victoria Perry, *Corporate Income Taxes under Pressure: Why Reform is Needed and How It Could Be Designed* (International Monetary Fund, 2021) 123, 169 (footnote omitted).

¹¹³ Annet Wanyana Oguttu, *Base Erosion and Profit Shifting: A Blueprint for Africa’s Response* (IBFD Publications, 2021) 270.

¹¹⁴ OECD, ‘Mutual Agreement Procedure Statistics’, above n 111.

¹¹⁵ Readhead, above n 95, 17. The advance pricing arrangement processing times in the United States, the United Kingdom and European Union Member States can be found in Internal Revenue Service, ‘Announcement and Report Concerning Advance Pricing Agreements’ (Announcement 2023-10, 27 March 2023); HM Revenue and Customs, ‘Transparency Data: Transfer Pricing and Diverted Profits Tax Statistics 2022 to 2023’ (25 January 2025) <[https://www.gov.uk/government/publications/transfer-pricing-and-diverted-profits-tax-statistics-2022-to-2023](https://www.gov.uk/government/publications/transfer-pricing-and-diverted-profits-tax-statistics-2022-to-2023/transfer-pricing-and-diverted-profits-tax-statistics-2022-to-2023)> (accessed 18 May 2026); European Commission, *Statistics on APA’s (Advance Pricing Agreements) in the EU at the End of 2022* (Ref. Ares(2023)8464346–11/12/2023, December 2023) 2-4.

¹¹⁶ Ernst & Young, *How Profound Change, Transparency and Controversy Are Reshaping a Critical Business Function: 2019 Transfer Pricing and International Tax Survey* (2019) 23.

¹¹⁷ Michelle Markham, ‘The Advantages and Disadvantages of Using an Advance Pricing Agreement: Lessons for the UK from the US and Australian Experience’ (2005) 33(5) *Intertax* 214.

compliance would similarly face significant challenges unless accompanied by a fundamental shift in institutional culture and attitude, addressing real and perceived imbalances in bargaining power.¹¹⁸ Furthermore, some underlying assumptions of cooperative compliance remain unproven or problematic. First, while procedural justice – ensuring consistent and fair tax treatment – has been empirically linked to higher compliance among individual taxpayers, this relationship has not been conclusively demonstrated for large corporate taxpayers.¹¹⁹ Second, although tax control frameworks represent a core component of cooperative compliance programs and are central to the OECD's ICAP model, their effectiveness may be limited to establishing organisational accountability rather than actually managing tax risks.¹²⁰

For taxpayers, the primary benefit of cooperative compliance is enhanced tax certainty, which can significantly improve business efficiency and reduce overall tax compliance costs.¹²¹ Nevertheless, critical perspectives have emerged. De Widt and Oats, for instance, assert that cooperative compliance offers limited practical value, arguing that a low-risk outcome can never truly reflect minimal risk due to the inherent complexity of large business enterprises.¹²² Moreover, being categorised as 'too compliant' may suggest that taxpayers' advisors are not acting optimally in the taxpayers' best interests.¹²³ Additionally, Bogenschneider observes that rather than effectively mitigating tax risks, the *ex ante* assurance provided by cooperative compliance programs may inadvertently facilitate tax avoidance by enterprises.¹²⁴

Advocates of cooperative compliance frequently highlight advantages such as access to efficient alternative dispute resolution mechanisms and centralised points of contact within tax administrations. However, empirical evidence from the United Kingdom indicates that corporate taxpayers who were classified as non-low risk appeared to receive comparatively greater support and engagement from HM Revenue and Customs.¹²⁵ Although real-time engagement is championed as a distinctive benefit – enabling taxpayers to proactively manage and mitigate tax risks, shorten audit durations and reduce transaction complexities – research indicates that real-time responses from tax authorities are 'neither welcome nor possible under all circumstances'.¹²⁶ Furthermore, commentators express concerns that taxpayers participating in cooperative compliance programs might implicitly waive their legitimate legal rights to

¹¹⁸ See Tuulia Potka-Soininen, Jukka Pellinen and Jaana Kettunen, 'Enhanced Customer Cooperation: Experiences with Cooperative Compliance in Finland' (FairTax Working Paper Series No 19, November 2018) 27-28, providing both parties must have the right attitude to make a cooperative compliance system work.

¹¹⁹ Lisette van der Hel – van Dijk and Maarten Siglé, 'Managing Compliance Risks of Large Businesses: A Review of the Underlying Assumptions of Co-operative Compliance Strategies' (2015) 13(3) *eJournal of Tax Research* 760, 775.

¹²⁰ *Ibid* 776.

¹²¹ De Widt and Oats, 'Co-operative Compliance: Views of Large Business', above n 27 (especially the Dutch example).

¹²² *Ibid* 5.

¹²³ *Ibid*.

¹²⁴ Bret N Bogenschneider, 'Non-Cooperative Compliance in the Corporate Tax Audit' (2020) 48(3) *Capital University Law Review* 351.

¹²⁵ De Widt and Oats, 'Risk Assessment in a Co-operative Compliance Context', above n 19 (especially the United Kingdom example).

¹²⁶ See Lotta Björklund Larsen and Lynne Oats, 'Taxing Large Businesses: Cooperative Compliance in Action' (2019) 54(3) *Intereconomics* 165, 170 (interviewing stakeholders of cooperative compliance systems in Denmark, Finland, the Netherlands, Norway, Sweden and the United Kingdom).

challenge tax assessments when irreconcilable differences arise, simply to preserve favourable relationships with tax authorities.¹²⁷

Despite the potential advantages attributed to cooperative compliance such as decreased compliance burdens and diminished tax risks,¹²⁸ the actual realisation of efficiency and improved regulatory effectiveness is often delayed or uncertain due to the adjustments required by novel administrative models.¹²⁹ While tax authorities might streamline data and information requests to conserve administrative resources, the implementation of cooperative compliance necessitates substantial upfront investments in new administrative infrastructures and the extensive training of tax officials. These requirements pose particular difficulties in African jurisdictions already constrained by limited administrative resources. Although cooperative compliance programs claim cost effectiveness through reallocating resources away from protracted audits towards targeted high-risk areas, in the short to medium term the financial and organisational investments required for program design, implementation and maintenance may outweigh these anticipated benefits.

The initial cost burden could potentially be justified if cooperative compliance substantially enhances revenue collection by effectively addressing persistent areas of concern, such as transfer pricing and value added tax, identified as primary tax challenges in Africa's mining and extractive sector. Organisations such as the African Tax Administration Forum or the African Tax Institute could play instrumental roles in developing pilot multilateral cooperative compliance programs among interested states. Nevertheless, given that the root cause of transfer pricing disputes is frequently legislative ambiguity and inconsistent enforcement, offering upfront assurance via cooperative compliance without addressing underlying legislative deficiencies could inadvertently reduce audit scrutiny, exacerbating rather than mitigating revenue leakage. Hence, more direct solutions involving clear and enforceable transfer pricing frameworks should precede the adoption of cooperative compliance initiatives.

Value added tax represents another significant tax administration challenge within the African mining sector. Some analysts argue that cooperative compliance may enhance large businesses' value added tax compliance, especially in contexts where non-participating enterprises have historically demonstrated limited proactive engagement.¹³⁰ However, cooperative compliance does not directly address structural administrative deficiencies – specifically, the practice of classifying value added tax refunds as governmental expenditure rather than as reductions in net value added tax revenue. Administrative processes for refund approvals remain subject to budgetary limitations. Moreover, the broad range of transactions for which multinational enterprises might seek value added tax assurances typically involve input-related expenditures rather than taxable output transactions, diminishing the utility of cooperative compliance from a revenue-raising perspective. Given the uncertainty

¹²⁷ Ronald Russo, 'Co-operative Compliance and ICAP in the Netherlands' in Ronald Hein and Ronald Russo (eds), *Co-operative Compliance and the OECD's International Compliance Assurance Programme* (Wolters Kluwer, 2020) 163, 165, 170.

¹²⁸ See, eg, De Widt and Oats, 'Risk Assessment in a Co-operative Compliance Context', above n 19 (studying the United Kingdom and Dutch cases); Eva Eberhartinger and Maximilian Zieser, 'The Effects of Cooperative Compliance on Firms' Tax Risk, Tax Risk Management and Compliance Costs' (2021) 73 *Schmalenbach Journal of Business Research* 125 (studying Austrian cases).

¹²⁹ De Widt and Oats, 'Risk Assessment in a Co-operative Compliance Context', above n 19.

¹³⁰ Owens et al, above n 17, 19.

surrounding future transactions, tax authorities would likely remain reluctant to provide comprehensive pre-transaction value added tax refund assurances, or if provided, these assurances would necessarily remain contingent upon subsequent audit or review. In this instance, the resources dedicated to obtaining tax assurances under cooperative compliance regimes in these contexts might be largely ineffective, rendering cooperative compliance futile relative to its intended purpose.

6. CONCLUSION

Given the significant reliance of African economies on minerals and extractive industries for employment, gross domestic product and foreign direct investment, ensuring tax certainty and transparency in this sector is paramount. This article has critically assessed the feasibility and potential effectiveness of adopting cooperative compliance in the African mining context. The analysis identified that, despite cooperative compliance being lauded as a potential solution for mitigating uncertainties and inefficiencies in existing dispute resolution mechanisms, its direct implementation in African tax administrations faces substantial practical obstacles. The primary impediments stem from inherent limitations such as inadequate administrative capacity, ambiguity in tax legislation, particularly transfer pricing rules, and structural deficiencies in value added tax refund mechanisms, exacerbated by budgetary constraints.

Transfer pricing disputes remain particularly problematic due to both the complexity of transactions and insufficient legislative clarity across African jurisdictions. Without first addressing these underlying deficiencies, cooperative compliance programs may inadvertently shield problematic transactions from necessary scrutiny, thereby intensifying rather than alleviating revenue leakage. Likewise, value added tax administration, hampered by structural challenges in refund processes and constrained public budgets, cannot effectively benefit from cooperative compliance alone, as pre-transaction assurances on input value added tax refunds remain impractical and resource intensive in their current administrative contexts.

Moreover, the anticipated benefits of cooperative compliance, such as enhanced taxpayer certainty, reduced compliance burdens and real-time risk management, are tempered by empirical findings from developed jurisdictions. Evidence indicates that cooperative compliance frameworks may inadvertently compromise taxpayers' advocacy rights and potentially facilitate tax avoidance. Real-time interactions, while advantageous in theory, have proven difficult to execute in practice, thus raising further doubts about their practical feasibility in resource-constrained African tax administrations.

Additionally, the significant upfront costs and resource allocations required to design, implement, and sustain cooperative compliance regimes cannot be underestimated. African countries already grappling with limited administrative resources, expertise and budgetary constraints may find the short- to medium-term expenses prohibitively high relative to the expected benefits. Thus, without substantial prior improvements in administrative infrastructure and personnel training, cooperative compliance could exacerbate rather than resolve existing systemic challenges.

Consequently, before considering cooperative compliance as a viable policy option, African countries should prioritise foundational reforms aimed at clarifying and reinforcing transfer pricing legislation, ensuring consistent enforcement, and

restructuring value added tax administration to mitigate systemic inefficiencies. Strengthening domestic dispute resolution mechanisms, including clearer administrative appeal and mediation procedures, along with greater judicial capacity and transparency, is equally essential. Simultaneously, African jurisdictions should aim to enhance mutual agreement procedures and explore cautiously the potential of advance pricing arrangements, provided that power imbalances with sophisticated multinational enterprises can be adequately addressed.

Once these fundamental legislative, administrative and capacity-building reforms have taken root, cooperative compliance could then serve as a complementary measure, fostering ongoing improvements in taxpayer-administration relations. Future initiatives should ideally be pursued within a broader, multilateral framework involving regional entities such as the African Tax Administration Forum and African Tax Institute, drawing carefully from international experiences, including the OECD's ICAP and the European Union's ETACA.

In sum, while cooperative compliance holds conceptual promise for improving tax certainty and transparency in Africa's minerals and extractive industries, its effective realisation necessitates a phased and context-sensitive approach. Only after addressing underlying structural, legislative and administrative deficiencies can cooperative compliance meaningfully contribute to sustainable tax administration reform. Parallel initiatives aimed at enhancing political stability, infrastructure management and fiscal governance should accompany these reforms to ensure comprehensive and durable improvements in Africa's mining sector governance.

Between a tax and a hard place: rethinking third-party appointments in South Africa

Carika Keulder*

Abstract

Tax administrations must balance revenue collection with protecting taxpayers from financial hardship. In South Africa, third-party appointments allow the South African Revenue Service to recover tax debts amongst others from employers or pension funds, but inadequate protections risk pushing taxpayers into financial distress. This article critiques the existing protections in South Africa and examines comparative approaches – where third-party appointments are referred to as levies in the United States of America, garnishees in Australia, and deduction notices in New Zealand. By assessing how these jurisdictions protect a taxpayer's basic living expenses while ensuring efficient tax collection, the article proposes legislative reforms to strengthen South Africa's framework. These insights offer valuable lessons for jurisdictions seeking to balance tax enforcement with taxpayer rights.

Keywords: tax collection, taxpayer rights, financial hardship, garnishees, deduction notices, tax levy

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1. INTRODUCTION

The United Nations (UN) Sustainable Development Goal 10 aims to reduce inequality by 2030. Taxation plays a crucial role in achieving this goal through redistributive mechanisms such as progressive taxation. However, tax administration must be designed carefully to avoid unintentionally exacerbating inequality. While maximising revenue collection is essential for achieving socio-economic objectives,¹ it must be balanced with protecting taxpayers' rights and ensuring that those in vulnerable situations do not suffer excessive financial hardship.² As Kokott and Pistone correctly observe, safeguarding the collective rights of taxpayers to ensure sufficient revenue for public welfare does not justify unreasonably infringing on the rights of individual taxpayers.³ Moreover, Baker and Pistone indicate that in protecting taxpayers' rights, tax collection should never deprive taxpayers of the minimum resources required for living. Failure to safeguard this minimum impedes on taxpayers' human dignity.⁴

The economic impact of Covid-19 has left many individuals in significant debt, complicating revenue authorities' ability to collect taxes without causing financial hardship.⁵ While this challenge is not unique to any one country, it underscores the need for tax administrations worldwide to balance enforcement with economic stability. Although maximising tax collection at all costs may seem beneficial for realising socio-economic rights, such an approach is short-sighted. In the long term, maintaining a financially stable taxpayer base is preferable to increasing the number of individuals dependent on government assistance.

Within this global context, South Africa's National Development Plan 2030 aligns with UN Sustainable Development Goal 10 by aiming to eliminate poverty and reduce inequality.⁶ This objective is particularly urgent given that South Africa had the highest income inequality in Southern Africa, with a Gini index of 54.1 in 2022.⁷ Moreover, with 29 million people reliant on social grants and only 7.4 million registered income taxpayers,⁸ it is crucial to ensure that financially vulnerable taxpayers are not pushed into hardship, where they too become dependent on government assistance.

¹ Joel Manyam, 'The Commissioner of Inland Revenue's Statutory Duty to Collect the Highest Net Revenue' (2016) 24 *Waikato Law Review* 108, 109.

² IBFD, Observatory on the Protection of Taxpayers' Rights (Philip Baker and Pasquale Pistone, directors), *The IBFD Yearbook on Taxpayers' Rights 2023, General Report on the Protection of Taxpayers' Rights* (IBFD Publications, 2024) 157.

³ Juliane Kokott and Pasquale Pistone, *Taxpayers in International Law: International Minimum Standards for the Protection of Taxpayers' Rights* (Beck/Hart/Nomos, 2022) 71, 79.

⁴ Philip Baker and Pasquale Pistone, 'General Report' in *Cahiers de Droit Fiscal International, Vol 100B: The Practical Protection of Taxpayers' Fundamental Rights* (International Fiscal Association, 2015) 17, 57. See also IBFD, above n 2, 157.

⁵ Kevin O'Rourke, Ann Kayis-Kumar and Michael Walpole, 'Serious Hardship Relief: In Need of a Serious Rethink?' (2021) 43(1) *Sydney Law Review* 1, 2.

⁶ See National Planning Commission, South Africa, 'National Development Plan – Vision 2030' <https://www.nationalplanningcommission.org.za/National_Development_Plan> (accessed 22 May 2026).

⁷ World Bank, 'Gini Index – Africa Eastern and Southern', <<https://data.worldbank.org/indicator/SI.POV.GINI?locations=ZH>> (accessed 25 May 2026).

⁸ Malcolm Libera, '29 Million People on Grants in South Africa – But Only 7.4 Million Taxpayers', *BusinessTech* (1 November 2024) <https://businesstech.co.za/news/finance/798152/29-million-people-on-grants-in-south-africa-but-only-7-4-million-taxpayers/?utm_source=chatgpt.com> (accessed 22 May 2026).

Beyond provisions for tax debt relief or write-offs in certain cases, the South African Revenue Service (SARS) can mitigate the risk of taxpayers becoming reliant on social grants by considering their financial position before, during and after initiating enforcement actions.

One such enforcement action is the third-party appointments, where a third party is required to pay over money owed or held on behalf of the taxpayer to the revenue authority. This article focuses on cases where taxpayers rely on a salary or pension for basic living expenses, raising important concerns about financial hardship and tax administration fairness.

This article begins by demonstrating that the current South African protections are insufficient (section 2). It then examines approaches in the United States of America (section 3), Australia (section 4), and New Zealand (section 5) that seek to balance tax collection with the protection of taxpayers in vulnerable financial situations, with the aim of identifying potential amendments suitable for the South African context (section 6). While the primary focus is on lessons South Africa can learn, the discussion also offers valuable insights for other tax administrations on achieving an appropriate balance between protecting taxpayers from undue financial strain and ensuring the effective and efficient collection of taxes.

2. TAX THIRD-PARTY APPOINTMENTS IN SOUTH AFRICA

Section 179(1) of the *Tax Administration Act 2011* (South Africa) (*Tax Administration Act*) empowers SARS to issue a notice to a third party ‘who holds or owes, or will hold or owe, any money’ to or for a taxpayer with an outstanding tax debt. Pensions, salaries, and wages are explicitly listed as being subject to the third-party appointment notice.

In relation to pensions, pension benefits, amounts payable to a member or beneficiary in terms of the rules of the pension fund,⁹ may be transferred if permitted by the *Pension Funds Act 1955* (South Africa), the *Income Tax Act 1962* (South Africa), or, importantly for the current discussion, the *Tax Administration Act*.¹⁰ However, a pension interest, which refers to the benefits a member would have been entitled to if their membership of the fund had been terminated before retirement,¹¹ is not subject to a third-party appointment notice. This is because section 37D(1)(d) of the *Pension Funds Act* allows deductions from a member’s individual account, as opposed to a payable amount, in only two instances: when a pension interest is assigned to a non-member spouse in terms of a court order, or in terms of a maintenance order. Accordingly, SARS cannot claim a pension interest through a third-party appointment notice. Thus, the reference to ‘pension’ in relation to third-party appointments under the *Tax Administration Act* can only refer to pension benefits and not a pension interest.

Appointing an employer or pension fund as a third party can have severe consequences for salaried employees, who may lose a significant portion of their income, or older individuals reliant on their pension. This risk is heightened by the absence of specific monetary or percentage limits, potentially leaving taxpayers destitute.

⁹ ‘Benefit’ as defined in the *Pension Funds Act 1955* (South Africa) s 1.

¹⁰ *Ibid* s 37A(1).

¹¹ ‘Pension interest’ as defined in the *Divorce Act 1979* (South Africa) s 1.

While the *Tax Administration Act* provides certain protections to mitigate the impact of third-party appointments, it is important to assess whether these measures are sufficient to protect taxpayers from undue financial hardship. First, a third-party appointment notice may only be issued 10 business days after a final demand for payment has been delivered to the taxpayer. This demand notice must, in addition to demanding payment, outline SARS's collection powers and the debt relief options available to the taxpayer. Crucially, for the purposes of this article, the notice must inform a natural person taxpayer that they may, within five business days of receiving the demand, apply for a reduced amount to be paid to SARS under the third-party appointment, ensuring the taxpayer can cover their own and their dependents' basic living expenses.¹²

Although this protection was included in the third-party appointment process with good intentions, it frequently fails in practice, as SARS often disregards this requirement. In *SIP Project Managers (Pty) Ltd v Commissioner for the South African Revenue Service*,¹³ *WPD Fleetmas CC v C:SARS*,¹⁴ *Ferrari Logistics South Africa (Pty) Ltd v C:SARS*¹⁵ and *Autumn Skies Trading 94 CC v C:SARS*,¹⁶ the demand notices were not delivered to the taxpayers prior to the third-party appointment. In fact, in the latter two cases SARS not only failed to serve the demand notice, but there was not even an outstanding tax debt.¹⁷ Instead of rectifying its non-compliance after the taxpayer alerted SARS to the absence of a delivered letter of demand (and absence of an outstanding tax debt in the latter two cases), SARS allowed these matters to proceed to court.¹⁸ This meant that taxpayers not only temporarily lost the amounts paid over by the third party but also had to incur legal expenses to rectify the situation. The mere fact that the loss is temporary, and the court can order the reversal of the third-party appointment and repayment of the money, does not negate the negative consequences. Being out of pocket, even for a short period, may not only affect the taxpayer but also create a ripple effect that impacts their dependants¹⁹ and business cash flow, leading to reputational damage and causing emotional distress.²⁰ Furthermore, if a significant portion of the taxpayer's pension or salary has been paid over by the third party to SARS, the taxpayer may lack the funds to pursue litigation to have the appointment declared void. Financially constrained taxpayers may also struggle to secure a loan to finance such litigation.

The second protection allows the taxpayer subject to a third-party appointment to request an extension of the period over which the outstanding tax debt should be paid. This also ensures the taxpayer can still afford their and their dependants' basic living expenses.²¹

¹² *Tax Administration Act 2011* (South Africa) s 179(5) ('*Tax Administration Act*'). Equally, a taxpayer who is not a natural person can request a reduction based on serious financial hardship.

¹³ Unreported case number: 11521/2020 (30 April 2020) (High Court) ('*SIP Project Managers*').

¹⁴ Unreported case number 31339/2020 (19 August 2020) (High Court).

¹⁵ Unreported case number 62914/2020 (8 December 2020) (High Court) ('*Ferrari*').

¹⁶ Unreported case number 28987/2020 (14 July 2020) (High Court).

¹⁷ *Ibid*; *Ferrari*, above n 15, [17].

¹⁸ These are known examples where taxpayers took the matter to court; there may be numerous other unknown instances.

¹⁹ *Nondabula v Commissioner: SARS and Another* [2018] (3) SA 541 (High Court) [25].

²⁰ Inspector-General of Taxation and Taxation Ombudsman (IGTO), *Review into the Australian Taxation Office's Use of Garnishee Notices: Tax Administration Management Report* (2019) 178.

²¹ *Tax Administration Act*, above n 12, s 179(4).

This protection has not received the same amount of judicial attention as the demand notice, but the recent matter of *Piet v C:SARS* reveals issues with applying this protection.²² In this matter the taxpayer became aware, when he requested the withdrawal of his pension benefit, that the entire benefit due to him had been paid over to SARS in terms of a third-party appointment.²³ Although the taxpayer did receive a demand notice informing him that SARS has the power to appoint a third party, his lack of awareness that this notice had indeed been issued resulted in him being unaware that he would be affected and that he should request an extension of the period over which the amount was to be paid.²⁴

In this respect, the High Court held this protection ‘necessarily presupposes’ that the pension fund notifies the taxpayer before adhering to the third-party appointment notice.²⁵ This argument is flawed as section 179 of the *Tax Administration Act* requires a third party to do only one of two things: pay over the amount indicated in the third-party appointment notice,²⁶ or inform SARS that it is unable to comply with the notice and provide reasons for this inability.²⁷ There is no explicit requirement for the third party to inform the taxpayer of such a notice once it has been received.

The obligation for the third party to inform SARS of its inability to comply cannot be interpreted to mean that the third party must bring the appointment to the taxpayer’s attention to consider the taxpayer’s inability or situation. This requirement pertains solely to the third party’s ability to comply. For instance, if the taxpayer is not employed by the third party, does not have a pension benefit at the pension fund, or has withdrawn the money from the bank account before the third-party appointment, the third party must inform SARS of its inability to comply. SARS would then withdraw or amend the notice accordingly.

Furthermore, as regards to notifying the taxpayer of an impending third-party appointment, the High Court in *Hindry v Nedcor Bank* indicated that

[i]f the taxpayer were to receive prior warning, he or she could frustrate the tax collector’s ability to recover the amounts due from his/her assets in the hands of a third party, for example by instructing the third party to pay the money to someone else or to the taxpayer him/herself or by ceding his/her claims to another.²⁸

If a third party were to inform the taxpayer that they had received a third-party appointment notice and intended to comply with it, this could place the third party at

²² Unreported case number 3090/2023 (27 August 2024) (High Court) (*‘Piet’*).

²³ *Ibid* [12].

²⁴ *Ibid* [32]–[33].

²⁵ *Ibid* [23].

²⁶ *Tax Administration Act 2011*, above n 12, s 179(1).

²⁷ *Ibid* s 179(2).

²⁸ *Hindry v Nedcor Bank Ltd* [1999] (2) All SA 38, 55 (High Court). In this matter SARS issued a notice in terms of section 99 of the *Income Tax Act 1962* (South Africa), the former third-party appointment provision for income tax, to Nedbank. For a discussion of this case see Editorial, ‘The Commissioner’s Power of Tax Collection’ (March 1999) *The Taxpayer* 50; Linda van Schalkwyk, ‘Constitutionality and the Income Tax Act – Revisited’ (2004) 12(2) *Meditari Accountancy Research* 185; C Keulder and T Legwaila, ‘The Constitutionality of Third Party Appointments – Before and After the Tax Administration Act’ (2014) 77(1) *Tydskrif vir Hedendaagse Romeins-Hollandse Reg/Journal for Contemporary Roman Dutch Law* 53, 58–61.

risk. For example, if a bank's head office receives the appointment notice and informs the taxpayer, but a branch remains unaware,²⁹ it could result in the taxpayer withdrawing funds from the branch. This is because the third-party appointment notice does not in itself freeze the relevant account, nor does it result in an automatic cession or transfer of funds.³⁰ The third party would then be held personally liable for the amount.³¹

Should the specific relationship between the third party and the taxpayer obligate the third party to assume this risk by informing the taxpayer of the third-party appointment before the money is paid over to SARS? The court in *Piet* appears to think so.³² However, van Zyl and Schulze remark that a bank customer in South Africa subjects themselves to South African law.³³ Thus, a taxpayer with a bank account would not succeed in a claim for breach of contractual duty against a bank that did not inform them before paying over the money, as the bank was complying with the *Tax Administration Act*. A similar argument applies to employees and pensioners.

Section 179 of the *Tax Administration Act* does not indemnify a third party against potential withdrawals by the taxpayer if the taxpayer is informed before the third party complies with the appointment notice. Since the Act also does not expressly require the third party to notify the taxpayer, the third party has no obligation to do so, regardless of the nature of its relationship with the taxpayer. Yet, without SARS or the third party informing the taxpayer of the third-party appointment before the third party complies, the protection safeguard has no value.

Ultimately, the protections intended to ensure a taxpayer's financial position is considered are currently ineffective. This is because taxpayers are often not afforded the opportunity to make representations regarding their financial affairs, either due to not receiving the demand notice or being unaware that an appointment notice is imminent.

Consequently, it is important to consider how other jurisdictions address third-party appointments and the potential financial hardship such appointments may cause for the taxpayer.

3. TAX LEVIES IN THE UNITED STATES

In terms section 6331(a) of the *Internal Revenue Code*, a taxpayer who fails to pay an outstanding tax debt within 10 days of receiving a notice to pay may generally be subject to tax collection through a third-party appointment, which is known in the United States as a 'levy'.³⁴ Such a levy is a legal seizure of a taxpayer's property, including funds from a bank account, social security benefits, and wages, to satisfy the outstanding tax debt.³⁵

²⁹ This example is based on the facts of *Nedbank Ltd v Pestana*, 2009 (2) SA 189 (Supreme Court of Appeal).

³⁰ Ibid [1] referring to *Nedbank Ltd v Pestana* (2008) 71 SATC 97 (Tax Court) [12].

³¹ *Tax Administration Act*, above n 12, s 179(3).

³² *Piet*, above n 22, [23].

³³ SP van Zyl and WG Schulze, 'The Collection of Value Added Tax on Cross-Border Digital Trade – Part 2: VAT Collection by Banks' (2014) 47(3) *Comparative and International Law Journal of South Africa* 316, 345.

³⁴ Only in instances where the tax is in jeopardy, would the 10-day period not apply.

³⁵ Taxpayer Advocate Service (US), 'Levies' (28 January 2025) <<https://www.taxpayeradvocate.irs.gov/get-help/interacting-with-the-irs/levies/>> (accessed 26 May 2025).

Before a levy can be imposed, the Internal Revenue Service (IRS) is required to provide taxpayers with various notices to ensure that they have the opportunity to challenge or resolve their tax debt before enforcement actions take place. The IRS must first issue a formal demand for payment, giving the taxpayer 10 days to settle the outstanding tax debt voluntarily. If the tax remains unpaid, the IRS must then send a Notice of Intent to Levy and Notice of Your Right to a Hearing (Notice of Intent) at least 30 days before proceeding with the levy.³⁶ This notice serves as a critical procedural protection informing the taxpayer of the IRS's intention to seize assets, the legal basis thereof and procedures applicable to the levy. It also outlines available alternatives to prevent the levy, such as instalment agreements, the process to request the release of seized property,³⁷ and the right to challenge the levy through a hearing during the 30 days.³⁸

On the taxpayer's request for a hearing, the hearing is conducted by the IRS Independent Office of Appeals.³⁹ During such a hearing, the taxpayer may question the suitability of the collection actions, propose collection alternatives such as an instalment agreement, and dispute the tax liability if they had not previously had the opportunity to do so.⁴⁰ In relation to the suitability of collection actions, the IRS considers whether the taxpayer's situation is so financially constrained that it is currently not collectible.⁴¹ This would be the case if the taxpayer can show that the IRS levy will lead to or increase financial hardship.⁴² The Independent Office of Appeals will ultimately determine whether the intended collection action, ie, the levy, strikes a balance between efficient and effective collection and not being unnecessarily intrusive on the taxpayer.⁴³ The determination by the Independent Office of Appeals can be taken on review to the Tax Court.⁴⁴

In addition to the levy action generally only occurring 30 days after the Notice of Intent is issued, if the taxpayer proceeds with the hearing and any subsequent appeals, the IRS's levy power is further suspended. In fact, the IRS may typically only proceed with levy action 90 days after a final determination has been made.⁴⁵ However, there have been instances where the IRS has incorrectly made immediate levies on bank accounts or employers in cases where they believed an appeal had not been filed, when in fact it was the IRS that had yet to process the appeal filing.⁴⁶

Financial hardship is not only considered before a levy is issued; the IRS also considers whether the levy creates financial economic hardship for the taxpayer as a basis for releasing the levy.⁴⁷ In this respect, the IRS relies on the Collection Financial Standards to assess the taxpayer's ability to pay the outstanding taxes.⁴⁸ Under these standards,

³⁶ *Internal Revenue Code* sections 6331(d)(2), 6330(a)(2) ('IRC'). This notice does not apply when the tax is in jeopardy.

³⁷ *Ibid* section 6331(d)(2).

³⁸ *Ibid* section 6330(a)(3).

³⁹ *Ibid* section 6330(b)(1).

⁴⁰ *Ibid* section 6330(c)(2).

⁴¹ Leslie Book, 'Collection Due Process at Twenty-Five: A Still Important and Needed Check on IRS Collection Power' (2022) 20(1) *Pittsburgh Tax Review* 145, 154.

⁴² *Ibid*.

⁴³ IRC, above n 36, section 6630(c)3(C).

⁴⁴ *Ibid* section 6630(d)(1).

⁴⁵ *Ibid* section 6330(e)(1).

⁴⁶ Howard S Levy, 'IRS Collections in Troubled Times' (2009) 11(5) *Journal of Tax Practice and Procedure* 19, 20.

⁴⁷ IRC, above n 36, section 6343(a)(1)(D).

⁴⁸ Taxpayer Advocate Service, above n 35.

specific national allowances are included for food, clothing, and out-of-pocket medical care based on the size of the taxpayer's family.⁴⁹ Local standards, which vary according to location, provide maximum amounts for housing, utilities and transport.⁵⁰ The IRS may deviate from these standards if the taxpayer's specific facts and circumstances demonstrate that the standards are inadequate. The taxpayer must provide supporting documentation of their actual expenses to substantiate this claim.⁵¹

Beyond the general consideration of financial hardship, the IRS also considers financial hardship when enforcing levies to ensure that taxpayers retain sufficient income to cover basic living expenses. This is achieved by protecting a certain portion of a taxpayer's wages, salary, or other income from the levy.⁵² The exempt portion is determined using tables that consider the frequency of the payments, the number of dependants and the taxpayer's filing status (such as head of household, married filing separate return).⁵³ The taxpayer has an opportunity to provide the IRS with a statement indicating the factors to consider in calculating the relevant exempt amount. Failure to provide this information will result in the exemption available to a married individual filing a separate return with only one personal exemption being applied.⁵⁴

However, assets and income in retirement accounts do not enjoy the same protection, even though a levy on such an account 'may have a particularly negative effect on a taxpayer's future well-being'.⁵⁵ Recognising the potential harmful impact of a levy on retirement accounts, the IRS classifies levies on retirement accounts as 'special cases',⁵⁶ requiring additional evaluation.⁵⁷ Before proceeding with a levy on this account, the IRS must first determine whether alternative collection methods are available. This determination includes identifying both retirement and non-retirement assets, with the principle that non-retirement assets should be prioritised for collection. Furthermore, the IRS must consider if a payment agreement would not provide a better alternative.⁵⁸

Beyond the availability of alternatives, the IRS evaluates the taxpayer's conduct. A levy on a retirement account should not be issued unless the taxpayer's conduct is deemed flagrant. Even if the taxpayer has engaged in flagrant conduct, the IRS is required to assess whether extenuating circumstances exist that may mitigate the severity of the conduct.⁵⁹ Although the term 'flagrant' is not defined in the Internal Revenue Manual,

⁴⁹ IRS, 'Collection Financial Standards' (last reviewed or updated 9 February 2026) <<https://www.irs.gov/businesses/small-businesses-self-employed/collection-financial-standards>>.

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² IRC, above n 36, section 6334(a)(9).

⁵³ See <<https://www.irs.gov/pub/irs-pdf/p1494.pdf>> for the relevant 2026 tables.

⁵⁴ IRC, above n 36, section 6334(d)(B).

⁵⁵ Taxpayer Advocate Service, *Fiscal Year 2017 Objectives Report to Congress, Volume 1* (2016) 94 (footnote omitted)

<https://www.taxpayeradvocate.irs.gov/wp-content/uploads/2020/08/Area_of_Focus_3.pdf> ('*Fiscal Year 2017 Objectives Report*').

⁵⁶ Internal Revenue Service, *Internal Revenue Manual* (last updated 30 April 2026) section 5.11.6.2 ('Notice of Levy in Special Cases, Retirement Income') <https://www.irs.gov/irm/part5/irm_05-011-006> (*Internal Revenue Manual*).

⁵⁷ Treasury Inspector General for Tax Administration, *Procedures for Retirement Account and Thrift Savings Plan Levies Are Not Always Followed by Revenue Officers* (26 September 2017) 2.

⁵⁸ Internal Revenue Service, *Internal Revenue Manual*, above n 56, section 5.11.6.3 ('Funds in Pension or Retirement Plans').

⁵⁹ Ibid. Extenuating circumstances refer to situations beyond a taxpayer's control and include illness, acts of nature and losing employment.

the Manual does provide examples of what would constitute flagrant conduct. For instance, it would be flagrant conduct if the taxpayer makes voluntary contributions to their retirement account while aware of unpaid taxes. Nonetheless, if these contributions are made automatically from their basic salary or wages it would not constitute flagrant conduct.⁶⁰ The Taxpayer Advocate Service criticises the fact that there is no clear definition of flagrant conduct as it is simply within the subjective discretion of the relevant IRS officer who can only rely on the provided examples.⁶¹ This creates inconsistencies in enforcement.

Moreover, the IRS must establish whether the taxpayer currently relies or will soon rely on the retirement account for basic living expenses.⁶² To determine this the IRS follows the procedure set out in IRM 5.15 Financial Analysis. Unfortunately, this analysis does not include consideration of changing circumstances such as increased medical expenses or cost of living.⁶³

The Taxpayer Advocate Service recently emphasised the need to codify retirement account protections, rather than leaving them subject to IRS policy discretion. Moreover, the Service argues, in line with Congress encouraging retirement savings, that taxpayers should not be able to agree to voluntary levies on their retirement accounts to settle their tax debt.⁶⁴

Overall, the US tax levy power incorporates multiple protections, including formal notice requirements, appeal rights, and financial hardship considerations, to balance effective tax collection with taxpayer protections. However, gaps remain, particularly regarding retirement accounts, where the undefined concept of ‘flagrant conduct’ and the lack of a forward-looking financial assessment create inconsistencies in enforcement.

4. TAX GARNISHEES IN AUSTRALIA

Section 260-5 of Schedule 1 to the *Taxation Administration Act 1953* (Cth) empowers the Australian Taxation Office (ATO) to collect tax-related liabilities⁶⁵ payable, ‘whether or not the debt has become due and payable’, from a third party who ‘owes or may later owe money’ to that taxpayer. This third-party appointment power is commonly referred to as the ‘garnishee power’ in Australia.⁶⁶

⁶⁰ Ibid.

⁶¹ Taxpayer Advocate Service, *Fiscal Year 2017 Objectives Report*, above n 55, 97.

⁶² Internal Revenue Service, *Internal Revenue Manual*, above n 56, section 5.11.6.2.

⁶³ Taxpayer Advocate Service, *Fiscal Year 2017 Objectives Report*, above n 55, 96-97.

⁶⁴ Taxpayer Advocate Service, 2025 Purple Book: Compilation of Legislative Recommendations to Strengthen Taxpayer Rights and Improve Tax Administration (2024) 54 (Legislative Recommendation 24, ‘Protect Retirement Funds from IRS Levies, Including So-Called “Voluntary” Levies, Absent Flagrant Conduct by a Taxpayer’).

⁶⁵ A ‘tax-related liability’ means ‘a pecuniary liability to the Commonwealth’ which has come about in terms of a taxation law as defined in the *Taxation Administration Act 1953* (Cth) Sch 1, s 255-1(1). According to the *Taxation Administration Act*, s 3AA(2) read with s 995(1) of the *Income Tax Assessment Act 1997* (Cth), ‘taxation law’ refers to an Act where the Commissioner of the ATO administers the Act, legislative instruments made under such an Act, the *Tax Agent Services Act 2009* (Cth) or regulations made in terms of the *Tax Agent Services Act*.

⁶⁶ ATO, ‘Enforcement Measures Used for the Collection and Recovery of Tax-Related Liabilities and Other Amounts’, Law Administration Practice Statement PS LA 2011/18 (14 April 2011, last updated 20 May 2026) [109] (‘PS LA 2011/18’).

This section establishes two requirements before a garnishee notice can be issued. First, there must be a payable tax-related liability, and second, the third party must owe or may later owe money to the taxpayer. Regarding the first requirement, it is evident that ‘payable’ liability entails something different from ‘due and payable’ debt. In the author’s view, payable liability refers to a legal liability irrespective of whether the money is payable at that stage.

In relation to the second requirement, the obligation imposed by a garnishee notice arises with the service of the notice.⁶⁷ Thus, as long as the requirement was met when the garnishee notice was issued, the notice will be valid.⁶⁸ Accordingly, subsequent actions by the taxpayer, such as assignment after a third-party notice has been served, do not make a garnishee notice ineffective.⁶⁹ However, the garnishee notice only becomes enforceable when there is an identifiable debt owed to the taxpayer.⁷⁰ Thus, only once an identifiable debt arises, is the third party obliged to act in accordance with the garnishee notice.

The ATO’s conduct regarding garnishee orders was scrutinised by the Inspector-General of Taxation and Taxation Ombudsman (IGTO) following accusations that the ATO had employed ‘disturbing and heavy-handed tactics’ targeting small businesses.⁷¹ These alleged tactics included staff being directed to issue enduring garnishee notices in every case, resulting in a perceived ‘cash grab’ at the end of the 2016-17 financial year, as well as staff performance being assessed based on the amount of debt collected.⁷² Although the IGTO ultimately found that these allegations were not supported by evidence, it nonetheless emphasised the importance of the ATO demonstrating care for disaffected taxpayers, particularly those in vulnerable situations, when issuing garnishee notices.⁷³

One way in which this care is demonstrated is that before issuing a garnishee notice, the Commissioner of the ATO must consider the taxpayer’s financial situation. For instance, as illustrated in Case Study 1 of the IGTO report, if a taxpayer receives only a small amount of interest, it is unlikely that they have substantial funds held in investment accounts. Subjecting these accounts to a garnishee order may impede their ability to meet basic living expenses. As such, the ATO officer should consider whether garnisheeing a percentage of the taxpayer’s salary might have fewer adverse consequences for the taxpayer.⁷⁴ In terms of ATO Law Administration Practice Statement PSLA 2011/18, the ATO also considers other debts owed by the taxpayer and the possible impact a garnishee notice will have on the taxpayer’s family and business (if applicable).⁷⁵ Furthermore, the ATO will generally not garnish more than 30 per cent of salary and wages payable. This percentage can be increased if the taxpayer has

⁶⁷ *Clyne v Deputy Commissioner of Taxation* (1981) 150 CLR 1, 23.

⁶⁸ *Ibid.* In *Clyne* the ATO issued a garnishee notice in relation to three interest-bearing deposits that had not yet matured. After issuing the garnishee notice, but before the deposits matured, the taxpayer assigned the deposits to another person.

⁶⁹ ATO, PS LA 2011/18, above n 66, 12, 19.

⁷⁰ *Commissioner of Taxation v Donnelly* (1989) 25 FCR 432, 442-443.

⁷¹ IGTO, above n 20, v. See also Adele Ferguson, Lesley Robinson and Lucy Carter, “‘It’s Malicious and It’s Vengeful’”, *ABC News* (6 April 2018) <<https://www.abc.net.au/news/2018-04-07/australian-tax-office-accused-of-misusing-draconian-powers/9613808>> (accessed 23 May 2026).

⁷² IGTO, above n 20, v.

⁷³ *Ibid.* iv.

⁷⁴ *Ibid.* 186.

⁷⁵ ATO, PS LA 2011/18, above n 66, [113].

another source of income and decreased if the taxpayer is already subject to other garnishees.⁷⁶ Moreover, the Commissioner must consider whether the issuing of a garnishee notice would ‘significantly prejudice’ a taxpayer’s right to appeal an assessment that gave rise to the tax obligation.⁷⁷

Still, it must be noted that the ATO is not required in terms of law to consider the financial position of the taxpayer before issuing a garnishee notice and restricting salary and wages. Instead, a Practice Statement advises that the ATO should take the taxpayer’s financial position into account.⁷⁸ Accordingly, taxpayers may find it challenging to compel the ATO to consider their financial situation.

This lack of a legal obligation underscores a broader concern, that while the ATO’s garnishee power is a critical enforcement tool, its application must balance efficiency with fairness. The absence of a legal obligation to consider a taxpayer’s financial position highlights the need for greater protections to prevent undue hardship.

5. TAX DEDUCTION NOTICES IN NEW ZEALAND

In terms of section 157(1) of the *Tax Administration Act 1994* (NZ), the Commissioner of Inland Revenue has a discretion to issue a deduction notice requiring a person to deduct money that is, or may become, payable to a taxpayer to satisfy, among other things, an income tax debt owed by that taxpayer.⁷⁹ Due to the reference to ‘or may become payable’ it is apparent that the deduction notice also applies to money that will be payable to the taxpayer in future.⁸⁰ A such, the third party will be binding on the third party once an identifiable debt is owed to the taxpayer.⁸¹ For instance, if the third party is a bank⁸² any amount that is on deposit or deposited to the credit of the taxpayer on the day the notice is given to the bank⁸³ or any day thereafter, would be subject to the deduction notice.⁸⁴

The Inland Revenue Department (IRD) states that it considers all relevant information before issuing an appointment notice, including communications with the taxpayer, the amount of unpaid tax, and the likelihood of taxpayer hardship.⁸⁵ Although the consideration of potential hardship is provided for only in a practice note, it enjoys legislative backing under section 176(2)(b) of the *Tax Administration Act 1994*. This

⁷⁶ Ibid [119].

⁷⁷ Ibid [123].

⁷⁸ ATO, ‘Law Administration Practice Statements’ (last updated 1 August 2025) <<https://www.ato.gov.au/about-ato/ato-advice-and-guidance/ato-guidance-products/law-administration-practice-statements>> specifically indicates that the Practice Statements are not law.

⁷⁹ See Lisa Marriott, ‘Tax Debt Management in New Zealand and Australia’ (2014) 9(1) *Journal of the Australasian Tax Teachers Association* 1, 7-8 for a general discussion of the third-party appointment provisions in New Zealand.

⁸⁰ *Tax Administration Act 1994* (NZ) s 157(10)(b) definition of ‘amount payable’ as well as the wording of s 157(1). Once the money becomes payable the third party must pay it over. This notice remains valid until payment is made to the Inland Revenue Department or the notice is revoked.

⁸¹ Joel Manyam, ‘The Extensive Powers of the Commissioner of Inland Revenue in Assessing and Collecting Tax Debts’ (2001) 9 *Waikato Law Review* 91, 119.

⁸² *Tax Administration Act 1994* (NZ) s 157(10) provides that ‘bank’ refers to a building society registered in terms of the *Building Societies Act 1965* (NZ) and a bank as construed in the *Banking Act 1982* (NZ).

⁸³ *Tax Administration Act 1994* (NZ) s 157(10)(c)(i) definition of ‘amount payable’.

⁸⁴ Ibid s 157(10)(c)(ii) definition of ‘amount payable’.

⁸⁵ Inland Revenue Department, ‘Deduction Notices’, Standard Practice Statement SPS21/01 (12 April 2021) 2.

section states that, despite the IRD's obligation to collect the maximum outstanding taxes, the collection must not place a natural person taxpayer in serious hardship.

Section 157(5) of the *Tax Administration Act 1994* explicitly requires the Commissioner to provide the taxpayer with a copy of the deduction notice. In *Anzamco Ltd (in liq) v Bank of New Zealand*,⁸⁶ Barker J emphasised the significance of this requirement, noting that it allows the taxpayer an opportunity to oppose the notice. The judge opined that the copy of the notice should be served on the taxpayer within the period between its service on the third party and the deadline for payment specified in the notice.⁸⁷ This suggests that while the notice takes conditional effect upon service on the third party, it only becomes fully enforceable once the taxpayer has also been notified.⁸⁸

Whilst opposing the notice would generally allow the taxpayer to indicate that the tax debt has already been paid or that a payment arrangement is in place, it also provides an opportunity for the taxpayer to inform the IRD of factors unknown to the IRD that could affect its assessment of whether hardship is likely.

In addition to considering potential hardship before issuing a deduction notice, the *Tax Administration Act 1994* provides further protections for vulnerable taxpayers under section 157(3). This provision limits deductions from wages and salaries, ensuring that a third party may withhold up to the lesser of 10 per cent per week of the taxpayer's due income tax or 20 per cent of their wages or salary, with a minimum deduction of NZD 10 per week. These restrictions serve to mitigate excessive financial strain on taxpayers while still enabling tax debt recovery.⁸⁹

From the above, it is clear that the deduction notices in terms of the *Tax Administration Act 1994* balance tax recovery with taxpayer protection. Protections like notification requirements and wage deduction limits ensure fairness, preventing excessive hardship while enabling effective tax collection.

6. STRENGTHENING THIRD-PARTY APPOINTMENTS

As discussed in section 2 of this article, South African third-party appointments are not subject to any restriction on the amount or percentage that may be recovered. This means there is no general protection in place for taxpayers who rely on their salary or pension to cover basic living expenses. Although there are legislative protections intended to ensure that taxpayers can bring their financial circumstances to SARS's attention before a third-party appointment notice takes effect, these protections have failed in practice, as illustrated by case law.

Turning to the first safeguard, the failure by SARS to deliver the final demand letter, informing the taxpayer of the opportunity to request a reduction in the amount subject to third-party appointment, renders the subsequent third-party appointment void. This is because, under a purposive approach to statutory interpretation, one must consider the purpose of the provision and whether a literal interpretation would undermine that

⁸⁶ (1982) 5 NZTC 61,249.

⁸⁷ Ibid 61,257.

⁸⁸ Ibid.

⁸⁹ See Inland Revenue Department, above n 85, 6-7 for examples of the wage calculation.

purpose.⁹⁰ Where the wording of a provision is peremptory, its underlying purpose must guide its application.⁹¹ In this respect, the court in *SIP Project Managers* held that the section 179(5) of the *Tax Administration Act* imposes a clear limitation on SARS's power to issue a third-party appointment.⁹² Failure to deliver the required notice amounts to a disregard of a legally mandated constraint.⁹³ As a result, the subsequent third-party appointment must be declared null and void.⁹⁴

Nonetheless, the subsequent third-party appointment must be declared null and void by a court if SARS does not withdraw it of its own volition.⁹⁵ A taxpayer who may have required a reduction in the amount subject to the third-party appointment to meet their basic living necessities may not be in a position to incur legal costs to have SARS's unlawful action set aside. Such a situation is clearly untenable.

Apart from approaching the court and incurring legal costs, a taxpayer may consider lodging a complaint with the Office of the Tax Ombud. This Office is mandated, among other things, to 'review and address any complaint by a taxpayer regarding a service matter or a procedural or administrative matter arising from the application of the provisions of a tax Act by SARS'.⁹⁶ In the author's view, the taxpayer would not be required to first exhaust the complaints resolution mechanisms available within SARS, as contemplated in section 18(4) of the *Tax Administration Act*. This is because requiring the taxpayer to do so would result in undue hardship, as they may remain out of pocket while SARS investigates the complaint, particularly if SARS fails to withdraw the appointment after being informed of its non-compliance with the section 179(5) demand notice requirement. These circumstances constitute compelling circumstances for not requiring the exhaustion of internal procedures.⁹⁷

Although the review by the Office of the Tax Ombud is free,⁹⁸ this Office does not have the power to halt any enforcement actions and, as such, the third party would still need to comply with the third-party appointment notice whilst this investigation is under way. Furthermore, even if the Office of the Tax Ombud recommends that SARS should withdraw the third-party appointment due to failure to adhere to the peremptory wording of the demand notice, a recommendation by the Office of the Tax Ombud is not binding on SARS.⁹⁹

In relation to the second safeguard, the *Piet* judgment highlights the need for legislative intervention regarding who is responsible for notifying the taxpayer. Without an explicit obligation being placed on the third party, and if the notice takes conditional effect upon service on the third party but only becomes fully enforceable once the taxpayer has also been notified, as is the case in New Zealand, this safeguard will remain meaningless.

⁹⁰ *African Christian Democratic Party v Electoral Commission* [2006] (3) SA 305 (Constitutional Court) [23].

⁹¹ *SIP Project Managers*, above n 13, [24].

⁹² *Ibid* [26].

⁹³ *Ibid* [23].

⁹⁴ *Ibid* [27].

⁹⁵ From the cases discussed in section 2, it is clear that SARS is not inclined to withdraw this appointment out of their own volition.

⁹⁶ *Tax Administration Act*, above n 12, s 16(1)(a).

⁹⁷ *Ibid* s 18(5)(b).

⁹⁸ Office of the Tax Ombud, *Complaints Guide*, 3.

⁹⁹ *Tax Administration Act*, above n 12, s 20(2).

Given the inadequacies in the South African approach, the remainder of this section draws on the positions in the United States, Australia and New Zealand to explore potential solutions for addressing these shortcomings.

As regards restricting the amount of salaries and pensions that can be subject to appointment notices, the United States, Australia and New Zealand all provide for a default portion of salaries and wages to be protected from tax collection. Although none of these jurisdictions provide a similar protection for pensions, they all consider the financial position of a taxpayer generally to ensure that the taxpayer would have sufficient money available to cover their basic living expenses.

From a South African perspective, establishing an objective standard of protection as a starting point would be commendable. Such a standard would provide clear guidance on how SARS's duty to collect the maximum amount of tax is balanced with taxpayers' rights in this context.¹⁰⁰ The principle of protecting a portion of an employee's salary is also already recognised in South African law, as ordinary civil creditors cannot attach more than 25 per cent of a judgment debtor's basic salary.¹⁰¹ Section 23(5) of the *Insolvency Act 24 of 1936* (South Africa) serves as another example in South Africa of where a portion of a person's salary is protected, as the trustee is only entitled to the portion of the salary that is not necessary for the support of the insolvent and their dependants.

While allowing a court, as an impartial and objective forum, to determine the appropriate amount would also ensure objectivity, it would also significantly hinder SARS's ability to collect taxes efficiently, given the severe backlog in the South African court system.¹⁰²

Nonetheless, using a specific percentage as a default to ensure protection to vulnerable salary taxpayers may not provide the ideal balance between taxpayers' rights and SARS's collection mandate. If Taxpayer A has a net salary of ZAR 10,000 per month and only 30 per cent may be subject to a third-party appointment, SARS would only be able to collect ZAR 3,000, leaving Taxpayer A with ZAR 7,000 at their disposal. By contrast, if Taxpayer A's net income is ZAR 600, they would be left with only ZAR 420 per month if SARS were to collect outstanding taxes by way of a third-party appointment.¹⁰³

¹⁰⁰ Carika Fritz, 'An Appraisal of Selected Tax-Enforcement Powers of the South African Revenue Service in the South African Constitutional Context' (LLD Thesis, University of Pretoria, 2017) 326.

¹⁰¹ *Magistrates' Court Act 1944* (South Africa), s 65J (1A)(c)(iii).

¹⁰² Fritz, above n 100, 326. See generally Nathan Geffen, 'Our Justice System Is Grinding to a Halt', *GroundUp* (9 December 2024) <<https://groundup.org.za/article/our-justice-system-is-grinding-to-a-halt/>> (accessed 23 May 2026); Alison Tilley, 'Shortage of Judges Is Severely Hampering Delivery of Justice in Gauteng's High Courts', *Daily Maverick* (5 September 2024) <<https://www.dailymaverick.co.za/article/2024-09-05-shortage-of-judges-is-severely-hampering-delivery-of-justice-in-gautengs-high-courts/>> (accessed 23 May 2026) regarding the backlog in South African courts.

¹⁰³ Although a person with a net monthly income of ZAR 600 would not be liable for income tax on this income (see SARS, 'Personal Income Tax' (last updated 19 May 2026) <<https://www.sars.gov.za/types-of-tax/personal-income-tax/>> where it is indicated that a person younger than 65 years is liable for income tax if they earn more than ZAR 99,000), the taxpayer could be subject to income tax in relation to a previous year where they earned more than the threshold amount, or the tax liability could relate to another type of tax.

In the first scenario, Taxpayer A may still be able to pay most of their expenses, essential and some non-essential, while SARS gets the short end of the stick. In the second scenario the taxpayer's disposable income would be below the lower-bound poverty line of ZAR 1,109.¹⁰⁴ As such, the taxpayer would not even be able to pay their basic living expenses despite the 30 per cent cap on third party appointments. Due to the inadequacy of restricting third-party appointments to a certain percentage, it is recommended that a certain amount of a person's salary or wages should be protected from third-party appointments. This amount should be linked to the lower-bound poverty line to ensure that these taxpayers are able to meet their most basic needs.¹⁰⁵ In the author's view this protection should extend to pensions as a taxpayer reliant on their pension would also rely on this income to meet their most basic expenses. It may not be necessary to extend this lower-bound poverty line protection to other forms of income such as rental or interest amounts as those would seldom be the only form of income a person receives. Nonetheless, in instances where it is the only form of income, the protection should also apply.

Regardless of whether the default protection is based on a percentage, or on an amount such as the lower-bound poverty line, this protection should be incorporated into the *Tax Administration Act* rather than being set out in a practice statement, as is the case in Australia. This would enhance legal certainty, which is essential for upholding the rule of law and ensuring that SARS is bound by this protection. Moreover, given that the 2018 Report of the Commission of Inquiry into Tax Administration and Governance by SARS¹⁰⁶ and the 2022 Judicial Commission of Inquiry into State Capture¹⁰⁷ have confirmed 'a massive failure of integrity and governance' at SARS during the period from 2014 to 2018, public trust in SARS remains very low. It is, therefore, essential that this protection is enacted in legislation and not left to SARS's discretion.

Yet, the percentage or lower-bound poverty line protection should be the mere point of departure and in situations where there is (still) not sufficient money available for a taxpayer to meet their basic needs, for instance because of the number of dependants or the appointment notice is issued in relation to another type of income, the taxpayer should approach SARS. SARS would then determine the affordability based on the individual circumstances of the taxpayer.¹⁰⁸

Of course, for individual circumstances to be considered, it is essential that a taxpayer is aware of an imminent third-party appointment so they can provide the necessary evidence of their basic living expenses. Unfortunately, as shown in this article the protections in the *Tax Administration Act* as they currently function in practice are

¹⁰⁴ The lower-bound poverty line is the income level where an individual would be able to buy essential non-food items but would need to sacrifice food to obtain these items. For further information in this regard, see Zeynep Dierks, 'National Poverty Line in South Africa 2024', *Statista* (26 January 2026) <<https://www.statista.com/statistics/1263737/national-poverty-line-in-south-africa/>> (accessed 23 May 2026).

¹⁰⁵ Fritz, above n 100, 327-328.

¹⁰⁶ Commission of Inquiry into Tax Administration and Governance by SARS (Judge R Nugent, Commissioner), *Final Report* (11 December 2018) 197.

¹⁰⁷ Judicial Commission of Inquiry into Allegations of State Capture, Corruption and Fraud in the Public Sector Including Organs of State (Justice RMM Zondo, chair), *Judicial Commission of Inquiry into State Capture Report: Part 1, Vol 3, South African Revenue Service and Public Procurement in South Africa* (delivered 4 January 2022). The full set of reports can be accessed at <<https://www.statecapture.org.za/site/information/reports>>.

¹⁰⁸ Fritz, above n 100, 328.

lacking. Whilst the functioning of the protections must be improved, as suggested earlier in this section, the inclusion of default objective protections would greatly assist taxpayers in vulnerable positions.

7. CONCLUSION

A well-balanced tax administration framework should ensure effective revenue collection while safeguarding taxpayers from undue financial hardship. The current South African approach to third-party appointments lacks sufficient protections, potentially leaving taxpayers without the means to meet their basic living expenses. Drawing from international best practices, incorporating a legally binding protection threshold, whether a percentage-based cap or an amount linked to the lower-bound poverty line, would provide greater legal certainty and ensure that vulnerable taxpayers are not pushed into financial distress. Additionally, legislative amendments should enhance procedural protections, including ensuring taxpayers are notified in time to engage with SARS and provide evidence of their financial position.

Achieving these reforms requires buy-in from all stakeholders, including SARS, third-party institutions, policymakers, and taxpayers themselves. Effective implementation depends not only on legislative changes but also on clear administrative processes and cooperation among all involved parties. A system that is both fair and efficient will not only protect taxpayers but also contribute to long-term tax compliance and economic stability.

When anti-avoidance measures and protection of property rights collide

Jeroen Lammers*

Abstract

This article examines when anti-avoidance provisions in (national) tax legislation may violate the right to property. While the intersection of tax law and human rights has gained increasing attention in discussions on tax fairness, enforcement, and taxpayer safeguards, the question of whether anti-avoidance measures infringe upon property rights remains relatively underexplored in the literature. Drawing on the method of examination developed by the European Court of Human Rights (ECtHR) and recent case law from the Dutch Supreme Court, the article analyses the circumstances under which such measures may impose disproportionate burdens on taxpayers. Particular attention is given to rules that reclassify income through broadly formulated legal fictions, such as the Danish provision taxing loans to shareholders as dividends at the time of issuance. Building on this analysis, the article develops an analytical framework comprising five indicators that can assist in identifying structural features of anti-avoidance rules that risk upsetting the fair balance required under the ECtHR framework. Through a detailed examination of national jurisprudence, the article contributes to the broader debate on reconciling effective tax enforcement with the protection of fundamental rights. The framework is intended both as a tool for assessing existing anti-avoidance measures and as a point of reference for the design of future rules that seek to maintain an appropriate balance between administrative efficiency and the protection of taxpayers' property rights.

Keywords: tax avoidance, property rights, tax policy

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1. INTRODUCTION

This article examines the boundaries between legitimate taxation and unlawful expropriation in the context of anti-avoidance provisions in (national) tax legislation. The focus is on whether anti-avoidance measures that tax non-existent income violate taxpayers' rights, particularly property rights. These rights are protected under various national constitutions and international treaties, including the United Nations Universal Declaration of Human Rights and Article 1 of the First Protocol to the European Convention on Human Rights (Convention).¹

This issue is increasingly pertinent as the intersection of tax law and human rights gains prominence in global discussions on tax fairness, effective enforcement, and legal safeguards for taxpayers. However, the issue of whether anti-avoidance rules, and particularly those that reclassify income, may be in breach of the protection of property rights is not widely explored in the literature.² This article therefore contributes to the ongoing debate regarding the balance between effective tax enforcement and the protection of taxpayers' rights from this less-explored angle.

This article develops a general analytical framework for assessing when anti-avoidance measures may infringe upon the right to property under Article 1 of Protocol No 1 to the Convention. To illustrate the operation of this framework in practice, the article employs the Danish provision on loans from closely held companies to their shareholders (in this article, 'loans to shareholders') as a case study.³ The purpose of this case study is not to offer a purely domestic critique, but rather to demonstrate how broadly framed anti-avoidance measures may, in certain configurations, fail to strike a fair balance between the general interest and the protection of individual rights. In that sense, the framework seeks to operationalise the well-established framework for assessing interferences with property rights as developed by the European Court of Human Rights (ECtHR) and tailors it to tax anti-avoidance measures. In doing so, the article moves beyond case-by-case analysis by identifying structural features of anti-avoidance rules that systematically risk upsetting the fair balance required under the ECtHR framework.

The main findings indicate that while taxation is generally regarded as a justified interference with the right to property, anti-avoidance measures may still impose an excessive burden on individual taxpayers. This can occur when such measures operate as mechanical rules, relying on compounded assumptions and providing no effective recourse for taxpayers to challenge their application. As a result, these measures often have an overly broad scope, treating significantly different situations in the same manner. The article suggests that this outcome arises because the design of these

¹ *Universal Declaration of Human Rights*, GA Res 217A (III), UN GAOR, UN Doc A/810 (10 December 1948); *Convention for the Protection of Human Rights and Fundamental Freedoms*, opened for signature 4 November 1950, 213 UNTS 221 (entered into force 3 September 1953), as amended by the *Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms*, opened for signature 20 March 1952, 213 UNTS 262 (entered into force 18 May 1954).

² Notable exceptions include, Peter Hongler, Irma Mosquera, Filip Debelva, Vikram Chand and Julien Chaisse, 'UTPR – Potential Conflicts with International Law?' (2023) 111 *Tax Notes International* 141, 146-148; Reuven S Avi-Yonah, 'Three Implications of *Moore*' (2025) 117 *Tax Notes International* 421; Philip Baker, 'Taxation and the European Convention on Human Rights' [2000] (4) *British Tax Review* 211, 219-228.

³ Section 16E of the *Tax Assessment Act (Ligningsloven (LL))*.

measures prioritises enforcement and the public interest, with insufficient consideration given to the rights and interests of individual taxpayers.

This article concludes by proposing a set of key indicators to establish a framework for identifying tax avoidance measures that may impose an excessive burden on taxpayers, potentially infringing upon their property rights. The analysis offers critical insights for tax practitioners, policymakers and tax authorities, not only in assessing the necessity of re-evaluating existing anti-avoidance frameworks to ensure compliance with fundamental human rights standards but also in guiding the development of future measures. By addressing the delicate balance between effective tax enforcement and the protection of taxpayers' rights, this article invites further reflection on how tax policy can evolve to meet both these challenges simultaneously.

2. WHEN DOES TAXATION BECOME EXPROPRIATION?

Property rights are the rules governing ownership in society; they specify which resources can be owned and by whom and how they can be used.⁴ A common distinction is made between legal and economic property rights. Legal rights refer to those recognised and enforced by the government, while economic rights involve the ability to determine how a resource or asset is used.⁵ Although legal rights are not required to exercise economic rights, they do strengthen and support their enjoyment.

In fact, property rights are fundamental to modern legal systems, whether rooted in civil or common law traditions. Property rights lie at the heart of their foundational principles, such as individual freedom, equality, and economic stability. By defining ownership and possession, legal systems ensure that individuals can control, use, and transfer their assets with confidence. This is conducive to investments, trade, and overall economic development. Clear property rights also reduce disputes and provide predictable mechanisms for resolving conflicts.

This means that property rights are intrinsically connected to a social contract and exist at the intersection of law, the state, politics, and the economy. They represent abstract relationships and are governed by the rule of law.⁶

Thus, property rights play a pivotal role in upholding the rule of law, fostering public trust, and maintaining the overall stability of society. This also means that private and public interests need to be carefully balanced to ensure the legitimacy and fairness of legal systems.

In this context, taxation exemplifies the necessity of balancing public and private interests. Established jurisprudence from the European Court of Human Rights (ECtHR) indicates that, while taxation constitutes an interference with property rights, such interference is generally considered justified if it is proportionate to the public interest. Based on the method of examination of the ECtHR, this section explores how the interests of taxpayers and society are weighed to assess whether taxation constitutes a fair and lawful interference under the rule of law.

⁴ Colin Harris, Meina Cai, Ilia Murtazashvili and Jennifer Brick Murtazashvili, *The Origins and Consequences of Property Rights* (Cambridge University Press, 2020) 5-8.

⁵ Ibid 12; Yoram Barzel, *Economic Analysis of Property Rights* (Cambridge University Press, 1997) 3.

⁶ Bruce G Carruthers and Laura Ariovich, 'The Sociology of Property Rights' (2004) 30 *Annual Review of Sociology* 23, 23 and 40.

However, a detailed examination of relevant ECtHR case law shows that, although the method of analysis is clearly defined, the question of whether a specific tax rule violates property rights remains subject to case-by-case assessment. Moreover, this method is not tailored specifically to anti-avoidance measures. To further develop the analytical framework from the perspective of anti-avoidance, section 3 expands the discussion by examining a relevant recent decision from the Dutch Supreme Court. This case has been selected because it addresses taxation in situations where no actual income is realised by the taxpayer. As such, it offers a valuable foundation for extending the existing framework to encompass anti-avoidance measures that reclassify or reattribute income, or that rely on legal fictions to determine taxable income in situations where taxpayers may have intended to avoid taxation.

2.1 The protection of the right to property

As property rights are the cornerstone to most legal systems, the protection of the right to property also takes up a central position. International and constitutional legal frameworks underscore the importance of the protection of property rights while recognising the state's authority to regulate them in the public interest. Key provisions include:

- Article 17 of the United Nations Universal Declaration of Human Rights affirms: 'Everyone has the right to own property alone as well as in association with others', and 'No one shall be arbitrarily deprived of his property';
- the Fifth Amendment to the US Constitution states: '[No person shall] be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation';
- Article 1 of Protocol No 1 to the European Convention on Human Rights provides: 'No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law'. It further clarifies: '[This] shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary ... to secure the payment of taxes or other contributions or penalties'.

The overarching objective, therefore, is to safeguard against arbitrary governmental seizure while allowing for legitimate and proportionate interference, such as taxation.⁷ This necessitates distinguishing between lawful and excessive interference. To this end, the ECtHR employs the following case examination framework:⁸

(1) Does the matter concern a possession?

⁷ Some taxpayers assert that any attempt by the Internal Revenue Service to collect federal income taxes is unconstitutional. However, such claims consistently have been denied. For example, the US Supreme Court stated in *Brushaber v Union Pacific Railroad Company*, 240 US 1, 24 (1916), that 'it is ... well settled that [the Fifth Amendment] is not a limitation upon the taxing power conferred upon Congress by the Constitution; in other words, that the Constitution does not conflict with itself by conferring upon the one hand a taxing power and taking the same power away on the other by the limitations of the due process clause'; and held in *United States v Sullivan*, 274 US 259, 264 (1927) that filing a tax declaration is not a violation of the privilege against self-incrimination.

⁸ The framework is presented here as an overview: the different elements of this framework are described and examined in sections 2.1.1-2.1.2.3.

- (2) Is there an infringement on the property right regarding that possession?
- (3) Is the infringement justified, because the measure leading to the interference:
 - (a) is required by law; and
 - (b) serves a legitimate aim in the general interest; and
 - (c) is proportionate to the aim pursued?

2.1.1 Determining whether there is a possession that is interfered with

First, it must be established whether the alleged interference concerns property, understood as a possession. However, in the relation to taxation, the ECtHR generally omits this step. This is because it is evident that the payment of taxes falls within the scope of Article 1 of Protocol No 1 as it is explicitly mentioned in paragraph 2 of the Article. This interpretation is further affirmed by the ECtHR in *Darby v Sweden*.⁹

More broadly, the concept of possessions in this context has an autonomous meaning, independent of its formal classification under domestic law.¹⁰ Article 1 of Protocol No 1 does not provide a precise definition, but the ECtHR interprets the term very broadly, assessing its application on a case-by-case basis. Possessions encompass not only formal ownership rights but also extend to rights arising from patents, shares, arbitration awards, established pension entitlements, rental income, and running a business.¹¹ However, Article 1 of Protocol No 1 does not protect potential or conditional claims related to future events, such as the right to acquire property or a potential inheritance. A claim is considered an asset only if it is sufficiently established, enforceable, and represents a substantive interest.¹²

Second, it should be assessed whether there is interference with the property right. This occurs when the interference results from the deprivation of property, the regulation of property, or any other disruptions. This test typically is also relatively straightforward in tax cases, as established jurisprudence indicates that taxation inherently interferes with the right to property as guaranteed by the ECHR, as it deprives the individual of a possession, specifically the amount of money required to be paid.¹³

⁹ *Darby v Sweden*, No. 11581/85 (1990) 187 ECHR (ser A), para 30 (ECtHR).

¹⁰ European Court of Human Rights, *Guide on Article 1 of Protocol No 1 to the European Convention on Human Rights: Protection of Property* (2024) paras 5-9 ('Guide on Article 1').

¹¹ Ibid paras 10-75; Aida Grgić, Zvonimir Mataga, Matija Longar and Ana Vilfan, *The Right to Property under the European Convention on Human Rights: A Guide to the Implementation of the European Convention on Human Rights and Its Protocols* (Council of Europe Human Rights Handbooks No 10, 2007) 7; *Anheuser-Busch Inc v Portugal* [GC], No 73049/01, ECHR 2007-I, para 63 (ECtHR); *Bramelid and Malmström v Sweden*, Nos 8588/79 and 8589/79 (1982) 29 Eur Comm HR 76, paras 10-14 (ECOMHR); *Olczak v Poland*, No 30417/96, ECHR 2002-X, para 60 (ECtHR).

¹² See, for examples of what constitutes a substantive interest, European Court of Human Rights, *Guide on Article 1*, above n 10, paras 5, 22, 56 and 59. See also *Öneryıldız v Turkey* [GC], No 48939/99, ECHR 2004-XII, paras 124 and 129 (ECtHR).

¹³ *Burden v United Kingdom* [GC], No 13378/05, ECHR 2008-III, para 58 (ECtHR); *Špaček s.r.o. v Czech Republic* (ECtHR, Third Section, No 26449/95, 9 November 1999) para 39 ('Špaček'); see also, European Court of Human Rights, *Guide on Article 1*, above n 10, 61-62.

2.1.2 Determining whether the interference is justified

Although the second paragraph of Article 1 of Protocol No 1 to the Convention may be interpreted as offering broad protection to the state regarding taxation, the issue remains within the purview of the Convention, particularly concerning arbitrary confiscation and/or imposing an excessive burden on the taxpayer.

In several cases, the ECtHR and the European Commission of Human Rights (EComHR) have stated that the second paragraph must be interpreted in light of the general principle in the first sentence, requiring a fair balance between the community's general interest and the protection of individual rights. This means that while established jurisprudence generally justifies the imposition of legally prescribed taxes, the means employed must remain proportionate to the objectives pursued.¹⁴ Consequently, financial obligations from taxes or contributions may violate this provision if they impose an excessive burden or fundamentally affect the financial position of the person or entity concerned.¹⁵

In this regard, countries typically have a broad margin of discretion in their policy choices, and the ECtHR would generally not go against a country's policy choices. How it should be determined whether country exceeds this margin of discretion, has been further elaborated on by the EComHR in the case *Wasa Liv Ömsesidigt v Sweden*.¹⁶ The EComHR explains in this case that the relevant principles are:

- (1) The measure causing the interference must be required by law.
- (2) It must have a legitimate aim and not be 'manifestly without reasonable foundation'.
- (3) If the measure has a legitimate aim, it must be proportionate, meaning it should balance public interest with individual rights. It should not impose an unfair or excessive burden on any person or group.

These three requirements are referred to as the *lawfulness test*, the *general interest test*, and the *fair balance test*.

Lawfulness test

In assessing *lawfulness*, the ECtHR primarily examines whether the interference is based on a legal rule, as required by Article 1 of Protocol No 1 in both its first and second paragraphs. The Court interprets the concept of a legal rule broadly,

¹⁴ European Court of Human Rights, *Guide on Article 1*, above n 10, paras 331-332; Baker, above n 2, 221-224.

¹⁵ *Riccardo Travers and 27 Others v Italy*, No 15117/89 (1995) 80-B Eur Comm HR 5, 11 (EComHR); *Ferretti v Italy* (EComHR, First Chamber, No 25083/94, 26 February 1997) 5; *Kaira v Finland* (EComHR, First Chamber, No 27109/95, 15 May 1996) 3 (EComHR); *Gasus Dosier- Und Fördertechnik GmbH v The Netherlands*, No 15375/89 (1995) 306-B ECHR (ser A), paras 55-62 (ECtHR); *Buffalo S.r.l. en liquidation v Italie* (ECtHR, First Section, No 38746/97, 3 July 2003) para 32; *Orion-Břeclav, s.r.o. v Czech Republic* (ECtHR, Second Section, No 43783/98, 13 January 2004) 7; see also Baker, above n 2, 221.

¹⁶ *Wasa Liv Ömsesidigt, Försäkringsbolaget Valands Pensionsstiftelse and a Group of Approximately 15,000 Individuals v Sweden* (EComHR, No 13013/87, 14 December 1988) 12; see also *R.Š. v Hungary* (ECtHR, Second Section, No 41838/11, 2 July 2013) paras 31-62 on the ECtHR precisely following the assessment framework as described in this section.

encompassing not only legislation but also case law.¹⁷ However, the mere existence of a legal basis in domestic law is insufficient to satisfy the principle of lawfulness. The legal basis must also meet qualitative requirements, ensuring compatibility with the rule of law and providing safeguards against arbitrariness.¹⁸ This presupposes that the applicable provisions of domestic law are sufficiently accessible, precise and foreseeable in their application.¹⁹ This entails the following:

- (1) Laws should be publicly accessible, though publication in an official government source is not strictly required, provided they are made available through other means.
- (2) Laws must also be sufficiently precise to enable their applicability to be understood and their consequences reasonably foreseen. However, the required level of precision depends on the nature of the law, its objectives, and to whom it applies.
- (3) Laws must not be applied in an unexpected, excessively broad, or arbitrary manner. A law is considered foreseeable when it includes sufficient procedural safeguards against such interference, ensuring that those affected can seek recourse from the relevant authorities and effectively challenge measures that impact property rights.²⁰

General interest test

Regarding the *general interest test* there is well-established case law affirming that the Convention generally grants states a broad margin of discretion, allowing them to consider political, economic, and social factors in their decisions. Accordingly, the ECtHR generally will respect the legislature's policy choices unless it is devoid of reasonable foundation.²¹ While it is not precisely clear from case law when a policy choice is manifestly without foundation, it does appear safe to assume that a legally imposed tax is rather unlikely to fail this test.²²

Fair balance test

The *fair balance test* assesses the proportionality of a measure, by weighing the public interest on the one hand and the extent to which those affected are confronted with a

¹⁷ Špaček, above n 13, para 54; European Court of Human Rights, *Guide on Article 1*, above n 10, para 113; Rusen Ergec, 'Taxation and Property Rights under the European Convention of Human Rights' (2011) 39(1) *Intertax* 2, 4.

¹⁸ *East West Alliance Limited v Ukraine* (ECtHR, Fifth Section, No 19336/04, 23 January 2014) para 167.

¹⁹ European Court of Human Rights, *Guide on Article 1*, above n 10, paras 111-124; also see, in this context, Lon L Fuller, *The Morality of Law* (Yale University Press, rev ed, 1969) 38-39 on the principles of legality which, according to Fuller, constitute the conditions for the existence of law.

²⁰ *Lekić v Slovenia* [GC] (ECtHR, No 36480/07, 11 December 2018) para 95 (ECtHR) ('*Lekić*') ('In ascertaining whether that condition has been satisfied, a comprehensive view must be taken of the applicable judicial and administrative procedures' (citations omitted)).

²¹ *Béláné Nagy v Hungary* [GC] (ECtHR, No 53080/13, 13 December 2016) para 113 (ECtHR); '*Bulves' AD v Bulgaria* (ECtHR, Fifth Section, No 3991/03, 22 January 2009) para 63; *Wallishauser v Austria* (No 2) (ECtHR, First Section, No. 14497/06, 20 June 2013) para 65; *Sporrong and Lönnroth v Sweden*, No 7151/75 and 7152/75 (1982) 52 ECHR (ser A) para 69 (ECtHR); *M.A. and 34 Others against Finland*, (ECtHR, Fourth Section, No 27793/95, 10 June 2003) 11; *National and Provincial Building Society, the Leeds Permanent Building Society and the Yorkshire Building Society v the United Kingdom*, Nos 21319/93, 21449/93 and 21675/93, ECHR 1997-VII, paras 80-82 (ECtHR); see also Baker, above n 2, 223-228.

²² Ergec, above n 17, 5.

disproportionate or excessive burden on the other hand. This search for balance is inherent in the entire European Convention on Human Rights and is also reflected in the wording of Article 1 of Protocol No 1. The fair balance test is, therefore, often the decisive test in determining there has been a violation of Article 1 of Protocol No 1.

The assessment is conducted on a case-by-case basis. Relevant factors in the context of taxation include procedural considerations, the selection of measures, exceptional circumstances, and applicant-specific issues:

- regarding *procedural factors*, a key issue – intrinsically linked to the principle of lawfulness – is the existence of adequate procedural safeguards against such interference. Accordingly, those affected should have the ability to seek recourse from the relevant authorities and effectively challenge measures that impact their property rights.²³ There are several examples where the Court found that an excessive burden was placed on applicants in cases where there was no possibility of effectively challenging the measure and/or where measures were based on irrefutable presumptions.²⁴ For instance, with regard to the latter, the Court has considered that ‘it was in their legal situation itself that the requisite balance was no longer to be found’;²⁵
- on the *choice of measures* the Court assesses whether the public authorities could have resorted to less intrusive measures to achieve their policy aim. However, it remains cautious not to interfere with the national authorities’ margin of appreciation. Consequently, the mere existence of less-intrusive alternatives does not automatically render the contested legislation unjustified.²⁶ In this regard, a comparative analysis of whether other countries in similar situations have implemented comparable measures may be relevant;²⁷
- in assessing *special circumstances* or *applicant-specific issues*, the ECtHR examines whether the state has adequately considered the particular context of the case.²⁸ For instance, the Court may consider factors specific to the applicant, such as whether they sought to exploit a loophole in the system, or if they are in poor health or a vulnerable financial position.²⁹ These factors may influence the ECtHR’s determination of whether a violation of Article 1 of Protocol No 1 has occurred.

2.2 Relationship between property rights, taxation and other provisions of the European Convention on Human Rights

A measure that interferes with the right to property cannot be considered proportionate if it fails to comply with other provisions of the Convention. In this context, particular attention should be given to Articles 6, 13, and 14 of the Convention.

²³ *Lekić*, above n 20, para 95.

²⁴ European Court of Human Rights, *Guide on Article 1*, above n 10, para 148.

²⁵ *Papachelas v Greece* [GC], No 31423/96, ECHR 1999-II, para 54, citing *Tsomtsos and Others v Greece*, No 20680/92, ECHR 1997-V, para 42.

²⁶ European Court of Human Rights, *Guide on Article 1*, above n 10, paras 151-153.

²⁷ *Zelenchuk and Tsytsyura v Ukraine* (ECtHR, Fourth Section, Nos 846/16 and 1075/16 22 May 2018) para 127.

²⁸ European Court of Human Rights, *Guide on Article 1*, above n 10, para 154.

²⁹ *Ibid* para 160.

Article 6 of the Convention protects the right to have one's civil rights and obligations determined during a fair and timely hearing by an impartial tribunal.³⁰ One such civil right is the right to property. While Article 1 of Protocol No 1 protects the substantive aspects of this right, Article 6 of the Convention provides procedural safeguards.³¹ However, established case law suggests that Article 6 of the Convention is not easily applicable to tax proceedings as the existence of an individual's tax obligation with respect to the state falls exclusively under public law and therefore does not concern a civil right.³² Although Judge Bonello, in his dissenting opinion in *Ferrazzini v Italy*, argued that the judgment misinterpreted the term 'civil rights' and that tax proceedings should fall within the scope of Article 6 of the Convention, it remains generally accepted that the imposition of legally prescribed taxes does not fall under its protection.³³

Another provision protecting procedural requirements is Article 13 of the Convention. However, regarding property rights (and taxation) the ECtHR prefers assessing the procedural safeguard of the right to an effective remedy directly within the fair balance test under Article 1 of Protocol No 1.³⁴

Article 14 of the Convention prohibits discrimination and serves as a complementary safeguard to the substantive provisions of the Convention and its Protocols. In this context, it ensures that property rights can be enjoyed without being subjected to less favourable treatment than others in comparable situations. This also applies in principle to tax cases.³⁵ Moreover, Article 14 also protects against the failure of the state to treat different situations differently.³⁶ The latter may be particularly relevant in tax cases where an anti-avoidance rule is overly broad.

The burden falls on the state to demonstrate that any differential treatment in similar situations, or identical treatment in significantly different circumstances, is lawful, pursues a legitimate aim, and is proportionate. Regarding property rights in the context of taxation, states are granted a wide margin of appreciation – significantly wider than in cases involving distinctions based on gender, nationality, or social status.³⁷ In this respect, the test under Article 14 closely resembles the assessment of whether an interference is justified under Article 1 of Protocol No 1.

3. CAN NON-EXISTENT INCOME BE TAXED?

While most tax systems adhere to the ability-to-pay principle, the ECtHR's method of examination suggests that, due to the broad margin of appreciation afforded to states, a violation of this principle does not automatically constitute an unjustified interference

³⁰ European Convention on Human Rights, above n 1, Art 6(1).

³¹ Grgić et al, above n 11, 17.

³² *Ferrazzini v Italy* [GC], No 44759/98, ECHR 2007-VII, para 29 ('*Ferrazzini*'); *Jussila v Finland* [GC], No 73053/01, ECHR 2006-XIV, para 29.

³³ *Ferrazzini*, above n 32, 16; Ergec, above n 17, 6.

³⁴ *Iatridis v Greece* [GC], No 31107/96, ECHR 1999-II, para 65; European Court of Human Rights, *Guide on Article 13 of the European Convention on Human Rights: Right to an Effective Remedy* (2024) paras 263-264; Ergec, above n 17, 6 and 10.

³⁵ European Court of Human Rights, *Guide on Article 14 of the European Convention on Human Rights and on Article 1 of Protocol No 12 to the Convention: Prohibition of Discrimination* (2024) paras 2-4 ('*Guide on Article 14*').

³⁶ *Thlimmenos v Greece* [GC], No 34369/97, ECHR 2000-IV, para 44; European Court of Human Rights, *Guide on Article 14*, above n 35, paras 44-47.

³⁷ Grgić et al, above n 11, 16.

with property rights. This observation prompts the question of whether a state may go so far as to tax non-existent income. To address this issue, the article analyses a recent Supreme Court case which examines whether income must be realised to be subject to taxation.

3.1 The Netherlands Supreme Court case: *Kerstarrest*

On 24 December 2021 the Dutch Supreme Court ruled that the Dutch tax legislation on deemed income on assets and capital (in this article, ‘Box 3’) conflicts with Article 1 of Protocol No 1 in combination with Article 14 of the Convention.³⁸

The case concerned Box 3, which is a component of the Dutch personal income tax system targeting income derived from assets and capital. However, rather than taxing the actual income generated by these assets, Box 3 applies a flat-rate tax on a deemed return, subject to a specified threshold.

Between 2001 and 2016, taxpayers were required to pay a 30 per cent tax rate on a deemed return of 4 per cent on the total value of their assets within the Box 3 tax base. This 4 per cent rate was based on the legislature’s assumption – supported by historical data – that asset holders could achieve such returns over the long term. Although returns on some bank savings accounts were lower, the tax-exempt capital threshold provided relief for small savers. Additionally, lower returns or losses in certain years were expected to be offset by higher gains in others. The strong economic growth and investment returns of the 1990s further reinforced this assumption. The legislature also favoured this system because it ensured stable and predictable tax revenues with minimal annual fluctuations, as well as that it reduced compliance and enforcement costs.

However, the extended period of very low interest rates eventually revealed the inadequacy of this approach. In response, the legislature amended Box 3 to differentiate between the assumed returns on bank savings and those on other assets, such as real estate and shares.

This resulted in the situation that for the tax year 2017, these assumed returns were set at 1.63 per cent for bank savings and 5.39 per cent for other assets. However, the calculation of the tax base was not based on a taxpayer’s actual asset composition but rather on a legislatively prescribed assumption. Taxpayers with total Box 3 assets below approximately EUR 75,000 were assumed to hold two thirds of their assets in bank accounts and one third in other assets. For those with assets between EUR 75,000 and EUR 975,000, it was assumed they held 21 per cent in bank savings and 79 per cent in other assets. For taxpayers exceeding this threshold, it was assumed they held 100 per cent of their Box 3 assets in other assets. This approach, thus, resulted in 2017 in an effective deemed income for the first group of 2.87 per cent, for the second group of 4.60 per cent and for the last group of 5.39 per cent.³⁹ The total assumed return was then taxed at a flat rate of 30 per cent.⁴⁰

³⁸ *Kerstarrest*, 24 December 2021, 21/01243, Hoge Raad (‘*Kerstarrest*’).

³⁹ Both the deemed income on bank savings and the asset composition would be adjusted each year.

⁴⁰ Conclusion Advocate-General, 1 November 2021, 21/01243, paras 5.18-5.23.

3.1.1 *Opinion of the Court*

In its judgment, the Dutch Supreme Court adheres strictly to the ECtHR's prescribed method of examination. The Court begins by affirming that taxation constitutes an interference with the right to property. While recognising the legislature's broad margin of appreciation, the Court emphasises the necessity of maintaining a fair balance between the general interest and the rights of individual taxpayers. It further asserts that a tax system that is discriminatory under Article 14 of the Convention fails to meet this standard.⁴¹

Furthermore, it argues that the system of deemed income composition results in significantly different situations being treated identically. While the Court acknowledges that a lump-sum approach in tax legislation is not inherently problematic and may lead to uniform treatment of different cases, it stresses that the legislature remains obligated to ensure that deemed income rules closely reflect actual economic realities.⁴²

In this case, the Court placed particular emphasis on the disproportionate financial burden imposed on taxpayers that actively choose to have a low-risk investment profile. It noted that these taxpayers either faced excessive taxation because of the lump-sum approach of Box 3 or were compelled to assume a greater financial risk than they might be comfortable with to mitigate this burden. Consequently, the Court concluded that the state had overstepped its authority by unduly restricting taxpayers' freedom to manage their property.⁴³

The Court emphasised that while the public interest in ease in applying tax rules and revenue stability is significant, it cannot override the individual rights of taxpayers to the extent that it fails the fair balance test. Consequently, the taxation of non-existent income lacks sufficient justification. The Court concluded that the state exceeded its margin of appreciation in designing tax legislation, and thus that the Box 3 rules violate Article 1 of Protocol No 1 in combination with Article 14 of the Convention.⁴⁴

Since this judgment, there has been a highly politicised debate on how Box 3 should be redesigned as to uphold the fair balance between public and individual interests. This debate is still ongoing and is outside of the scope of this article.

This case demonstrates that the answer to the question of whether non-existent or unrealised income can be taxed is more complex than it may initially seem. The Dutch Supreme Court has affirmed that there is no inherent issue with the concept of deemed income, provided that it satisfies the fair balance test established by the ECtHR. Consequently, taxation beyond a taxpayer's actual income is not automatically a human rights violation. This reflects the broad margin of appreciation granted to states in designing tax policies and regulations that align with their legal frameworks, as well as their political and social priorities. However, legal safeguards exist to prevent arbitrary taxation and to ensure that tax measures do not impose an excessive burden on taxpayers.

⁴¹ *Kerstarrest*, above n 38, para 3.2.1.

⁴² *Ibid* para 3.2.2.

⁴³ *Ibid* paras 3.3.2-3.3.5.

⁴⁴ *Ibid* para 3.5.

4. RECLASSIFICATION OF INCOME AS ANTI-TAX AVOIDANCE MEASURE

The issue of when taxation may be excessive and disproportional is further explored by examining a specific Danish anti-avoidance rule: the reclassification of income when an individual shareholder takes a loan from their own closely held company. This type of anti-avoidance rule is common in many countries and, so far, appears to be relatively uncontested, particularly with regard to claims of violations of property rights. The purpose of this case study is to identify indicators for when there is non-existent income and when taxing that income could constitute a human rights violation because the states exceed their broad margin of appreciation granted in the ECtHR framework.

4.1 Case study Denmark: taxing loans from a closely held company to its shareholders

In Denmark, section 16E of the *Tax Assessment Act* (LL section 16E) entered into force in 2013 with the objective of closing loopholes and enhancing compliance. The provision aims to deter shareholders from exploiting tax-free loans by eliminating the financial incentive for individual shareholders to borrow from their closely held companies instead of receiving remuneration through salaries or dividends.⁴⁵ The preparatory works show that the grounds for implementing this rule were several compliance studies by the Danish tax authority which have shown that loans to shareholders are often used to finance private consumption as well as that there is often no intention to repay these loans.⁴⁶

Specifically, LL section 16E stipulates that all loans to shareholders are subject to immediate taxation upon issuance, thereby preventing tax avoidance through disguised distributions. Such loans are treated as withdrawals without repayment obligations and are taxed as dividends, salary, or other forms of taxable income, depending on the specific circumstances. This rule applies broadly to shareholders with controlling influence as well as loans to their close relatives, ensuring that taxation occurs in all cases where a shareholder has the discretion to take out a loan instead of receiving salary or dividends. This also ensures that taxation applies even if the loan is structured through an intermediary entity, preventing circumvention via group structures.

Moreover, there is no possibility for the shareholder to escape the impact of the measure by demonstrating that the loan has been issued at arm's length. In fact, even if (part of) the loan is repaid, this does not cancel or reduce the tax already levied at issuance. The rationale for this approach is that the underlying purpose of the rule would be largely lost if taxation could simply be lifted upon repayment.⁴⁷

The preparatory works describe that prior to the enactment of LL section 16E the tax authorities already had the means to tax loans to shareholders that were not at arm's

⁴⁵ *Lov om ændring af ligningsloven, kursgevinstloven, skattekontrolloven og kildeskatteloven (Beskatning af aktionærlån, fortryk og låsning af udvalgte indberetningspligter, bedre forskudsproces m.v.)* LOV nr 926 af 18/09/2012. Available at: <<https://www.retsinformation.dk/eli/lt/2012/926>> (accessed 4 February 2025).

⁴⁶ LFF 2012-08-14 nr 199, 'Ændring af ligningsloven, kursgevinstloven, skattekontrolloven og kildeskatteloven (Beskatning af aktionærlån, feltlåsning for selvstændigt erhvervsdrivende, bedre forskudsproces m.v.)' paras 2, 3.1, 3.5.3 and 4.2. Available at: <<https://www.retsinformation.dk/eli/ft/201112L00199>> (accessed 4 February 2025).

⁴⁷ See Danish Revenue Agency, 'Den Juridiske Vejledning' (legal guidance) (last updated 30 January 2026) C.B.3.5.3.3 (Aktionærlån (shareholder loans)). Available at: <<https://info.skat.dk/data.aspx?oid=1946441&vid=220619>> (accessed 25 May 2026).

length.⁴⁸ Any interest shortfall on loans to shareholders should have been treated as taxable income. However, enforcement on loans to shareholders has been weak. Moreover, this only provides limited adjustments when the interest rate is not at market levels.

Another major enforcement challenge was that prior to LL section 16E taxation of loans to shareholders upon issuance could only occur when it was clear at that time that the loan would not be repaid because there was never any intention to do so, or because the shareholder lacked the financial capacity to repay. Determining intent required an assessment of the shareholder's motivations, while assessing financial capacity necessitated an extensive review of their overall economic situation. Both assessments were difficult for the Danish tax authorities to conduct effectively. This meant essentially that if a shareholder was solvent when taking out the loan, taxation could not be imposed – even if they later became insolvent and failed to repay the loan.

This means that LL section 16E functions as an efficiency measure to enhance enforcement while also serving a preventive purpose. By operating under the fundamental assumption that all loans to shareholders are, in essence, mechanisms for tax avoidance, the rule mandates taxation at the time of issuance. This approach strengthens compliance and reduces enforcement costs.

4.1.1 Recent Danish case law on LL section 16E

There have been a few recent judgments of the Danish Supreme Court on LL section 16E which are relevant here. These judgments primarily concern the situation of successive withdrawals and repayments and the application of LL section 16E.

One recent Supreme Court judgment addressed a case in which the applicant made multiple withdrawals from their company's escrow account and subsequently repaid these amounts using net salary and net dividend receipts.⁴⁹ This meant that the applicant was taxed multiple times, first on each of the withdrawals, as these resembled loans to shareholders, and again on the gross salary and dividend payments used to repay these loans. Based on this the applicant claimed that LL section 16E should be regarded as a criminal penalty within the meaning of Article 6 of the Convention and, as such, is in breach of the Convention. In its 2024 judgment, the Danish Supreme Court held that it is an anticipated and accepted consequence of LL section 16E that the repayment of previously taxed withdrawn amounts does not entitle the individual to subsequently withdraw equivalent amounts without incurring additional taxation. Consequently, the Supreme Court upheld the Eastern High Court's earlier decision, concluding that the taxation of a loan to shareholders in accordance with LL section 16E does not constitute a penalty within the meaning of the Convention. In this context, the High Court emphasised that the repayment of the loan to shareholders, in itself, did not trigger any additional taxation for the shareholder.⁵⁰

In two other recent Supreme Court judgments, the Court examined whether successive withdrawals and repayments on an ongoing basis should be considered normal business transactions and, therefore, not subject to taxation – particularly in cases where new

⁴⁸ LFF 2012-08-14 nr 199, above n 46, para 3.1.2.

⁴⁹ BS-27081/2023-HJR, 18 January 2024, Højesteret.

⁵⁰ BS-44216/2021-OLR, 22 May 2023, Østre Landsret, 22.

withdrawals were made following the repayment of previously taxed amounts.⁵¹ In both cases, the Supreme Court confirmed that successive withdrawals, which either created new debt to the company or increased an existing debt, constituted loans falling within the scope of LL section 16E. Only in the specific instance where the individual loan is taken out as part of a normal business transaction, eg, as part of a trade on terms similar to those between independent parties, should taxation not occur, cf LL section 16 E, subsection 1, second sentence. However, the Supreme Court found that this condition was not met in either of the cases under review, confirming the Western High Court's decisions.

Notwithstanding these judgments, the legislature has addressed the issue of successive withdrawals and repayments through an amendment to LL section 16E, effective from 2026. This amendment ensures that in cases of repayment followed by a subsequent reissuance of a loan to shareholders, the tax value of the repaid amount can be credited against the tax liability arising from the newly issued loan.⁵² It should be noted that repayment of the loan does not entitle the taxpayer to a refund of the tax previously paid. A credit may only be applied to offset the tax due if a new loan is issued following the repayment. This may resolve any possible outstanding issues concerning the compatibility of LL section 16E with Article 6 of the Convention. However, it does not address potential concerns related to Article 1 of Protocol No 1, which remains the primary focus of this analysis.

4.2 Taxation diverges from economic reality in arm's length loan situations

Under LL section 16E, the shareholder is taxed at the time of issuance of any loan to shareholders. Since Denmark treats all loans to shareholders as disguised profit distributions, its taxation framework diverges from the economic reality when the loan is issued at arm's length. Paradoxically this means that compliant shareholders may face a higher tax burden than non-compliant shareholders under the blanket approach of LL section 16E. This can be demonstrated by considering two scenarios:

(1) Non-arm's length loan scenario

If the loan to shareholders is not at arm's length – meaning, there is neither an intention nor an obligation to repay – it constitutes a disguised profit distribution rather than a genuine loan. This would have the following direct effects:

- (i) Denmark taxes the issuance of the loan as a dividend distribution under LL section 16E at the shareholder level;
- (ii) the economic value of the company decreases in proportion to the loan amount, as no repayment or interest payments will be made.

This implies that both taxation at the shareholder level and the valuation of shares reflect economic reality. Specifically, the shareholder enjoys realised income, as the loan is not required to be repaid, thereby increasing the shareholder's total assets. Conversely, the company's value decreases due to the reduction in its economic assets. Subsequently,

⁵¹ BS-44644/2021-HJR, 8 February 2023, Højesteret; BS-30246/2021-HJR, 30 August 2022, Højesteret.

⁵² *Lov om ændring af Ligningsloven, Afskrivningsloven, Opkrævningsloven og Skatteindberetningsloven*, LOV nr 749 af 20/06/2025, para 16. Available at: <<https://www.retsinformation.dk/eli/lt/2025/749>> (accessed 26 May 2026).

when the shares are eventually sold, the taxable capital gain will be based on this lower economic value of the company.

(2) *Arm's length loan scenario*

If the loan to shareholders is structured at arm's length and is expected to be repaid, the following occurs:

- (i) Denmark still taxes the loan to shareholders at issuance under LL section 16E, treating it as a dividend payment, despite the expectation of repayment;
- (ii) however, unlike in the first scenario, the company's economic value is not immediately reduced by the loan amount. Instead, the balance sheet reflects a receivable, which is expected to be repaid along with interest, potentially increasing the company's value.

In the second scenario, taxation at the shareholder level does not correspond to economic reality, whereas the company's economic valuation accurately reflects it. Specifically, the shareholder has not realised any actual income, as the loan must be repaid under arm's length conditions. However, although the shareholder's total assets have not increased, they are still subject to taxation on this non-existent income. Simultaneously, the company's valuation remains unchanged, as the value of its total assets have not been reduced due to the loan to shareholders. Consequently, when the shares are eventually sold, the capital gain will be calculated based on this higher company valuation, compared to the first scenario.

In conclusion, the value of the loan to shareholders is taxed only once in the first scenario – as dividend income to the shareholder – whereas in the second scenario, it is taxed twice: first as dividend income to the shareholder and later as a capital gain upon the sale of the shares. Thus, the combined tax burden on the shareholder is higher in the scenario where the loan is at arm's length than in the scenario where the loan is not at arm's length.

4.3 Comparative rules in other states

It can generally be observed that many jurisdictions have implemented anti-abuse provisions to prevent the issuance of non-arm's length loans as a means of avoiding taxation on de facto dividend or salary payments. Additionally, it is likely that other countries have introduced measures to facilitate enforcement by alleviating the relatively high burden of proof placed on tax authorities in demonstrating that a loan to shareholders is not at arm's length. The question, however, is whether such measures operate as broadly formulated anti-avoidance rules that may impose a disproportionate burden on taxpayers, and extend to encompass all loans to shareholders, including those that meet arm's length conditions, as is the case with LL section 16E in Denmark.

One example is the United Kingdom: section 455 of the *Corporation Tax Act 2010* (UK) is an anti-avoidance provision that subjects all loans to shareholders exceeding GBP 15,000 and remaining outstanding for more than nine months after the end of the accounting period to income tax. However, this tax is levied on the closely held company as if it were corporation tax. The tax is eligible for repayment once the loan itself is repaid. However, on 30 October 2024, the UK government announced plans to tighten these rules. The repayment mechanism has facilitated arrangements involving

groups of companies or associated entities, whereby new loans are issued and subsequently repaid in a cyclical manner, preventing a charge under section 455 from arising on increasing amounts of extracted funds. Effectively this tightening means that where companies and shareholders are attempting to avoid the section 455 charge in this manner, tax is payable regardless of whether there has been a repayment.⁵³ This means that the UK legislation does not go quite as far as the Danish LL section 16E, as it is much more targeted on abusive – non-arm’s length – situations.

Another example is the Netherlands: as of January 2023, the Netherlands introduced legislation to restrict excessive borrowing by shareholders from their closely held companies. Although this measure constitutes a blanket rule by taxing all loans to shareholders as dividends upfront, regardless of whether they are at arm’s length, it includes certain mitigating provisions. Specifically, the Dutch legislation establishes a general threshold of EUR 500,000, ensuring that loans below this amount remain unaffected. Additionally, loans issued for the purchase of a shareholder’s own residence are exempt from this rule.⁵⁴ Consequently, the scope of the Dutch regulation is considerably less intrusive than that of LL section 16E.

Based on these examples, it can be inferred that while near-comparable anti-avoidance rules may exist, an equally far-reaching measure appears to be relatively uncommon. Consequently, it is presumable that LL section 16 E is a good example demonstrating that formulating an anti-avoidance measure so broadly that it also includes non-abusive situations is an explicit design choice by the jurisdiction enacting it, and, therefore, may be criticised for not striking a fair balance due to discriminatory nature of the measure, as it treats significantly different situations the same.

At the same time, a common feature across these regimes is the reliance on simplified assumptions regarding taxpayer behaviour. To the extent that such rules do not adequately distinguish between arm’s length and non-arm’s length situations, they still might risk operating as de facto presumptions of abuse. This suggests that the concerns identified in the Danish case are not unique, but reflect a broader structural feature of certain anti-avoidance rules. This is because such rules often rely on legal fictions that substitute a general assumption of abuse for an individualised assessment, thereby increasing the risk that a measure becomes disproportionate. This reinforces the point that anti-avoidance measures may, in practice, extend beyond their intended target and thereby raise concerns under the fair balance test.

4.4 Does LL section 16E impose an excessive burden on taxpayers?

This article does not question whether anti-avoidance measures such as LL section 16E pursue legitimate objectives. Eliminating opportunities to extract value from closely

⁵³ *Corporation Tax Act 2010* (UK) ss 455 and 456; HM Revenue and Customs, ‘Corporation Tax – Close Company Shareholders – Anti-Avoidance Measure, Policy Paper’ (30 October 2024) <<https://www.gov.uk/government/publications/corporation-tax-close-company-shareholders-anti-avoidance-measure>> (accessed 5 February 2025).

⁵⁴ NL Wet IB 2001, sections 4.14a-4.14d; Belastingdienst, ‘Geld Lenen van Uw BV’ (undated). Available at: <https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/werk_en_inkomen/bijzondere_situaties/geld_lenen_van_uw_bv/excessief-lenen-van-bv-beperkt> (accessed 5 February 2025).

held companies without immediate taxation is, in and of itself, a valid and justified policy choice.

However, the question under the ECtHR framework is not whether the objective is legitimate, but whether the means employed maintain a fair balance between the general interest and the protection of individual rights. Based on the ECtHR's method of examination, it can be concluded that the broad scope of LL section 16E may impose an excessive burden on taxpayers, particularly in cases where a loan to shareholders is issued under arm's length conditions. This conclusion is supported by the following considerations.

First, it is undisputed that taxation constitutes an interference with property rights, which is generally accepted within certain limits. To determine whether the interference by LL section 16E is justified, it must be assessed whether it meets the requirement of proportionality.

The first condition for this justification is that the interference is lawful. The requirement of lawfulness comprises two main aspects: substantive (legislation) and procedural (legal safeguards). The latter means that those affected must have the ability to seek recourse from the relevant authorities and effectively challenge measures that impact their property rights. Notably, the legislature has not included a specific recourse mechanism in LL section 16E, and this omission appears to be a deliberate policy choice. While taxpayers retain the standard right to challenge tax assessments, the legal fiction established by LL section 16E effectively authorises tax authorities to impose taxation, rendering such recourse circular and insufficient as a procedural safeguard under the ECtHR framework. Therefore, it is arguable that LL section 16E does not satisfy the lawfulness requirement.

It is generally accepted that LL section 16E pursues a legitimate aim, as preventing tax deferral or avoidance serves the public interest. Accordingly, the provision fulfils the general interest test.

Regarding the fair balance test, it has been demonstrated that for an interference to be proportional, procedural factors, the choice of measure, and special circumstances must be considered. Moreover, a measure cannot be deemed proportional if it constitutes discrimination within the meaning of Article 14 of the Convention.

With respect to procedural factors, it is problematic that LL section 16E is based on an irrefutable presumption that the principal purpose of all loans to shareholders is to avoid taxation. The absence of legal recourse or the possibility to effectively challenge the application of this measure suggests a potential failure to maintain a fair balance between the public interest and the rights of individual taxpayers. Such irrebuttable presumptions effectively preclude an individualised assessment, which is central to the proportionality analysis under the ECtHR's fair balance test.

Furthermore, the decision to extend the scope of LL section 16E to all loans to shareholders without distinguishing between arm's length and non-arm's length transactions raises concerns. First, Denmark's approach to preventing tax avoidance in this area appears more intrusive than that of other jurisdictions.⁵⁵ Second, this measure

⁵⁵ This does not mean that the approaches of other jurisdiction are necessarily in compliance with Article 1 of Protocol No 1. In fact, some assert that also the – less intrusive – Dutch measure is still in breach of the

may constitute discrimination under Article 14 of the Convention, as it applies the same treatment to significantly different situations. Specifically, it imposes a substantial financial burden on taxpayers conducting business with their closely held company at arm's length.

Additionally, the blanket approach of the legal fiction fails to consider the specific circumstances of individual cases or applicant-specific issues. For instance, it does not take into account whether the taxpayer intends to defer or avoid taxation.

Finally, the legal fiction does not accurately reflect economic reality for all taxpayers, particularly those who are not attempting to avoid or defer taxation. Moreover, this departure from economic reality may lead to the paradoxical outcome that a higher financial burden is placed on taxpayers who comply with the arm's length principle compared to those who do not. These taxpayers have no recourse against this additional burden, as the legal fiction allows Denmark to tax the loan to shareholders upfront. In addition, this financial burden may be even greater in cross-border situations, including cases where there is no intention to emigrate to another state when the loan is issued. In such instances, future capital gains may be subject to taxation in both Denmark and the other jurisdiction, potentially resulting in double taxation without effective recourse for the taxpayer.

Thus, there are several grounds that may support the conclusion that the interference of LL section 16E should not be considered proportional. Taken all these considerations together, it is concluded here that LL section 16E does not pass the fair balance test.

A key factor in reaching this conclusion is the (unintended) consequence of the legal fiction under LL section 16E, which imposes an excessive financial burden on taxpayers who, in fairness, should not be subject to an anti-avoidance measure. Moreover, it is clear that much less intrusive policy options are available even with consideration of lightening the burden of proof for the tax authorities.⁵⁶ The recently proposed amendments of LL section 16E do lessen the financial burden on taxpayers somewhat with regard to successive withdrawals and repayments, but this does not address the fundamental problems of the legal fiction itself in relation to Article 1 of Protocol No 1 stemming from the lack of a proper distinction between arm's length loans and non-arm's length loans.

If the goal of LL section 16E is to prevent disguised distributions, it should not automatically also apply to genuine arm's length loans. This basic principle should remain the same, even if earlier compliance reports suggest that loans to shareholders are often used to avoid taxes. Otherwise, the current rule could unfairly punish compliant taxpayers. The provision could, therefore, be revised to include a safe harbour rule for loans to shareholders that meet objective arm's length criteria (eg, documented repayment schedules, market interest rates), or take inspiration from the design of similar anti-avoidance rules in other states that do include some form of safe harbour rule.

European Convention on Human Rights. See AJC Perdaems and MNH Hintzen, 'Uitholling van het Eigendomsrecht door Ficties Excessief Lenen' (2024) *Weekblad Fiscaal Recht*, WFR 2024/263.

⁵⁶ See, for example, Alexander F Peter, 'Conseil d'Etat Confirms Interest-Free Loan Is Not Arm's Length' (2025) 117(3) *Tax Notes International* 481, 482 on the possibilities regarding the division of the burden of proof between the tax authorities and taxpayer *vis-à-vis* acts that are 'abnormal by nature'.

5. WHEN DO ANTI-AVOIDANCE MEASURES AND PROPERTY RIGHTS COLLIDE?

While the ECtHR has developed a well-established framework for assessing interferences with property rights, the application of the fair balance test in the context of anti-avoidance measures remains relatively underdeveloped. This is in part because the assessment of whether anti-avoidance measures breach property rights must be made on a case-by-case basis. However, this does not mean that more general indicators to make the assessment of whether an anti-avoidance measure risks placing an unjustifiably excessive burden on a taxpayer cannot be identified. This article therefore seeks to operationalise the fair balance test by identifying a set of indicators that are particularly relevant in the context of anti-avoidance rules, especially those relying on legal fictions or reclassification of income.

To determine whether a specific tax anti-avoidance measure potentially infringes upon property rights, the following five indicators can serve as a framework for evaluation, further elaborating on the ECtHR method of examination, particularly the fair balance test:

- (i) *disregard for the ability-to-pay principle*: when taxation is based on a legal fiction that diverges significantly from economic reality – such as relying on multiple compounded assumptions – the measure may impose taxation despite the absence of actual income. This may contradict the ability-to-pay principle, leading to disproportionate financial burdens on taxpayers;
- (ii) *mechanical application of rules*: if the legal fiction is applied uniformly without accounting for varying circumstances, it may fail to maintain proportionality. Measures that do not consider special circumstances risk treating dissimilar situations identically, leading to potentially unjust outcomes;
- (iii) *overly broad scope*: a tax measure may breach property rights if its scope extends to situations where no tax abuse has occurred. Legal fictions that indiscriminately affect compliant taxpayers, without evidence of abusive behaviour, risk imposing excessive burdens;
- (iv) *absence of recourse*: property rights are further endangered when taxpayers have no legal avenue to challenge the application of a tax measure. The inability to seek redress undermines procedural safeguards required to protect against unjust interference;
- (v) *emphasis on administrative efficiency over effectiveness*: if the primary consideration in the design of a legal fiction prioritises ease of enforcement over individual taxpayer rights, the measure may become excessively intrusive. Tax provisions that compromise proportionality for administrative convenience, without considering less intrusive alternatives, risk infringing upon property rights.

As demonstrated in the analysis of LL section 16E above, several of these indicators may be present simultaneously, illustrating how broadly formulated anti-avoidance rules may, in their cumulative effect, give rise to a disproportionate interference with property rights.

These indicators are not intended to be exhaustive, nor must they all be present for a tax anti-avoidance measure to be at risk of infringing on property rights. Rather, it is

contended that when a measure triggers two or three of these indicators, there are sufficient grounds to further examine the specific provision for potential breaches of a taxpayer's property rights. As such, these indicators should be viewed as a risk assessment tool for identifying potential interferences with property rights under the ECtHR framework specifically for tax anti-avoidance measures, rather than as a definitive test.

These indicators are valuable not only for assessing whether existing anti-avoidance measures require re-evaluation to ensure compliance with fundamental human rights standards, but also for guiding the development of future measures that effectively balance robust tax enforcement with the protection of taxpayers' fundamental rights. In this way, the framework contributes to a more structured and transparent evaluation of the limits of anti-avoidance measures within a human rights context.

Getting nudges right – preserving the equilibrium between taxpayer rights and tax authority powers when nudging taxpayers

John Bevacqua* and Amna Tariq Shah-Kemp**

Abstract

Tax administrations increasingly rely on behavioural nudges to support compliance and encourage timely lodgement and payment. These interventions are low cost, scalable, and modestly effective. As a result, nudging has shifted from an experimental tool to a routine feature of contemporary tax administration, often embedded in digital systems and AI-enabled processes. Despite this expansion, legal and rights-based analysis of tax nudging has remained limited. Existing scholarship focuses largely on behavioural effectiveness and revenue outcomes, with little attention paid to how nudges may affect the equilibrium between tax authority powers and taxpayer rights. This gap is particularly significant where nudges are deployed at scale, personalised through data analytics, or used in contexts adjacent to enforcement. This article addresses that gap by examining the legal and governance implications of tax nudges across three core contexts: nudges used to provide information or advice, raising issues of legal status, reliance, and administrative discretion; nudges used for non-compliance detection, raising concerns about transparency, bias, and over-compliance; and deterrence and debt collection nudges, where automation may amplify error, accountability, and legitimacy risks. It proposes principles to guide the design and governance of nudges in a manner that preserves taxpayer rights, maintains trust, and supports legitimate administration.

Keywords: tax nudges, taxpayer rights, behavioural tax compliance, tax administration

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1. INTRODUCTION

A ‘nudge’ is an intervention that ‘alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives’.¹ Nudges have become a popular policy tool globally,² including in tax administration, where they aim to simplify compliance, reduce mistakes and provide timely reminders or information to taxpayers. These interventions are attractive because they are inexpensive to implement and, in many cases, have been shown in multiple empirical studies to deliver modest but measurable improvements in voluntary compliance.³

Across tax systems, nudges now take many forms, from pop-up messages flagging inconsistencies in returns, to personalised SMS reminders, to behavioural prompts encouraging timely payment of tax debts.⁴ Technological systems have accelerated the uptake of nudges by enabling automated and highly tailored interventions.⁵

However, this rapid expansion has occurred with comparatively little examination of an essential issue. Although the effectiveness of tax nudges has been widely studied, far less attention has been given to the legal and rights-based implications of these interventions.⁶ Nudges, particularly when embedded in digital systems and delivered at scale, can influence decision-making in ways that blur the line between assistance and pressure.⁷ They may reshape expectations about taxpayer behaviour, expand the practical reach of tax authority powers, or unintentionally burden certain groups if based on opaque or biased algorithms.⁸ Despite these risks, existing research tends to focus on behavioural outcomes rather than on whether nudges alter the longstanding equilibrium between tax authority powers and responsibilities, and the rights and protections afforded to taxpayers.⁹

¹ Richard H Thaler and Cass R Sunstein, *Nudge: Improving Decisions About Health, Wealth, and Happiness* (Penguin, rev ed, 2009) 6.

² The use of nudges is part of a broader international recognition of the importance of behavioural insights in developing and implementing effective policies. For a good summary by the World Bank of the adoption of behavioural insights including nudges across 10 jurisdictions including Australia, see Zeina Afif, William Wade Islan, Oscar Calvo-Gonzalez and Abigail Goodnow Dalton, *Behavioral Science Around the World: Profiles of 10 Countries* (World Bank Group, 2019). See also Kathleen DeLaney Thomas, ‘Taxing Nudges’ (2021) 107(3) *Virginia Law Review* 571.

³ For example, Armenak Antinyan and Zareh Asatryan, ‘Nudging for Tax Compliance: A Meta-Analysis’ (2025) 135(668) *Economic Journal* 1033; Hunt Allcott, Daniel Cohen, William Morrison and Dmitry Taubinsky, ‘When Do “Nudges” Increase Welfare?’ (2025) 115(5) *American Economic Review* 1555; and Michael Hallsworth, John A List, Robert D Metcalfe and Ivo Vlaev, ‘The Behaviorist as Tax Collector: Using Natural Field Experiments to Enhance Tax Compliance’ (2017) 148 *Journal of Public Economics* 14.

⁴ Thaler and Sunstein, above n 1.

⁵ See Organisation for Economic Co-operation and Development (OECD), *Tax Administration 3.0: The Digital Transformation of Tax Administration* (OECD, 2020); and OECD, *Governing with Artificial Intelligence: The State of Play and Way Forward in Core Government Functions* (OECD Publishing, 2025) 171-175 (‘*Governing with Artificial Intelligence*’).

⁶ Antinyan and Asatryan, above n 3.

⁷ Cass R Sunstein, *The Ethics of Influence: Government in the Age of Behavioral Science* (Cambridge University Press, 2016) 94-98.

⁸ OECD, *Governing with Artificial Intelligence*, above n 5, 174-175.

⁹ See Koos Boer and Hans Gribnau, ‘Tax Nudges: Legal Aspects of Behaviourally Informed Strategies to Enhance Tax Compliance’ in Sjoerd Goslinga, Lisette van der Hel-van Dijk, Peter Mascini and Albert van Steenberghe (eds), *Tax and Trust: Institutions, Interactions and Instruments* (Eleven International Publishing, 2019) 209, 230-231.

This gap in the literature provides the central motivation for this article. As nudges move from peripheral tools to central components of tax administration, it becomes increasingly important to understand how their design and deployment can affect fairness, transparency and procedural rights.¹⁰ Without such analysis, tax authorities may inadvertently undermine taxpayer trust, compromise voluntary compliance, or expose themselves to legal challenges. This article therefore examines the implications of different types of tax administration nudges and proposes a set of principles to ensure that their use remains consistent with established legal norms and taxpayer rights.

One of the reasons for the popularity of nudges in a tax administration context is that nudges can be a much more cost-effective way to foster increased compliance, particularly when compared to the costs of taking enforcement action against non-compliant taxpayers.¹¹ Nudges ‘generally cost little and have the potential to promote economic and other goals’.¹² Perhaps more significantly, some research also suggests nudges can be highly effective in encouraging voluntary tax compliance. For example, large-scale experiments in the United Kingdom involving prompts to taxpayers to pay their tax debts on time generated significant increases in tax collections among the nudged taxpayer group at negligible marginal cost.¹³ This contrasts with research findings into enforcement action which suggest the costs of enforcement actions such as audits and penalties could extend to ‘crowding out’ positive behaviours such as voluntary compliance.¹⁴

Technological change, including artificial intelligence-enabled personalisation, has accelerated the scale and targeting of nudges, which section 2 of this article addresses. Artificial intelligence (AI) systems¹⁵ can analyse taxpayer behaviour and generate nudges that are tailored to individual filing histories, income patterns, or prior compliance behaviours.¹⁶ However, this increased sophistication raises additional significant concerns – particularly about fairness and transparency.¹⁷ For instance, if AI models are trained on biased datasets, certain groups may be unfairly targeted by compliance nudges.¹⁸

¹⁰ World Bank, *Behavioural Insights for Tax Compliance: A Whole-House Approach to Improving Taxpayer and Tax Official Beliefs, Attitudes, and Behaviors* (Policy Note, July 2025).

¹¹ Thaler and Sunstein, above n 1; Antinyan and Asatryan, above n 3.

¹² Cass R Sunstein, ‘Nudging: A Very Short Guide’ (2014) 37(4) *Journal of Consumer Policy* 583, 583 (‘Nudging’).

¹³ Hallsworth et al, above n 3, 21-22.

¹⁴ Bruno S Frey, ‘A Constitution for Knaves Crowds Out Civic Virtues’ (1997) 107(443) *Economic Journal* 1043, 1044-1045.

¹⁵ Although this article considers nudges broadly, it distinguishes between concerns that apply to all nudges and additional concerns that arise where nudges are AI enabled, due to personalisation, opacity, and data intensive design.

¹⁶ Randy Carpenter and Daren Campbell, ‘Tax Transformation: Adopting AI to Drive Efficiencies’, *Ernst & Young Global* (22 July 2024) <https://www.ey.com/en_us/insights/tax-compliance/ai-and-the-transformation-of-tax-compliance> (accessed 26 May 2026).

¹⁷ See Emily Black, Hadi Elzayn, Alexandra Chouldechova, Jacob Goldin and Daniel E Ho, ‘Algorithmic Fairness and Vertical Equity: Income Fairness with IRS Tax Audit Models’ in *FACCT ’22: Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency* (Association for Computing Machinery, 2022) 1479.

¹⁸ See, for example, Jon Ungood-Thomas and Yusra Abdulahi, ‘Warnings AI Tools Used by Government on UK Public Are “Racist and Biased”’, *The Guardian* (25 August 2024) <<https://www.theguardian.com/technology/article/2024/aug/25/register-aims-to-quash-fears-over-racist-and-biased-ai-tools-used-on-uk-public>> (accessed 26 May 2026); Antonio Seco, ‘Artificial Intelligence,

This article is divided into a number of parts. Following from this introduction, section 2 provides a brief background to nudge theory and highlights the paucity of literature examining the potential implications of nudging on taxpayer rights and tax authority powers and responsibilities respectively. Specifically, the analysis in section 2 affirms the need for greater specificity and closer examination of particular legal issues arising from particular types of uses of nudges by tax authorities. As such, section 3 examines potential issues arising from using nudges to provide information or advice to taxpayers. Section 4 expands on the analysis by examining potential implications of using nudges to detect possible non-compliance or taxpayer error. Section 5 examines implications where nudges are used to deter tax non-compliance or for tax debt collection.

In section 6, the results of the analysis are distilled into a series of general principles and suggestions for mitigating the various risks posed by indiscriminate use of nudges in various tax administration contexts. The ultimate aim is to identify a series of considerations for ensuring that the benefits of nudges can be harnessed for optimal effect and mutual benefit of policymakers, tax officials, and taxpayers alike. The article concludes with brief remarks in section 7 emphasising the need for further research and regulatory attention on the appropriate use of tax administration nudges.

While this article draws on examples from multiple jurisdictions, including Australia and the United Kingdom, statements concerning legal effect, binding force, and taxpayer rights are jurisdiction specific unless expressly stated otherwise.

2. NUDGES IN TAX ADMINISTRATION

As cited in the preceding introduction, the widely accepted definition of nudges is that of Sunstein and Thaler (Nobel Prize laureate in Economic Sciences in 2017), who note the core requirement for nudges which distinguishes them from many other interventions – their ability to alter behaviour in a predictable manner without forbidding or compelling the individual to do so.¹⁹ Further, Sunstein has also observed that nudges must, by definition, preserve freedom of choice – they must be easy and cheap for those nudged to avoid.²⁰ In tax administration contexts, nudge strategies also often go hand-in-glove with pre-filling of data in tax returns by tax authorities and taxpayer prompting when they deviate from pre-filled information. In this respect, although pre-filling is not a ‘pure’ nudging strategy, there are examples in the literature of ‘tax nudges’ being used as an umbrella term to capture more conventional and

Data and Biases: Notes for Tax Administrations’, *Inter-American Center of Tax Administrations* (17 July 2023) <<https://www.ciat.org/ciatblog-artificial-intelligence-data-and-biases-notes-for-tax-administrations/?lang=en>> (accessed 26 May 2026); Jim Tankersley, ‘Black Americans Are Much More Likely to Face Tax Audits, Study Finds’, *The New York Times* (31 January 2023) <<https://www.nytimes.com/2023/01/31/us/politics/black-americans-irs-tax-audits.html>> (accessed 26 May 2026).

¹⁹ Thaler and Sunstein, above n 1, 6. This and other early work and rationale for nudges and nudge theory has its origins in the dedicated efforts of the United Kingdom Behavioural Insights Team (BIT), sometimes referred to as the ‘nudge unit’. For further information about BIT, see <<https://www.bi.team/>>; The work of this team has also influenced the establishment of the World Bank, ‘Mind, Behavior and Development Unit’. For further information about this Unit, see <<https://www.worldbank.org/en/programs/embed>>.

²⁰ See also Sunstein, ‘Nudging’, above n 12, 584.

unvarnished nudging strategies as well as related tax compliance strategies such as pre-filling.²¹

While the conceptual foundations of nudging are well established, more recent scholarship and policy guidance reflect the increasing institutionalisation of nudges within contemporary tax administration and digital governance frameworks.²² Monageng, Evans and Steyn discern from the literature three different types of tax administration nudges – ‘reciprocity’ nudges, ‘social norm’ nudges and ‘deterrence’ nudges – describing each respective category as follows:

‘Reciprocity’ nudges refer to nudges using beliefs about the use of resources by the government ... Social norm nudges refer to nudge messages about tax compliance behaviour of others and deterrence nudges refer to nudge messages which emphasize traditional determinants of compliance, such as audit probabilities and penalty rates.²³

In a recent systematic literature review, Antinyan and Asatryan identify four categories – reminder nudges, deterrence nudges, tax morale nudges and ‘other nudges’ (which ostensibly captures nudges providing other information to taxpayers).²⁴

Large-scale quantitative synthesis of the tax compliance nudging literature further underscores both the effectiveness and the limitations of these interventions. In a recent meta-analysis of 71 randomised controlled trials conducted across approximately 40 countries, it was estimated that simple reminder nudges increase compliance by approximately 2.7 percentage points, with non-deterrence nudges increasing compliance by a further 1.4 percentage points and deterrence nudges by approximately 3.2 percentage points.²⁵ While these effects are statistically significant, the researchers emphasise that they are modest in magnitude, heterogeneous across taxpayer groups and jurisdictions, and predominantly short term in nature.²⁶ Importantly, the meta-analysis also identifies evidence of publication bias and *p*-hacking (the selective reporting of statistically significant results), raising caution about over-interpreting reported effect sizes.²⁷ From an institutional perspective, these findings suggest that while nudges may contribute to compliance, their effects are neither uniform nor self-sustaining, and should not be treated as a substitute for careful legal and administrative design.

For clarity, this article distinguishes between two broad modes of tax administration nudging. First, ‘traditional’ nudges refer to standard behavioural communications delivered through letters, emails, portals, or generic prompts that are not driven by

²¹ For further discussion, see Boer and Gribnau, above n 9, 230-231. Except where the context otherwise requires, this article applies a definition of nudging broadly capable of capturing all closely allied tax administration policies including pre-filling of tax returns.

²² Antinyan and Asatryan, above n 3; Stefan Ambec, Henrik Andersson, Stéphane Cezera, Aysegul Kanay, Benjamin Ouyard, Luca Panzone and Sebastian Simon, ‘Taxing and Nudging to Reduce Carbon Emissions’ (Toulouse School of Economics Working Paper TSE-1690, January 2026); Matej Lorko, Tomáš Miklánek and Maroš Servátka, ‘Why Do Some Nudges Work and Others Not?’ (2025) 235 *Journal of Economic Behavior and Organization* 107074.

²³ Nompumelelo Monageng, Chris Evans and Theuns Steyn, ‘The Influence of Reciprocity Nudges on Tax Compliance in South Africa: Evidence from an Experimental Study’ (2022) 20(1) *eJournal of Tax Research* 22, 23 (reference omitted).

²⁴ Antinyan and Asatryan, above n 3.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ *Ibid.*

machine learning. Secondly, ‘AI-enabled’ nudges refer to nudges that are generated, targeted, or adapted through AI or advanced analytics, including systems that personalise content based on taxpayer attributes or behavioural profiles. While many legal and rights-based concerns arise in both settings, AI-enabled nudges also raise additional concerns due to scale, opacity, and reliance on personal data. The analysis below therefore identifies when an issue applies across both modes and when it is specific to AI-enabled nudging.

Insofar as assessing the effectiveness and impact of nudges generally is concerned, the literature reveals many factors. For instance, research suggests that whether or not the nudge is delivered electronically, in writing, or in person can influence its effectiveness, particularly in terms of fostering increased tax compliance.²⁸ A second factor is the target taxpayer group. Research has revealed variations in the effects of nudges on taxpayers predisposed to non-compliance compared to taxpayers more naturally predisposed to comply.²⁹ There is also evidence indicating nudges may be more effective in higher-income countries or in countries with a more communal sense of social accountability – as distinct from countries with a more individualistic socio-cultural ethos.³⁰ There are also various temporal dimensions, including the timing of individual nudges and the intervals between repeated nudges.³¹ The type of tax involved

²⁸ Antinyan and Asatryan, for example, found that based on studies to date, ‘nudges communicated by in-person visits to taxpayers relative to nudges delivered through physical letters have 2.6-percentage-point larger effects on tax compliance’: *ibid* 1053. See also Monica Mogollon, Daniel Ortega and Carlos Scartascini, ‘Who’s Calling? The Effect of Phone Calls and Personal Interaction on Tax Compliance’ (2021) 28(6) *International Tax and Public Finance* 1302; Daniel Ortega and Carlos Scartascini, ‘Don’t Blame the Messenger: The Delivery Method of a Message Matters’ (2020) 170 *Journal of Economic Behavior and Organization* 286; Jorge Gallego and Federico Ortega, ‘Can Facebook Ads and Email Messages Increase Fiscal Capacity? Experimental Evidence from Venezuela’ (2022) 70(4) *Economic Development and Cultural Change* 1531.

²⁹ An early Australian study by Wenzel, examining the effect of various Australian Taxation Office (ATO) reminder letters on compliance found that ‘compliance history was the single most important factor in predicting compliance’. See Michael Wenzel, ‘A Letter from the Tax Office: Compliance Effects of Informational and Interpersonal Justice’ (2006) 19(3) *Social Justice Research* 345, 358. For good examples of studies centred on ‘delinquent’ taxpayers, see Taylor Cranor, Jacob Goldin, Tatiana Homonoff and Lindsay Moore, ‘Communicating Tax Penalties to Delinquent Taxpayers: Evidence from a Field Experiment’ (2020) 73(2) *National Tax Journal* 331; Stacy Orlett, Rizwan Javaid, Vicki Koranda, Maryamm Muzikir and Alex Turk, ‘Impact of Filing Reminder Outreach on Voluntary Filing Compliance for Taxpayers with a Prior Filing Delinquency’ in Alan Plumley (ed), *Papers Given at the 7th Annual Joint Research Conference on Tax Administration* (2017 IRS Research Bulletin) 83 <<https://www.irs.gov/pub/irs-soi/17resconorlett.pdf>>.

³⁰ It should be noted, however, that the majority of studies into nudging are from developed countries, hence it is difficult to confirm jurisdictional differences in the effects of nudges in various cultural and social settings, particularly in less-developed countries. See, for example, the systematic literature review findings of Hummel and Maedche (in which the authors examined 100 papers published to 2017); the authors found ‘40% of the studies are conducted in the United States (40). If Europe is taken together, 41 studies were conducted here, with UK at the top (7 studies)’ with minimal numbers of studies from South America, Africa or Asia: Dennis Hummel and Alexander Maedche, ‘How Effective is Nudging? A Quantitative Review on the Effect Sizes and Limits of Empirical Nudging Studies’ (2019) 80 *Journal of Behavioral and Experimental Economics* 47, 52.

³¹ For a good example of a study examining timing, see Monageng, Evans and Steyn, above n 23. See also Kateřina Chadimová, ‘Timing, Deterrence and Simplicity in Repetitive Nudges’ (working paper, 17 May 2023), available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4455664>; Johannes Buckenmaier, Eugen Dimant, Ann-Christin Posten and Ulrich Schmidt, ‘Efficient Institutions and Effective Deterrence: On Timing and Uncertainty of Formal Sanctions’ (2021) 62(2) *Journal of Risk and Uncertainty* 177; Christian Gillitzer and Mathias Sinning, ‘Nudging Businesses to Pay their Taxes: Does Timing Matter?’ (2020) 169 *Journal of Economic Behavior and Organization* 284.

and the type of taxpayer targeted can also affect the results. For instance, indirect tax nudges have been found to have different effects to income tax nudges.³² In a similar vein, individual or low-income taxpayers with tax debts may respond to nudges differently than business taxpayers or higher-income taxpayers.³³ Some studies also suggest that while nudges can increase compliance in the short term, they may not necessarily foster a long-term culture of compliance. This is indicated in studies where taxpayers who are repeatedly exposed to nudges develop a passive approach to tax obligations, relying on external prompts rather than actively engaging with their tax responsibilities.³⁴ Some studies also suggest that while nudges can increase compliance in the short term, they may not necessarily foster a long-term culture of compliance.³⁵ Evidence from tax compliance research indicates that the effects of nudges may diminish over time and are not always sustained.³⁶ The broader behavioural literature has described the declining effectiveness of repeated exposure to behavioural prompts as ‘nudge fatigue’.³⁷

Pertinently, however, the academic and policymaker debate and exploration to date tends to focus almost exclusively on effectiveness in terms of increasing taxpayer compliance as measured by overall increases in revenue collection. More recent economic scholarship has also questioned whether behavioural effectiveness necessarily translates into welfare improvement.³⁸ Allcott and co-authors argue that a nudge may shift behaviour in the intended direction while nevertheless reducing overall welfare, depending on how it affects the distribution and variance of decision-making distortions across individuals.³⁹ Their analysis emphasises that average treatment effects alone are an incomplete basis for evaluating nudges, as nudges may disproportionately

³² For an excellent example of an Australian study examining the implications of various types of nudges on GST compliance, see Department of the Prime Minister and Cabinet (Australia), *Improved Compliance with the Deferred GST Scheme* (June 2018) <https://www.pmc.gov.au/sites/default/files/2025-06/report-improved-compliance-deferred-gst_0.pdf>. See also Dina Pomeranz, ‘No Taxation Without Information: Deterrence and Self-Enforcement in the Value Added Tax’ (2015) 105(8) *American Economic Review* 2539.

³³ This is a factor that is yet to be fully explored but has been raised in the context of literature examining susceptibility to nudges – ‘nudgeability’. For an excellent discussion of ‘nudgeability’ see Denise de Ridder, Floor Kroese and Laurens van Gestel, ‘Nudgeability: Mapping Conditions of Susceptibility to Nudge Influence’ (2022) 17(2) *Perspectives on Psychological Science* 346. Insofar as economic privilege and susceptibility to nudging is concerned, the authors note this as an area ripe for further research, observing (at 353) that ‘there is only a very limited body of evidence that indicates whether and in what way being underprivileged is associated with being influenceable to nudges’.

³⁴ See for example, Cass R Sunstein, ‘Misconceptions About Nudges’ (2018) 2(1) *Journal of Behavioral Economics for Policy* 61 (‘Misconceptions About Nudges’); Neil Levy, ‘Nudge, Nudge, Wink, Wink: Nudging is Giving Reasons’ (2019) 6(10) *Ergo: An Open Access Journal of Philosophy* 281; James Alm, Kim M Bloomquist and Michael McKee, ‘When You Know Your Neighbour Pays Taxes: Information, Peer Effects and Tax Compliance’ (2017) 38(4) *Fiscal Studies* 587 (‘When You Know Your Neighbour Pays Taxes’).

³⁵ Sunstein, ‘Misconceptions About Nudges’, above n 34; Levy, above n 34; Alm et al, ‘When You Know Your Neighbour Pays Taxes’, above n 34.

³⁶ Antinyan and Asatryan, above n 3.

³⁷ The concept of ‘nudge fatigue’ originated in adjacent disciplines and has since been applied across a range of behavioural intervention contexts. In digital health, the concept has more recently been formally conceptualised as ‘the cumulative cognitive, emotional, and behavioural burden arising from sustained exposure to multiple forms of digital behavioural prompts’: Hatice Erdogan, Doga Ulcay and Fusun Afsar, ‘Beyond Alarm Fatigue: Nurses’ Experiences of Behavioral Nudge Fatigue in Digital Clinical Environments’ (2026) 25 *BMC Nursing* article 286.

³⁸ For example, Allcott et al, above n 3.

³⁹ Ibid.

affect individuals who are not behaviourally biased, while failing to adequately target those who are.⁴⁰ From an institutional perspective, this insight reinforces the need for caution in treating behavioural effectiveness as a sufficient justification for widespread adoption of nudging strategies in tax administration, particularly where interventions are deployed uniformly at scale.

More recent experimental evidence suggests that the effectiveness of tax compliance nudges is highly contingent on their interaction with underlying economic incentives. In a multi-period laboratory study examining income reporting behaviour, Lorko, Miklánek and Servátka find that while an initial nudge may generate short-term increases in compliance irrespective of incentive structures, repeated nudging produces sustained compliance effects only where the nudge is aligned with the taxpayer's underlying financial incentives.⁴¹ Where nudges operate in tension with those incentives, their effects dissipate quickly and do not generate durable behavioural change. These findings cast doubt on assumptions that nudges are inherently low risk or uniformly effective compliance tools, and underscore the importance of careful institutional design when nudges are deployed repeatedly in tax administration settings.

Related experimental evidence from adjacent policy domains further reinforces this point. In a study examining the combined use of behavioural nudges and fiscal instruments to reduce the carbon footprint of food consumption, Ambec and co-authors show that a behavioural nudge in the form of traffic-light-style labelling had limited effect when deployed in isolation, with significant and sustained behavioural change occurring only when the nudge was combined with a sufficiently strong price signal through taxation.⁴² Importantly, the study also demonstrates that nudges may generate welfare losses for some individuals, particularly where behavioural responses are induced without corresponding alignment with underlying incentives. Although situated outside the tax compliance context, these findings reinforce concerns raised in the tax literature that nudges should not be assumed to be inherently effective, benign, or welfare enhancing, and that their institutional design and interaction with enforcement mechanisms warrant careful scrutiny.

These types of ostensibly positive revenue collection results have been a significant contributor to the increasingly widespread adoption of tax administration nudges. The genesis of this widespread adoption can, in part, also be sheeted back to the United Kingdom HM Revenue and Customs' pioneering approach to various behavioural nudging techniques. These include sending social norm messages such as informing taxpayers that most people in their area have already paid their tax debts. These techniques have been credited with leading to significant increases in timely tax payments in the United Kingdom.⁴³

Among the early adopters of nudges is the Australian Taxation Office (ATO). The ATO *Annual Report 2023-24* reveals the ATO in 2024 'sent approximately 3.02 million SMS nudges to taxpayers, to support on-time lodgment and payment'.⁴⁴ The ATO also points to a range of specific 'prompting' activities during the same period including pre-filling

⁴⁰ Ibid.

⁴¹ Lorko, Miklánek and Servátka, above n 22.

⁴² Ambec et al, above n 22.

⁴³ See Michael Hallsworth, 'The Use of Field Experiments to Increase Tax Compliance' (2014) 30(4) *Oxford Review of Economic Policy* 658.

⁴⁴ Australian Taxation Office, *Annual Report 2023-24* (2024) 18.

of over 111.3 million pieces of data, providing 636,000 real-time tax return prompts, sending nearly 365,000 pre-fill messages concerning crypto asset sales, sending 514,000 real time prompts to taxpayers to check business activity statement amounts, and sending nearly 18,000 prompts to sole traders where amounts reported differed from those in similar circumstances.⁴⁵

Unfortunately, there has been little in the way of published research directly considering the potential need for a legal framework to regulate the use of tax administration nudges, despite their increasing uptake tax authorities such as the ATO. A notable exception is a chapter by Boer and Gribnau in which the authors set out to ‘test the legal acceptability of the use of behavioural informed policies’ and make the argument that ‘the guarantees of a legal framework are vital for a sustainable use of tax nudges to enhance voluntary compliance’.⁴⁶ Insofar as the substance of such a legal framework is concerned, Sunstein and Reisch have proposed a series of principles they characterise as a ‘bill of rights for nudging’. However, this work only makes passing reference to nudging in tax contexts.⁴⁷

To some extent, the relative absence of focus on legal implications of nudging in tax administration contexts in the existing literature is unsurprising. The reality is that nudge theory is deeply rooted in the work of behavioural economists such as Sunstein and Thaler and economists continue to feature heavily in the extant literature. The focus of economists is more naturally on efficiency and cost-benefit calculations of the effects of nudges rather than legal considerations.

Notwithstanding, it is possible to extrapolate from the literature a range of potential consequences of various nudging strategies on the taxpayer rights/tax authority power equilibrium. In particular, questions have been raised concerning the effects of nudging on fairness, transparency and taxpayer autonomy.⁴⁸ Further, growing legal concerns surround the increasing role of artificial intelligence and data analytics in tax nudging – sometimes referred as ‘digital nudging’.⁴⁹ Digital nudges can personalise tax compliance prompts based on taxpayer history, spending patterns, and demographic factors.⁵⁰ This enables personalised nudges to enhance taxpayer compliance.⁵¹ While this enhances precision, it can also inadvertently perpetuate existing biases present in data used to train the AI, leading to unfair targeting or overlooking certain behaviours.⁵² This is particularly relevant in tax administration, where biased AI tools have already reportedly led to disproportionate scrutiny of specific taxpayer groups, such as gig

⁴⁵ Ibid.

⁴⁶ Boer and Gribnau, above n 9, 210.

⁴⁷ This bill of rights contains the following six principles: (1) Public officials must promote legitimate ends; (2) Nudges must respect individual rights; (3) Nudges must be consistent with people’s values and interests; (4) Nudges must not manipulate people; (5) In general, nudges should not take things from people, and give them to others, without their explicit consent; and (6) Nudges should be transparent rather than hidden. See Cass R Sunstein and Lucia A Reisch, *Trusting Nudges: Toward a Bill of Rights for Nudging* (Routledge, 2019) ch 9, 128-138.

⁴⁸ Paul Kuyper and Bert Gordijn, ‘Nudge in Perspective: A Systematic Literature Review on the Ethical Issues with Nudging’ (2023) 35(2) *Rationality and Society* 191.

⁴⁹ Digital nudging has been defined as ‘the use of user-interface design elements to guide people’s behavior in digital choice environments’: Markus Weinmann, Christoph Schneider and Jan vom Brocke, ‘Digital Nudging’ (2016) 58(6) *Business Information Systems Engineering* 433, 433.

⁵⁰ OECD, *Governing with Artificial Intelligence*, above n 5, 174-175.

⁵¹ Antinyan and Asatryan, above n 3.

⁵² OECD, *Governing with Artificial Intelligence*, above n 5, 174-175.

workers or low-income earners, leading to perceived unfairness in enforcement.⁵³ Moreover, the deployment of AI systems in tax fraud detection raises significant concerns regarding algorithmic fairness and potential bias. Studies indicate that machine learning models may inadvertently perpetuate existing biases in historical data, leading to unfair outcomes.⁵⁴

Furthermore, the expansion of real-time tax monitoring systems raises questions about privacy. Specifically, AI-powered devices and services continuously collect personal information, raising concerns about intrusive data gathering and unauthorised access by third parties. The risk of unacceptable loss of privacy is further exacerbated by the ability of AI to process and combine vast amounts of data, potentially leading to a surveillance society where individual activities are constantly monitored and analysed without adequate safeguards or transparency.

Beyond digital nudges, it has also been recognised that nudges could reduce active taxpayer engagement with the tax system and their tax obligations. As behavioural interventions become more pervasive, taxpayers may become overly reliant on external prompts rather than actively understanding and managing their tax affairs. This raises long-term concerns about tax morale, as excessive reliance on nudging may erode the sense of personal responsibility and voluntary compliance that underpins a well-functioning tax system.⁵⁵ Finally, there has also been some debate in the literature challenging the intuitive appeal and acceptance of the proposition noted in the preceding introduction – that nudges are a relatively low-cost intervention.⁵⁶ As Antinyan and Asatryan point out, there have been several studies challenging ‘the popular belief that the sending of nudges is essentially costless’.⁵⁷

These types of findings suggest the need for a more nuanced approach to assessing whether any potential adverse consequences for taxpayer rights are justified, even from a pure cost/benefit analysis perspective. However, many unexplored legal issues also remain. Identifying these simply involves a little lateral thinking, informed by an understanding of existing taxpayer rights frameworks and tax authority responsibilities and powers. The balance of this article is dedicated to this task. The discussion is organised according to the various issues raised by information-provision nudges, non-compliance detection nudges, and debt collection nudges respectively. These three categories deliberately cut across the traditional categorisations of nudges in the existing literature outlined earlier. This is because traditional categorisations have largely been developed to assess and quantify the effectiveness of nudges for tax compliance and tax collection purposes. As such, they are not ideal for highlighting distinct potential nudge-related legal issues affecting the taxpayer rights/tax authority power equilibrium that may arise in different nudging contexts.

⁵³ For discussion see the sources cited at n 18 above.

⁵⁴ Kehinde Olagoke Ariyibi, Oluwashola Fausath Bello, Tolulope Foyekemi Ekundayo, Oladiipo Ishola Oladepo, Ifeoluwa Uchechukwu Wada and Ebenezer O Makinde, ‘Leveraging Artificial Intelligence for Enhanced Tax Fraud Detection in Modern Fiscal Systems’ (2023) 21(2) *GSC Advanced Research and Reviews* 129.

⁵⁵ Andreas T Schmidt and Bart Engelen, ‘The Ethics of Nudging: An Overview’ (2020) 15(4) *Philosophy Compass* e12658.

⁵⁶ For example, OECD, *Governing with Artificial Intelligence*, above n 5; Allcott et al, above n 3.

⁵⁷ Antinyan and Asatryan, above n 3, 1035.

3. INFORMATION-PROVISION NUDGES

The discussion in this section draws primarily on Australian law as an illustrative case study, while recognising that analogous principles operate, with variation, in other common law jurisdictions.

The transmission of tax authority information and opinion via nudges raises a number of interesting potential issues affecting the trade-off between tax authority power and taxpayer rights. To fully appreciate these potential issues, it is necessary to start with an understanding of the legal status of different types of tax authority interpretations of tax laws. In the United States of America and the United Kingdom, tax authorities are not bound by every utterance or communication between tax officials and taxpayers, except where statutory or administrative frameworks expressly provide otherwise.⁵⁸ Taking Australia as an example, there are specific provisions detailing when the Commissioner of Taxation can be bound by particular interpretations of the law.⁵⁹ The statutory provisions are contained in Divisions 357 to 361 of Schedule 1 of the *Taxation Administration Act 1953* (Cth) (TAA). In short, the relevant provisions allow the Commissioner to give binding Public Rulings, binding written Private Rulings, and binding Oral Rulings.⁶⁰ Law Administration Practice Statement PS LA 2008/3 explains the legal consequences of formal Rulings:

A ruling confers the highest level of protection so that a taxpayer is not liable to pay any more tax or excise duty (or repay any credit, grant or benefit received) than is contemplated in the ruling if the ruling applies to them, and they rely on it, but it is later found to be incorrect. In other words, the Commissioner is legislatively prevented from collecting the tax that would otherwise be payable under the law.⁶¹

The Commissioner can also be bound by other forms of advice provided to taxpayers in some circumstances. PS LA 2008/3 also details these. Consideration extends to matters such as information on technical matters provided by ATO officials as part of ‘informal

⁵⁸ Internal Revenue Service (US), ‘Understanding IRS Guidance – A Brief Primer’ (last updated 28 February 2026) <<https://www.irs.gov/newsroom/understanding-irs-guidance-a-brief-primer>>; National Taxpayer Advocate, ‘Protecting the Rights of Taxpayers Who Rely on IRS “Frequently Asked Questions” (FAQs)’ (7 July 2020, last updated 8 February 2024) <<https://www.taxpayeradvocate.irs.gov/news/nta-blog/ntablog-protecting-the-rights-of-taxpayers-who-rely-on-irs-frequently-asked-questions-faqs/2020/07/>> (accessed 26 May 2026); HM Revenue and Customs, ‘How HMRC Advice and Information Can Help You’ (Guidance, last updated 30 June 2023) <<https://www.gov.uk/guidance/when-you-can-rely-on-information-or-advice-provided-by-hm-revenue-and-customs>> (accessed 26 May 2026); Richard Giangrande, Gideon Sanitt and Pippa Goodfellow, ‘Relying on HMRC’s Guidance - Is It Safe to Do So?’, *Lexology* (27 January 2020) <<https://www.lexology.com/library/detail.aspx?g=5aeac669-da9a-4274-b1f7-fab8831d7d90>>.

⁵⁹ The current system following the enactment of the *Tax Laws Amendment (Improvements to Self Assessment) Act (No 2) 2005* (Cth) is explained by the Commissioner in two Rulings: Australian Taxation Office, ‘Public Rulings’, Taxation Ruling TR 2006/10 (4 October 2006); Australian Taxation Office, ‘Private Rulings’, Taxation Ruling TR 2006/11 (4 October 2006). Both of these Rulings provide that in order to be binding on the Commissioner, opinions must be expressed as a Ruling.

⁶⁰ Private Rulings are dealt with in Division 359, Schedule 1 of the *Taxation Administration Act 1953* (Cth) (‘TAA’); Oral Rulings are dealt with in Division 360, Schedule 1 of the TAA, and Public Rulings are provided for in ss 358-5 and 358-10 of Schedule 1 of the TAA.

⁶¹ See Australian Taxation Office, ‘Provision of Advice and Guidance by the ATO’, Law Administration Practice Statement PS LA 2008/3 (28 February 2008) [16] (as amended to 7 May 2020) (‘PS LA 2008/3’).

discussions’.⁶² Although such communications are not considered binding on the Commissioner, PS LA 2008/3 does specify that ‘[i]n undertaking these discussions, the tax officer must ensure that the taxpayer is not misled, and must clearly explain that any comments made will not be binding on the Commissioner’.⁶³ This is understandable and relatively straightforward.

However, neither the statutory provisions, nor PS LA 2008/3 make any mention of information conveyed via a nudge or prompt. Nor does the ATO on their website page outlining the degree of reliance available with respect to various types of ATO advice and information.⁶⁴ In Australia, there is a live question, therefore concerning to what extent information supplied in a nudge, or the interpretations of the law underpinning a nudge, are binding on the Commissioner and legally able to be relied upon by taxpayers. What happens in the event that a representation made in a nudge is found to be incorrect or misleading? Should nudges be accompanied with a warning that acting in reliance on a nudge will not be binding on the Commissioner as required for ‘informal discussions’?

There may be additional complexities where a nudge refers or links to official published guidelines of the tax authority concerning the interpretation and application of a particular legal principle. In such cases, should a nudge be afforded the same legal status as the official published guideline or Ruling expressing the Commissioner’s formal legal opinion linked or referred to in the nudge? PS LA 2008/3 gives some hint as to how such matters might be dealt with. It notes that statements made in media releases which refer to other ATO publications such as public rulings, draft public rulings or law administration practice statements may be relied upon by the taxpayer:⁶⁵ ‘If the statement in the other publication is later found to be incorrect or misleading and the taxpayer makes a mistake, they will receive the level of protection that is applicable to the other publication’.⁶⁶

Alternatively, should nudges be treated in the same way as ‘ATO Guidance’? PS LA 2008/3 specifies that ‘ATO guidance is provided to help taxpayers understand their obligations and entitlements under the laws administered by the Commissioner. Guidance is not binding on the Commissioner’.⁶⁷ The potential problem with trying to shoehorn nudges into this category, however, is that nudges are unique in being exclusively proactive – initiated by the tax authority and without any accompanying request for guidance from the taxpayer. Further, increasingly, through the use of technology, such interactions are not initiated as a result of any conscious specific consideration by any particular human tax official. Do these characteristics alter the reliability of information within or underpinning a nudge?

Without such issues being formally considered and addressed, there is a risk that nudges in some situations may unintentionally fetter the Commissioner’s discretion to fulfil their statutory powers or duties. Alternatively, they may mislead taxpayers into a false comfort or belief that they possess rights *vis-à-vis* the Commissioner in acting

⁶² Ibid [183]–[189].

⁶³ Ibid [187].

⁶⁴ See Australian Taxation Office, ‘How Our Advice and Guidance Protects You’ (last updated 1 August 2025) <<https://www.ato.gov.au/about-ato/ato-advice-and-guidance/how-our-advice-and-guidance-protects-you>> (accessed 28 May 2026).

⁶⁵ Australian Taxation Office, PS LA 2008/3, above n 61.

⁶⁶ Ibid [222] (footnote omitted).

⁶⁷ Ibid [206].

accordance with such nudges that is unfounded. In Australia, such considerations potentially strike at the heart of the existing taxpayer rights framework where attempts by taxpayers to use equitable doctrines such as the doctrine of estoppel and allied administrative law doctrine of legitimate expectations to hold the Commissioner to account have repeatedly been summarily judicially rejected.⁶⁸ In equitable estoppel cases, this rejection is typically a manifestation of the ‘non-fetter’ principle. This principle provides ‘that an estoppel may not be raised to prevent the performance of a statutory duty or to hinder the exercise of a statutory discretion’.⁶⁹

In the tax context, the non-fetter principle is understandable. The concern is that holding the ATO to a representation communicated via a nudge would be tantamount to binding the legislature to the decision of an unelected public servant. This would be a particularly strong argument in any case attempting to hold the Commissioner to a nudge that would result in a taxpayer paying an amount of tax less than intended by the legislature on a correct application of the tax law. This may contradict the Commissioner’s duty to collect the correct amount of tax, ‘not a penny more, not a penny less’.⁷⁰ An argument might also be made that holding the Commissioner to information conveyed via an erroneous nudge might have a chilling effect on the willingness of tax officials to provide information or assistance to taxpayers – which would obviously be undesirable.

A further interesting potential wrinkle is the possibility that the increasing use of nudges to prompt taxpayers that they may have made a mistake may be construed as a willingness or intent of the tax authority to assume a general duty to warn taxpayers of potential harm. Historically, legal arguments that tax authorities have assumed such a duty have received little judicial sympathy either in Australia or abroad.⁷¹ For instance, in Australia, in *Farah Custodians Pty Ltd v Commissioner of Taxation (No 2)*⁷² the Federal Court concluded that:

⁶⁸ For example, in *Federal Commissioner of Taxation v Wade* (1951) 84 CLR 105, Kitto J concludes: ‘No conduct on the part of the Commissioner could operate as an estoppel against the operation of the Act’ (at 117, citations omitted). See also John Bevacqua, ‘The Plaintiff-Proof Barrier: The Justiciability of Activities of the Commissioner of Taxation in Tortious and Equitable Estoppel Taxpayer Claims’ (2008) 1 *Journal of the Australasian Law Teachers Association* 365. For an excellent discussion of the doctrine of legitimate expectations, see Matthew Groves, ‘Substantive Legitimate Expectations in Australian Administrative Law’ (2008) 32(2) *Melbourne University Law Review* 470. See also Mark Leibler, ‘Tax and the Rule of Law’ (2023) 46(2) *Melbourne University Law Review* 547.

⁶⁹ Margaret Allars, ‘Tort and Equity Claims Against the State’ in PD Finn (ed), *Essays on Law and Government, Vol 2: The Citizen and the State in the Courts* (Law Book Co, 1996) 49, 86 (footnote omitted).

⁷⁰ *Lighthouse Philatelics Pty Ltd v Federal Commissioner of Taxation* (1991) 32 FCR 148, 155.

⁷¹ For instance, in Canada in *Easton v Canada Revenue Agency*, 2017 FC 113, the Canadian Federal Court held Canada Revenue Agency (CRA) officials are under no duty to detect obvious mistakes taxpayers have made in their tax returns. This is consistent with earlier Canadian authority. For instance, in *Canada v Scheuer*, 2016 FCA 7, the taxpayers claimed the CRA was negligent in failing to warn them of risks associated with their involvement in a tax shelter donation program ultimately found to be a sham. The Canadian Federal Court of Appeal rejected the taxpayers’ argument, holding (at [43], quoting *Cooper v Hobart*, 2001 SCC 79, [55]) that imposing a duty of care in this case would ‘effectively create an insurance scheme for investors at great cost to the taxpaying public’. See also *Herrington v Canada (National Revenue)*, 2016 FC 953, in which the Canadian Federal Court determined that CRA officials are not obliged to inform taxpayers of income statement documentation missing from income tax returns or to warn taxpayers prior to levying penalties.

⁷² *Farah Custodians Pty Ltd v Commissioner of Taxation (No 2)* [2019] FCA 1076 (‘*Farah Custodians*’).

[i]t may perhaps be accepted, as a general proposition, that it is unlikely to be the case that, when tax officers are undertaking investigations into the tax liabilities of a particular taxpayer, they owe a general duty to all other taxpayers, or other third parties in respect of the conduct of the investigation.⁷³

In future, could tax authority nudges result in attempts to impose liability on tax officials for failures to warn hold greater prospects of success, thus unintentionally shifting the existing tax authority power/taxpayer rights equilibrium?

A related risk pertains to the potential risk of the wholesale unquestioning adoption of nudges on the premise of seeking to assist taxpayers and/or acting in the best interests of taxpayers.⁷⁴ From a legal perspective, there is a question of whether and to what extent tax authorities may be seen to be acting beyond their powers if they were to take on such responsibilities and the associated unintended legal exposures to the revenue that might result from so doing. For example, in taxpayer claims against tax officials, courts in multiple jurisdictions have repeatedly affirmed that the duties of tax authorities and officials are owed exclusively to the Crown or the State. But compare *Farah Custodians*, in which the Federal Court refused to strike out a taxpayer negligence claim against the Commissioner on the basis that a duty of care to taxpayers was reasonably arguable.⁷⁵ As such, there is no room for the existence of any private law duties to individual taxpayers alongside these statutory duties.⁷⁶ Insofar as the preservation of this traditional immunity from private law suit enjoyed by tax authorities and officials is concerned, the wholesale adoption of nudges on the premise of seeking to assist taxpayers and acting in the best interests of taxpayers is legally controversial and risky.

Finally, the prospect of excessive acquiescence by taxpayers to the interpretation of the tax law by the tax authority as reflected in tax authority nudges raises other potentially negative broader tax implications. One such implication is the risk of ‘infantilisation’, where repeated exposure to nudges may erode individuals’ ability to make independent decisions.⁷⁷ Critics argue that an over-reliance on nudging strategies may reduce taxpayer engagement with the tax system, leading to passive compliance rather than fostering genuine tax morale.⁷⁸ This concern aligns with broader discussions in behavioural tax policy regarding whether nudges should be complemented with

⁷³ Ibid [92]. The case involved allegations of negligence against ATO auditors involved in audits of the taxpayer’s tax agent. During the audit the auditors were on notice of misuse or possible misuse of the taxpayer’s funds by the taxpayer’s tax agent but did not notify the taxpayer or take steps to stop the fraud.

⁷⁴ While proponents of nudges, such as Thaler and Sunstein, above n 1, argue that nudges enhance taxpayer welfare by reducing errors and facilitating compliance, critics question whether tax authorities can accurately determine what is in the best interest of individual taxpayers. See Mario J Rizzo and Douglas Glen Whitman, ‘The Knowledge Problem of New Paternalism’ [2009] (4) *Brigham Young University Law Review* 905.

⁷⁵ See, eg, *Farah Custodians*, above n 72, [140]–[145].

⁷⁶ For a comprehensive survey of Australian and Canadian cases on the orthodox position that tax authority duties are owed exclusively to the Crown, see John Bevacqua, ‘Unresolved Controversies in Suing for Negligence of Tax Officials: Canadian and Australasian Insights and a Primer for Policy Makers’ Consideration’ (2020) 68(2) *Canadian Tax Journal* 439. *Harris v Deputy Commissioner of Taxation* (2001) 47 ATR 406 is a recent example of the orthodox Australian position. Similarly, in Canada, it has been observed that: ‘[A]ny duty owed by [the CRA auditor] was to the Minister of National Revenue whose duty is owed in turn to Parliament and to all taxpayers generally. Therefore, there is no duty of care owed to an individual taxpayer under the *Income Tax Act*’. See *Canus v Canada Customs*, 2005 NSSC 283, [87].

⁷⁷ Kuyper and Gordijn, above n 48.

⁷⁸ Luc Bovens, ‘The Ethics of Nudge’ in Till Grüne-Yanoff and Sven Ove Hansson (eds), *Preference Change: Approaches from Philosophy, Economics and Psychology* (Springer, 2009) 207.

educational interventions to enhance taxpayer understanding of their obligations, rather than merely steering them towards compliance through subconscious cues.⁷⁹

A further related implication is potentially creating a tax environment in which tax authority interpretation of tax laws becomes the default. This risks potentially leaving unremedied any misinterpretations or legal or administrative errors by tax authorities. No tax authority is infallible. As such, a fair tax system is one in which reasonable interpretations of the law which do not necessarily accord with the prevailing view of the tax authority as reflected in nudges or otherwise are welcomed. Such interpretations play an important function in clarifying legislative intent and ensuring tax law evolves and keeps pace with new or unforeseen circumstances.

4. NON-COMPLIANCE DETECTION NUDGES

The use of nudges in tax non-compliance detection contexts raises a number of further fundamental issues potentially affecting the tax authority powers/taxpayer rights equilibrium. One such issue concerns transparency. In their ‘nudging bill of rights’ Sunstein and Reisch include a principle that nudges should not be hidden or covert.⁸⁰ This is a particular challenge in settings where nudges are used to detect and deter non-compliance. Across many tax systems, audit selection and non-compliance detection criteria have historically been cloaked in secrecy.⁸¹ The reason for this traditional secrecy is that ‘[t]he more that taxpayers are aware of the limits of [tax authority] knowledge, the more opportunity they have to underreport their income’.⁸² The concern is that transparency erodes efforts to detect and deter tax non-compliance. Secrecy is therefore considered necessary, for example in relation to algorithmic decision-making, ‘to protect the ... efficacy and ... “competitive advantage” of the algorithm’.⁸³

Despite the inherent logical appeal of this need for secrecy, undoubtedly, there are implications for the tax authority power/taxpayer rights equilibrium. This is because a lack of transparency in tax nudging may reduce trust in tax authorities, particularly if taxpayers perceive these interventions as manipulative or paternalistic.⁸⁴ This concern is echoed in the broader policy literature, where scholars advocate for the implementation of ‘deliberative’ nudging,⁸⁵ ensuring that taxpayers are informed about

⁷⁹ Erich Kirchler, *The Economic Psychology of Tax Behaviour* (Cambridge University Press, 2007); James Alm and Benno Torgler, ‘Culture Differences and Tax Morale in the United States and in Europe’ (2006) 27(2) *Journal of Economic Psychology* 224; Ralph Hertwig and Till Grüne-Yanoff, ‘Nudging and Boosting: Steering or Empowering Good Decisions’ (2017) 12(6) *Perspectives on Psychological Science* 973.

⁸⁰ Sunstein and Reisch, above n 47.

⁸¹ Alan H Plumley, *The Determinants of Individual Income Tax Compliance: Estimating the Impacts of Tax Policy, Enforcement, and IRS Responsiveness* (Internal Revenue Service Publication 1916, 1996) 18.

⁸² Ibid.

⁸³ Paul Hayes, Ibo van de Poel and Marc Steen, ‘Algorithms and Values in Justice and Security’ (2020) 35(3) *AI and Society* 533, 547. See also Brent Daniel Mittelstadt, Patrick Allo, Mariarosaria Taddeo, Sandra Wachter and Luciano Floridi, ‘The Ethics of Algorithms: Mapping the Debate’ (2016) 3(2) *Big Data and Society*, and the sources cited therein; and Rob Kitchin, ‘Thinking Critically About and Researching Algorithms’ (2017) 20(1) *Information, Communication and Society* 14.

⁸⁴ See for example, Valerie Braithwaite, *Defiance in Taxation and Governance: Resisting and Dismissing Authority in a Democracy* (Edward Elgar, 2009); Tom R Tyler, ‘Psychological Perspectives on Legitimacy and Legitimation’ (2006) 57 *Annual Review of Psychology* 375; Cass R Sunstein, ‘The Ethics of Nudging’ (2015) 32(2) *Yale Journal on Regulation* 413.

⁸⁵ Pelle Guldberg Hansen and Andreas Maaløe Jespersen, ‘Nudge and the Manipulation of Choice: A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy’ (2013) 4(1) *European Journal of Risk Regulation* 3.

the behavioural interventions being used and are given the opportunity to opt out if they choose.⁸⁶ In tax administration, this could involve greater public disclosure of nudging strategies and mechanisms for taxpayer feedback.

Insofar as transparency is concerned, the implications warrant particularly close consideration due to the acknowledged role transparency plays in fostering trust and confidence between tax authorities and taxpayers necessary to facilitate a climate of voluntary tax compliance. It has long been acknowledged that erosions in taxpayer trust and confidence can result in negative voluntary tax compliance behaviour.⁸⁷ This being the case, coupled with the commitment of modern tax authorities to being transparent,⁸⁸ raises legitimate cause to question the implications of using nudges to detect non-compliance.

On the one hand, it has been argued that the technology employed to facilitate the wide-scale rollout of nudges by tax authorities actually enhances transparency with some arguing that, compared to human actors, ‘computer algorithms are transparent, and their detailed function can be understood’.⁸⁹ However, there appears to be little tax authority appetite to extend the benefits of this transparency to taxpayers when it comes to their use of nudges to detect non-compliance.⁹⁰ In fact, in many jurisdictions, there is already legislation in place permitting tax authorities to maintain secrecy in their non-compliance detection activities, extending to the use of technologically facilitated nudges.⁹¹

Setting aside the significant transparency challenges, additional issues arise from the use of nudges in non-compliance detection and deterrence settings. For instance, in jurisdictions where self-assessment has been adopted, does the increasing capacity and willingness of tax authorities to make widespread use of nudges to detect possible non-

⁸⁶ Schmidt and Engelen, above n 55.

⁸⁷ See Kristina Murphy, ‘The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders’ (2004) 28(2) *Law and Human Behavior* 187; Jenny Job and Monika Reinhart, ‘Trusting the Tax Office: Does Putnam’s Thesis Relate to Tax?’ (2003) 38(3) *Australian Journal of Social Issues* 299; John T Scholz, ‘Trust, Taxes, and Compliance’ in Valerie Braithwaite and Margaret Levi (eds), *Trust and Governance* (Russell Sage Foundation, 1998) 135; Lars P Feld and Bruno S Frey, ‘Trust Breeds Trust: How Taxpayers Are Treated’ (2002) 3 *Economics of Governance* 87.

⁸⁸ For example, in the Australian context, the Australian Taxpayers’ Charter contains an express commitment ‘to being transparent and accountable in our interactions with you and the community’ which extends to giving taxpayers access to ‘information that helps us make decisions, where appropriate’. See Australian Taxation Office, ‘Our Charter’ (last updated 20 February 2024) <<https://www.ato.gov.au/about-ato/commitments-and-reporting/ato-charter/our-charter>> (‘Our Charter’).

⁸⁹ Cas Milner and Bjarne Berg, *Tax Analytics: Artificial Intelligence and Machine Learning – Level 5* (PricewaterhouseCoopers Advanced Tax Analytics and Innovation, [2017]) 6, <<https://www.pwc.com/us/en/tax-services/assets/artificial-intelligence-and-machine-learning-final1.pdf>>.

⁹⁰ Ibid.

⁹¹ For example, in the United Kingdom, despite a service standard committing government agencies to ‘[m]ake all new source code open and reusable, and publish it under appropriate licences’ (UK Government, ‘Service Manual: Service Standard 12 – Make New Source Code Open’ (8 May 2019, last updated 30 May 2022), <<https://www.gov.uk/service-manual/service-standard/point-12-make-new-source-code-open>>), algorithms used to ‘detect fraud’ remain secret (see UK Government, ‘When Code Should Be Open or Closed’ (Guidance, 27 September 2017), <<https://www.gov.uk/government/publications/open-source-guidance/when-code-should-be-open-or-closed>>). Similarly, in the United States, there is legislative backing for the IRS to maintain secrecy of ‘standards used or to be used for the selection of returns for examination, or data used or to be used for determining such standards [where] such disclosure will seriously impair assessment, collection, or enforcement under the internal revenue laws’ (*Internal Revenue Code*, 26 USC, section 6103(b)(2)(D)).

compliance indicate a subtle shift back toward an assumption of the burden of assessment by the tax authority? Using Australia as a case in point, section 161AA of the *Income Tax Assessment Act 1936* (Cth) (ITAA 1936) sets out the obligation of self-assessment taxpayers to specify and include certain information in their tax returns. Section 166 of the ITAA 1936 obliges the Commissioner of Taxation to assess a taxpayer's taxable income, tax payable and any tax offsets or refunds from the taxpayer's tax return and from any other information in the Commissioner's possession. As such, the onus is on the taxpayer to supply correct information, and the Commissioner is entitled to rely on and utilise the information supplied by the taxpayer to make an assessment.

In jurisdictions operating under self-assessment systems, proactive and widespread nudging risks blurring the legislative allocation of responsibility for accurate tax reporting. Specifically, a question arises as to whether proactive nudging by the Commissioner, particularly contemporaneous nudging when a taxpayer is preparing their tax return, indicates the Commissioner implicitly assuming some of the responsibility imposed on the taxpayer to prepare and lodge an accurate and complete tax return. If so, in the near future, could we see a taxpayer argue that they have a legally enforceable expectation that any error or omission will be detected and advised to the taxpayer to ensure the accurate and timely completion of their tax return?

These possibilities are not merely theoretical. This is because one of the traditional arguments tax authorities have used to displace any such assumption of responsibility of the obligations of the taxpayer is that the volume of transactions simply does not make it possible for tax authorities to assume these responsibilities.⁹² However, there is a live issue as to the sustainability of such arguments in settings where technology deployed by tax authorities and the volume and accuracy of data being mined by that technology is rapidly approaching the stage where the Commissioner will be able to ostensibly conduct a live audit of each taxpayer's compliance and provide real-time nudges or prompts in the case of any error or under-reporting.⁹³

In fact, there are signs that the Australian judiciary are already growing sceptical of the sustainability of such traditional arguments. For example, in Australia, in *Farah Custodians Pty Ltd v Commissioner of Taxation (No 2)*⁹⁴ the taxpayer argued that standards similar to those applied to private sector bankers should be applied to determine whether the tax officials involved had been negligent in not detecting and advising the taxpayer of fraudulent activity concerning the taxpayer's nominated bank account into which tax refunds were being paid by the ATO. In response, the Commissioner of Taxation submitted that:

it would be impractical, if not impossible, for the Commissioner to verify, monitor and check the bank account details nominated by all tax agents... That submission was supported by evidence concerning the size and scale of the Australian tax system.⁹⁵

⁹² See *Farah Custodians*, above n 72.

⁹³ See OECD, *Governing with Artificial Intelligence*, above n 5.

⁹⁴ *Farah Custodians*, above n 72.

⁹⁵ *Ibid* [74].

This argument was not deemed sufficiently strong to warrant the Federal Court striking out the taxpayer's negligence action, as had been submitted by the Commissioner, with the Court observing:

It is sufficient to say that its case, while novel, is at least arguable. Like a bank acting on an otherwise valid instruction to pay out funds, the Commissioner could not be expected to be under any duty to withhold a refund, or make further inquiries, unless he was in some way on notice that there was some irregularity in relation to the nominated account, or some other facts which might suggest fraud or dishonesty. It is, however, at least arguable that the Commissioner might owe a duty of care to a taxpayer in respect of the payment of refunds if he is on notice of such matters.⁹⁶

This leaves the door open for a similar argument to be posed in a situation where either an erroneous nudge is issued or where the tax authority could be argued to have had sufficient information and knowledge to issue a timely and accurate nudge to alert the taxpayer to potential harm or exposure to tax under-reporting penalties or interest but failed to do so.

At a minimum, we may be rapidly approaching a time where it will be necessary for the legislature to intervene to affirm or disclaim any shift in tax authority and taxpayer responsibility to get things right in a nudge-dominated tax administration ecosystem. There is certainly a precedent for statutory intervention to provide clarity on related matters. For example, legislation affirming the validity of automated notices of assessment has been seen as necessary to protect the revenue authority from unwarranted challenge in some jurisdictions.⁹⁷ Should there be legislation providing equivalent protection for taxpayers to dissuade them from mounting a legal argument centred on reliance on tax authority nudges or prompts (or an absence thereof) in preparing their tax returns?

Before moving to other potential unintended or under-explored consequences of using nudges for non-compliance detection, it is necessary to consider the implications of seeking to maintain secrecy concerning how nudges are used in tax non-compliance detection contexts.⁹⁸ In particular, the use of nudges in this opaque setting raises the risk of potentially undetected bias underpinning the technologies deployed to identify and prompt or nudge taxpayers perceived to be at risk of tax under-reporting. There are many examples of algorithms with built in biases, particularly in the context of criminal profiling.⁹⁹ There should at least be an attempt to incorporate some checks and balances to ensure that entrenched biases in algorithms used in tax non-compliance nudging are detected early or avoided altogether. To do otherwise risks adverse consequences of eroding trust and confidence in the tax authority or tax system with consequent discouragement of voluntary compliance.¹⁰⁰

⁹⁶ Ibid [88].

⁹⁷ See, for example, section 105 of the New Zealand *Tax Administration Act 1994*, which expressly confirms the validity of automated notices of assessment.

⁹⁸ See John Bevacqua, 'Unmasking the Robots – An Examination of the Tax Compliance Implications of Algorithmic Secrecy' (2021) 36(4) *Australian Tax Forum* 647 ('Unmasking the Robots').

⁹⁹ For a comprehensive discussion, see Sandra G Mayson, 'Bias In, Bias Out' (2019) 128(8) *Yale Law Journal* 2218.

¹⁰⁰ See n 87 above for sources confirming and discussing the link between trust and voluntary compliance.

Perhaps more concerningly, it may be the case that even with such checks and balances, the risk of bias in algorithms used to nudge taxpayers identified as being at high risk of non-compliance cannot be completely eliminated. This argument has been posed in the criminal justice context and efforts to eliminate racial bias, with one author noting:

[T]hese strategies are at best superficial and at worst counterproductive because the source of racial inequality in risk assessment lies neither in the input data, nor in a particular algorithm, nor in algorithmic methodology per se. The deep problem is the nature of prediction itself. All prediction looks to the past to make guesses about future events. ... [A]ny method of prediction will project the inequalities of the past into the future.¹⁰¹

Such problems may well be compounded in the nudge context, particularly where nudges are designed without sufficient attention to the possibility that individuals may feel compelled to comply, even where this would result in over-compliance.¹⁰²

The welfare implications of such behavioural pressure have been further explored in recent public finance literature. Allcott and co-authors demonstrate that nudges can reduce welfare where they increase the variance of choice distortions, even when average behavioural responses move in a direction consistent with regulatory objectives.¹⁰³ Applied to tax administration, this suggests that nudges signalling scrutiny or risk may disproportionately influence compliant or low-risk taxpayers, inducing excessive caution or over-reporting, while having limited impact on those engaged in deliberate non-compliance. From a governance perspective, this raises concerns about the fairness and proportionality of using behavioural prompts as part of non-compliance detection strategies, particularly where nudges operate alongside existing enforcement mechanisms and penalties.

These concerns are reinforced by recent experimental evidence showing that repeated nudging can alter taxpayer behaviour even in the absence of meaningful enforcement change. Studies demonstrate that frequent nudging aligned with high audit probability can induce persistent increases in income reporting, while frequent nudging in low audit probability settings yields no comparable long-term effect.¹⁰⁴ Importantly, this research suggests that taxpayers may initially respond to nudges even where compliance is not payoff maximising, but that such responses are fragile and short-lived.¹⁰⁵

Related concerns about behavioural pressure and welfare effects are also evident in experimental research examining nudges outside the tax setting. Recent studies have identified distinct categories of individuals responding to behavioural nudges, including so called ‘nudgeable’ individuals who experience welfare losses as a result of behavioural steering, and moral individuals who derive welfare gains from additional information.¹⁰⁶ Transposed to the tax administration context, this evidence reinforces the concern that repeated or prominent nudging may undermine taxpayer autonomy and

¹⁰¹ Mayson, above n 99, 2218.

¹⁰² See, for example, Henrik Andersson, Per Engström, Katarina Nordblom and Susanna Wanander, ‘Nudges and Threats: Soft Versus Hard Incentives for Tax Compliance’ (2023) 38(116) *Economic Policy* 771; Benoît Le Maux and Sarah Necker, ‘Honesty Nudges: Effect Varies with Content But Not with Timing’ (2023) 207 *Journal of Economic Behavior and Organization* 433.

¹⁰³ Allcott et al, above n 3.

¹⁰⁴ Lorko, Miklánek and Servátka, above n 22.

¹⁰⁵ Ibid.

¹⁰⁶ Ambec et al, above n 22.

fairness, especially where nudges are perceived as implicit signals of heightened scrutiny rather than neutral informational prompts.

These observations are consistent with earlier findings in the tax compliance literature. Research has demonstrated that behavioural interventions, if not carefully calibrated, can create a chilling effect in which taxpayers err on the side of excessive caution. For example, Alm, Bloomquist and McKee highlight how taxpayers who receive risk-based nudges indicating that their tax affairs may be subject to scrutiny often respond by over-reporting income or under-claiming deductions to mitigate perceived audit risks.¹⁰⁷ This aligns with broader behavioural insights literature suggesting that individuals may respond to perceived regulatory oversight with hyper-conformity in order to avoid potential negative consequences.¹⁰⁸

Additionally, empirical studies have indicated that compliance nudges can create unintended psychological pressures. A study found that when tax authorities issue reminders about compliance obligations in a way that implies heightened scrutiny, some taxpayers respond with excessive caution, increasing their reported taxable income beyond what is legally required.¹⁰⁹ Similarly, in a field experiment, Dwenger and co-authors found that individuals subjected to compliance-focused nudges displayed an aversion to under-reporting that led to tax overpayment.¹¹⁰ This raises significant policy considerations regarding the design of tax nudges. If tax administrations deploy nudges in ways that lead to over-reporting, there may be an argument for legal safeguards to ensure that behavioural interventions do not inadvertently erode taxpayer autonomy or fairness in the tax system. Such safeguards could include mandatory disclaimers accompanying compliance nudges, clarifying that they do not alter legal obligations, or independent oversight mechanisms to assess whether nudges result in systematic over-compliance. At this point, the distinction between behavioural guidance and regulatory compulsion becomes increasingly difficult to sustain.

Compliance-focused nudges, if not carefully constructed and deployed, may also attract the label of ‘budes’.¹¹¹ Whereas nudges subtly guide behaviour while preserving individual autonomy, budes involve stronger interventions that push individuals toward regulatory compliance.¹¹² This distinction raises broader questions about the extent to which tax nudges should incorporate elements of regulatory enforcement while maintaining a commitment to taxpayer autonomy and informed decision-making.

Where nudges operate in a manner that closely resembles enforcement, questions may arise as to whether a tax authority is acting strictly within its statutory mandate, depending on the nature and limits of that mandate. For example, in New Zealand,

¹⁰⁷ James Alm, Kim M Bloomquist and Michael McKee, ‘On the External Validity of Laboratory Tax Compliance Experiments’ (2015) 53(2) *Economic Inquiry* 1170.

¹⁰⁸ Cass R Sunstein, *Choosing Not to Choose: Understanding the Value of Choice* (Oxford University Press, 2015).

¹⁰⁹ Antinyan and Asatryan, above n 3.

¹¹⁰ Nadja Dwenger, Henrik Kleven, Imran Rasul and Johannes Rincke, ‘Extrinsic and Intrinsic Motivations for Tax Compliance: Evidence from a Field Experiment in Germany’ (2016) 8(3) *American Economic Journal: Economic Policy* 203.

¹¹¹ Adam Oliver (ed), *Behavioural Public Policy* (Cambridge University Press, 2013).

¹¹² Afonso and Mohr illustrate this distinction by implementing a budget simulation feature that actively discouraged excessive surpluses. See Whitney Afonso and Zachary Mohr, ‘More Than a Wink and a Nudge: Examining the Choice Architecture of Online Government Budget Simulations’ (2024) *Behavioural Public Policy* (advance).

section 6 of the *Tax Administration Act 1994* imposes an obligation on tax officials to ‘use their best endeavours to protect the integrity of the tax system’ including ‘public perception of that integrity’ and to administer the law ‘fairly, impartially, and according to law’. These obligations moderate and qualify the duty to ‘collect over time the highest net revenue that is practicable within the law’ contained in section 6A(2).¹¹³ Query whether, in the face of knowledge that nudges may result in some taxpayers over-reporting, a tax official could claim they are using their best endeavours to protect the integrity of the tax system or administering the law fairly, impartially and according to law. Given these types of considerations, there is merit in exploring legislative or administrative measures that ensure taxpayers are not unduly pressured into over-reporting. Without appropriate safeguards, reliance on nudges without legislative clarity may erode trust in tax administration, ultimately undermining compliance objectives.

5. DETERRENCE AND DEBT COLLECTION NUDGES

A notable example of nudges being successfully applied to debt collection comes from the United Kingdom HM Revenue and Customs, which pioneered the use of social norm messages in communication with taxpayers. Taxpayers received letters stating that ‘most people in your area have already paid their tax debts’ – a simple message that significantly improved repayment rates.¹¹⁴ This approach leverages the natural human tendency to conform to perceived societal standards, subtly encouraging taxpayers to settle their debts to align with their peers. However, while nudges offer clear benefits in improving debt collection efficiency, they also raise ethical considerations which risk shifting the equilibrium between taxpayer and tax authority rights and responsibilities.

In many jurisdictions, repeated or overly aggressive deterrence or debt collection nudging may lead to over-compliance or cause unnecessary stress, particularly for low-income earners or those experiencing financial hardship. Insofar as the latter is concerned, the recent ‘Robodebt’ (Online Compliance Intervention Program) scandal in Australia provides a vivid example of the potential consequences. This was a program of automated issue of debt recovery notices issued the Department of Social Services to government welfare assistance recipients based on data matching and data averaging.

In the face of a class action¹¹⁵ and adverse Federal Court findings concerning the legality of the program, the Federal Court declared the Robodebt notice issued to the plaintiff was not a validly issued notice for the purpose of section 1229 of the *Social Security Act 1991* (Cth) as the decision-maker could not have been satisfied that the debt was

¹¹³ Such qualifications are common – the New Zealand provisions, for example, are broadly modelled on the United Kingdom ‘care and management’ provisions contained in the *Inland Revenue Regulation Act 1890* (UK) and the *Taxes Management Act 1970* (UK) ch 9. In Australia, section 15(1)(a) of the *Public Governance, Performance and Accountability Act 2013* (Cth) imposes a duty of ‘proper use and management’ by virtue of it being an accountable authority under that Act. For discussion of the ATO general powers of administration see Inspector-General of Taxation and Taxation Ombudsman, *The Exercise of the Commissioner’s General Powers of Administration: Final Report* (May 2023) <<https://www.igt.gov.au/wp-content/uploads/2023/10/IGTO-Final-Report-The-Exercise-of-the-Commissioners-General-Powers-of-Administration.pdf>>.

¹¹⁴ For discussion, see Hallsworth et al, above n 3, 21.

¹¹⁵ *Prygodicz and Ors v Commonwealth of Australia (No 2)* [2021] FCA 634 (class action settlement approved by Murphy J on 11 June 2021; settlement included refund of approximately 470,000 debts totalling AUD 720 million and AUD 112 million in additional compensation).

owed in the amount of the alleged debt.¹¹⁶ The Australian government ultimately withdrew the program, agreeing in 2021 to refund approximately 470,000 debts totalling approximately AUD 720 million and to pay AUD 112 million in additional compensation.¹¹⁷ In September 2025, a further settlement was reached in the related appeal proceedings, with the Commonwealth agreeing to pay an additional AUD 475 million in compensation, bringing the total settlement value to approximately AUD 587 million.¹¹⁸

This hints at a number of issues concerning accountability and potential tax authority exposure to liability which, although not confined to situations where nudges are used for non-compliance deterrence or tax debt collection purposes, are brought into sharper focus in this context. Perhaps the most obvious of these is the potential for errors in nudges involved in debt collection to increase exposure to large or indeterminate liability to taxpayers. The use of technology and automation to issue such nudges heightens this risk. One obvious reason for this is the fact that the technology and automation used to issue nudges is capable of much greater volumes of work than human actors. This is part of the inherent appeal of technologically facilitated nudges. As noted in section 2 above, for example, the ATO touts having issued approximately 3.02 million SMS nudges to taxpayers in the 2023-24 financial year alone. It is inconceivable that such a volume could have been practically or cost-effectively accomplished if relying on human-to-human interactions. However, if there is an error or other potential exposure to liability created by these automated nudges, the sheer volume and speed of the technology employed may mean potential liability to a much larger number of taxpayers being created before the error or exposure to liability is able to be detected and addressed.

Insofar as detection of exposure to liability is concerned, the problem is potentially compounded by a phenomenon which has been identified in the United States where there is some evidence to indicate that tax officials can become overly reliant or confident in the accuracy of automated tax administration decisions. Specifically, the United States National Taxpayer Advocate has reported that as Internal Revenue Service employees become more reliant on computers to flag returns for audit or determine tax penalties ‘they are losing the ability to discern when the programs have made a mistake’.¹¹⁹ A natural extension of this finding which is of concern to taxpayers is that if tax officials are losing the ability to identify mistakes, then taxpayers may be expected to have even more difficulty identifying such errors and, even if they do, there may be increased difficulties in determining whether and when tax officials may be able to be held accountable for nudging errors.

¹¹⁶ Order of Davies J in *Amato v Commonwealth of Australia* (Federal Court of Australia, VID611/2019, 27 November 2019) (declarations made by consent that the Commonwealth’s averaged-income calculation could not establish that the debt was owed).

¹¹⁷ See n 115 above.

¹¹⁸ Hon Michelle Rowland (Attorney-General), ‘Robodebt Class Action Appeal Settlement’ (Media Release, 4 September 2025) <<https://ministers.ag.gov.au/media-centre/robodebt-class-action-appeal-settlement-04-09-2025>> (accessed 4 June 2026); see also Services Australia, ‘Notice of Proposed Settlement’ (November 2025), available at: <<https://www.servicesaustralia.gov.au/new-robodebt-class-action-settlement?context=60271>>.

¹¹⁹ Reported in Inspector-General of Taxation, *The Future of the Tax Profession* (November 2018) [3.111], citing Alexander Lewis, ‘Big Data Could Help Tax Authorities Profile All Taxpayers’, *Worldwide Tax Daily* (4 May 2018).

6. RECOMMENDATIONS

The recommendations set out in this section are not advanced on the assumption that tax administrations currently lack safeguards relevant to nudging practices. Rather, they are intended to operate as normative principles that may complement, formalise, or refine existing legal, administrative, and institutional protections. The extent to which these recommendations are already reflected in practice will necessarily vary across tax administrations and jurisdictions, particularly given differences in legal frameworks, administrative cultures, and levels of technological adoption.

The preceding discussion has raised a multitude of issues and unresolved questions and potential implications of tax nudges on the delicate existing equilibrium between tax authority powers and taxpayer rights. This section brings together the discussion, extrapolating from the analysis a series of recommendations and suggestions for mitigating the risks identified and maximising the potential of nudges to enhance taxpayer compliance and the tax administration system more generally. In this context, the recommendations which follow address interrelated key themes of transparency, tax morale and allied concepts of tax system fairness and equity, tax authority accountability, and legal risk mitigation.

Insofar as transparency is concerned, as noted in the analysis in section 4 above, the legitimacy of tax nudging is closely tied to transparency and public trust.¹²⁰ The European Commission emphasises that good tax governance requires policymakers to ensure that taxpayers understand the rationale behind tax policy decisions and behavioural interventions.¹²¹ Without such transparency, nudging strategies may inadvertently shift tax burdens without public scrutiny, undermining confidence in the tax system. Where tax morale is concerned, as also noted in numerous instances throughout the discussion, voluntary tax compliance is fostered in an environment in which taxpayers have trust and confidence in the tax system and the administering tax authorities. In turn, trust and confidence depends on assessments of tax system fairness and equity. Tax nudges work best to facilitate such an environment where they are designed and applied in a manner which strikes an appropriate balance between influencing taxpayer behaviour and preserving taxpayer autonomy and freedom of choice. Turning to tax authority accountability, the preceding analysis has disclosed a range of factors that might result in nudging strategies altering existing tax authority accountability to taxpayers and susceptibility to taxpayer suit in the event of loss or harm attributable to nudging. A further relevant overlay crossing each of these overarching themes is issues associated with ‘digital nudges’ and the technologies utilised to facilitate those nudges.

The recommendations that follow are framed as general principles capable of application across a range of tax systems, recognising that implementation will necessarily vary across jurisdictions. With all of this in mind, a set of interrelated principles emerges from the preceding analysis. Rather than functioning as prescriptive rules, these principles are intended to distil the normative implications of the discussion

¹²⁰ Schmidt and Engelen, above n 55.

¹²¹ European Commission, *Communication from the Commission to the European Parliament and the Council on Tax Good Governance in the EU and Beyond*, COM(2020) 313 final (15 July 2020).

and to guide the design and governance of tax administration nudges across jurisdictions.

Neutral nudge design. Drawing on the concerns identified in sections 3 and 4 regarding coercion, over-compliance, and the preservation of taxpayer autonomy, this recommendation emphasises that the tone and structure of nudges should be neutral rather than coercive, supporting informed taxpayer decision-making. Visual elements, such as colour schemes and font choices should avoid inducing undue psychological pressure. Research suggests that aggressive colours like red can create a sense of urgency and anxiety, whereas neutral tones allow for effective communication without intimidation.¹²² For instance, media reports from 2023 cite ATO trials of two different types of nudges to 20,000 taxpayers who were late in paying their taxes:

Two different messages were printed at the top of the letters sent out to the tardy 20,000. One ‘soft’ message said ‘don’t get further behind – lodge now’ while a harder message told recipients that ‘not taking action to get up to date will be treated as a deliberate choice’. An ATO review of the trial found that within a month, 13 per cent of those who had received the ‘soft message’ letter had lodged their tax return. For those sent a ‘deliberate choice’ letter, the lodgement rate was 17 per cent or almost a third higher.¹²³

It is easy to see the inherent attraction for tax authorities going down the ‘harder’ message path. However, this attraction should be resisted. Ensuring that nudges do not manipulate emotions is essential in fostering voluntary compliance rather than compliance based on fear. Neutral design can also assist in ensuring that over-compliance risk is minimised. Further, neutral nudge design helps to ensure nudges do not result in unintended shifting of the tax burden to those more susceptible to pressure brought to bear through nudges. Caution in nudge design in this respect is particularly important in settings in which nudges are used to detect and deter non-compliance.

Affirmation of taxpayer rights. Responding to the issues raised in section 3 concerning reliance on tax authority communications, procedural fairness, and the ability of taxpayers to challenge or question nudges, this recommendation emphasises the need for nudging strategies to be accompanied by clearly communicated avenues for review, clarification, or dispute. This stands to benefit taxpayers and tax officials alike. Insofar as taxpayers are concerned, this minimises the risk of taxpayers passively acquiescing to the view of the Commissioner, and instead fosters an environment in which taxpayers retain a responsibility to educate themselves as to their tax obligations and minimises the risk of ‘infantilisation’ highlighted in the preceding analysis.¹²⁴

¹²² See for example, Interaction Design Foundation, ‘Color in UX Design’ <<https://www.interaction-design.org/literature/topics/color>> (accessed 27 May 2026); and Mario Silic and Dianne Cyr, ‘Colour Arousal Effect on Users’ Decision-Making Processes in the Warning Message Context’ in Fiona Fui-Hoon Nah and Chuan-Hoo Tan (eds), *HCI in Business, Government, and Organizations: Information Systems, Third International Conference, HCIBGO 2016, Held as Part of HCI International 2016, Toronto, Canada, July 17–22, 2016, Proceedings, Part II* (Springer, 2016) 99, 99–109.

¹²³ See Shane Wright, ‘How a Tweak in an Overdue Notice Prompted a 40 Per Cent Jump in Paying Back Taxes’, *The Age* (13 April 2023) <<https://www.theage.com.au/politics/federal/how-a-tweak-in-an-overdue-notice-prompted-a-40-per-cent-jump-in-paying-back-taxes-20230412-p5czql.html>> (accessed 27 May 2026).

¹²⁴ See the discussion at n 77 above and corresponding main text.

In most jurisdictions, existing complaints mechanisms and independent oversight bodies are likely to be capable of addressing concerns arising from nudges. The focus here is therefore on ensuring that these mechanisms are clearly signposted and practically accessible in nudging contexts. From the perspective of the tax authority, if nudges create an environment where individuals feel compelled to accept the tax authority's position without scrutiny, they cease to be a tool for voluntary compliance and instead function as a de facto enforcement mechanism, potentially negatively affecting tax morale and voluntary tax compliance. Accordingly, express acknowledgement and preservation of taxpayer rights to challenge or resist nudges serves to benefit tax authorities in their pursuit of maximising revenue collection through voluntary taxpayer compliance.

A potentially effective way of acknowledging and preserving such rights may be to include some form of express acknowledgement as a revision to any existing taxpayer charter or taxpayer bill of rights. The Australian Taxpayers' Charter already contains an outline of options available to taxpayers under the title of 'Steps to take if you are not satisfied with our service'. One potential challenge with nudges, particularly in the event of digital nudges with no direct human oversight or reference is the ability of taxpayers to take the first step set out in the Charter: 'discuss your concerns with an ATO officer who will try to resolve your issue'.¹²⁵ In the absence of a specific human contact point, a good starting point for ensuring that taxpayers can easily utilise this option in the case of digital or generalised nudges is for the ATO to include a general human contact point for those wishing to query or challenge nudges.

Disclaimer of responsibility. Building on the analysis in sections 3 and 4 regarding assumption of responsibility, legal reliance and the potential erosion of traditional limits on tax authority liability, this recommendation highlights the importance of clarifying the legal status of nudges and limiting unintended legal exposure arising from proactive or personalised communications. There is the risk of nudges being reasonably relied upon by taxpayers with potential legal recourse in the event of loss attributable to an erroneous nudge or failure to nudge. Similar risks include potential assumption of assessment responsibilities not consistent with or contemplated in self-assessment settings. More fundamentally, such nudges risk eroding the traditional immunities from private lawsuit enjoyed by tax officials based on the prevailing judicial view that tax authority duties are owed exclusively to the State with no duties owed to individual taxpayers such as duties to warn taxpayers of potential harm.

To mitigate these risks, some form of disclaimer of responsibility should accompany any proactive and tailored nudging regime. It is conceded that it may be practically difficult for such a disclaimer to accompany every nudge. In the Australian context, an alternative may be for guidance to be issued specifically addressing the legal status of nudges. An obvious starting point would be to revise PS LA 2008/3 to expressly address the issue of whether, when, and to what extent nudges might be relied upon by taxpayers and legally bind the Commissioner. Alternatively, the most legally robust manner to mitigate these risks may be for policymakers to provide legislative clarification and protection preserving existing tax authority protections from taxpayer suit and limits of accountability to taxpayers.

¹²⁵ See Australian Taxation Office, 'Our Charter', above n 88.

Nudge audits. Reflecting the concerns identified across sections 2, 3 and 4 regarding accountability, fairness, and unintended consequences of widespread nudging, this recommendation proposes ongoing evaluation of nudging regimes to ensure that behavioural interventions operate as intended without undermining taxpayer trust or procedural fairness. Regular evaluations should measure whether nudges achieve their intended objectives without disproportionately disadvantaging specific groups or eroding trust in the tax system. These evaluations should also consider taxpayer feedback and compliance outcomes to adjust strategies accordingly. By implementing these safeguards, tax administrations can ensure that nudges remain effective without eroding taxpayer trust or procedural fairness.¹²⁶

The importance of systematic evaluation is reinforced by empirical evidence indicating substantial heterogeneity and potential bias in reported nudge effects. Antinyan and Asatryan document wide variation in compliance responses across jurisdictions, taxpayer types, and delivery mechanisms, as well as evidence of publication selection bias favouring statistically significant results.¹²⁷ These findings highlight the risk that tax administrations may overestimate the effectiveness of nudging strategies if they rely selectively on positive trial outcomes.¹²⁸ Regular nudge audits and impact evaluations therefore serve not only behavioural optimisation objectives, but also an accountability function, ensuring that nudging regimes are grounded in realistic expectations and remain consistent with principles of fairness, proportionality, and responsible public administration.

Nudge impact assessments. Responding to issues raised in sections 2 and 4 concerning distributive effects, transparency, and democratic accountability, this recommendation emphasises the need for upfront assessment of the potential impacts of nudging strategies on different taxpayer groups and on the tax system more broadly. Such impact should extend to assessing the potential for nudges to redistribute wealth without clear policy intent or democratic accountability. This is consistent with the approach recommended by Sunstein and Reisch, who caution against the use of nudges that result in economic transfers without taxpayer consent.¹²⁹

It is clear from nudging research to date that while tax nudging aims to improve compliance rather than alter distributional outcomes, certain behavioural interventions may disproportionately burden specific taxpayer groups, particularly those with lower incomes or limited resources to navigate the tax system and others more susceptible to ‘nudgeability’.¹³⁰ Social norm nudges, for example, have been shown to disproportionately impact lower-income taxpayers, who may comply due to perceived social pressure rather than financial ability.¹³¹

¹²⁶ This is also consistent with recommendations by Sunstein, who argues that continuous monitoring and refinement of nudges is vital to uphold ethical standards and maintain public trust in tax administration. See Sunstein, ‘Nudging’, above n 12.

¹²⁷ Antinyan and Asatryan, above n 3.

¹²⁸ Ibid.

¹²⁹ Sunstein and Reisch, above n 47.

¹³⁰ As discussed at n 33 above and corresponding main text.

¹³¹ Oscar Calvo-González, Abel Cruz and Marco Hernandez, ‘The Ongoing Impact of “Nudging” People to Pay Their Taxes’, *World Bank Blogs* (4 December 2018) <<https://blogs.worldbank.org/en/voices/ongoing-impact-nudging-people-pay-their-taxes>> (accessed 27 May 2026).

The practical challenge associated with this recommendation is designing and assessing an appropriate nudge impact assessment that is capable of capturing such potential adverse effects. In particular, it is acknowledged that it may be easier to retrospectively measure responses to nudges among particular taxpayer groups rather than proactively doing so prior to implementation. As such, an appropriate nudge impact assessment may simply need to confirm that the features of the nudge regime are such as to minimise the risks. For example, a relevant impact assessment may include confirmation of neutral nudge design features as recommended above.

An appropriate impact assessment will also contain additional checks where digital nudges are concerned – which address potential additional issues around matters such as algorithmic transparency and comprehensibility. There are already precedents in existence for dealing with such matters and these matters are discussed further below in the context of specific recommendations for scrutiny of digital nudges.

Scrutiny of digital nudges. Drawing directly on the analysis in sections 2 and 4 concerning AI-enabled nudges, including issues of opacity, scale, bias, privacy, and accountability, this recommendation underscores the need for heightened scrutiny and governance safeguards where technology is used to facilitate personalised or automated nudging. As tax nudges increasingly rely on big data and AI-driven personalisation, safeguarding taxpayer privacy is paramount. Effective and ethically responsible nudging must be balanced with privacy rights and data protection considerations. Many behavioural tax interventions rely on individualised taxpayer data, raising concerns about data security, the potential misuse of personal financial information, and the extent to which tax nudges intrude on privacy.

The United States Privacy Impact Assessment (PIA) framework may serve as a good model for responsible data use in tax nudging.¹³² A PIA is an analysis of how personally identifiable information (PII) is collected, used, shared, and maintained. It aims to identify and mitigate privacy risks associated with new projects or systems handling sensitive data. Federal agencies, such as the Department of Homeland Security, are required to conduct PIAs when developing or procuring new technologies or systems that handle PII. This process ensures that privacy considerations are integrated into the development lifecycle, promoting transparency and accountability in data practices. A similar approach could be adopted to assess privacy risks associated with behavioural interventions. By embedding privacy risk assessments into tax nudging policies, tax administrations can protect taxpayer data while maintaining public trust in compliance efforts.

Beyond privacy, the analysis shows that digital nudges run the risk of creating large and indeterminate liability in the event of error or omission. This stems in part from the speed and volume of nudges able to be generated by powerful technological aids and AI. In the Australian context, the failed Robodebt scheme discussed in section 5 above serves as a pertinent and powerful contemporary reminder of the potential public exposure and erosion of public trust and confidence that can be caused by poorly administered uses of such technology, particularly in tax debt calculation and collection contexts.

¹³² See United States Department of Homeland Security, 'Privacy Impact Assessments' (last updated 2 June 2026) <<https://www.dhs.gov/privacy-impact-assessments>> (accessed 2 June 2026).

One way to mitigate and guard against this risk is to ensure that clear lines of human oversight and accountability are expressly set out in any proposal to utilise technology to facilitate wide-scale nudging activities. The issue of human accountability for machine-based decision-making is a matter of significant unresolved contemporary debate which is beyond the proper scope of this article. However, the International Monetary Fund has proposed two primary governance models in AI-based tax compliance which may be useful to consider in the nudge context: Human-in-the-Loop (HITL) and Human-on-the-Loop (HOTL). These offer different approaches to balancing efficiency and accountability in AI-driven decision-making.¹³³ Of course, a practical first step is simply to ensure that a relevant tax official is nominated as responsible for any new nudging regime proposal.

A further potential issue is the opacity and secrecy of algorithms powering technology used to issue tax nudges, particularly those used for non-compliance detection and prompting. Again, this matter (although touched upon in section 4 above) is one beyond the scope of this article to fully examine.¹³⁴ However, as the preceding analysis has shown, these characteristics raise fundamental questions of accountability and comprehensibility. Ideally, therefore, digital nudges should only be employed in situations in which tax authorities are prepared to be transparent in the algorithms used in nudging settings. There should also be a commitment to algorithmic comprehensibility, particularly in settings where nudges are used to target particular taxpayer groups. This is particularly important to detect and eliminate potential entrenched biases.

Bias audits. Responding to concerns identified in sections 2 and 4 regarding algorithmic bias, disparate impact, and the targeting of vulnerable taxpayer groups, this recommendation highlights the importance of periodic bias detection assessment of nudging regimes, particularly where AI-driven systems are used. In the case of digital nudges, this extends to ensuring that machines are trained on diverse taxpayer datasets to prevent discrimination and ensure fairness. Such audits should be carried out by independent audit committees. These could consist of representatives of independent regulatory bodies or academic researchers. In the case of digital nudges, it will also be necessary to ensure that those audit committee representatives are sufficiently qualified to be able to assess potential bias in any technologies or underpinning algorithms used to facilitate nudging.

Such audits should also extend to specifically examining whether and to what extent nudges are used to frame tax obligations in a way that pressures individuals to comply without fully considering their options, thus ceasing to function as voluntary mechanisms and instead operating as an indirect form of enforcement. Ideally such nudges should be avoided from the outset and scrutiny in this respect should also be included in any preliminary nudge impact assessment, particularly in cases where nudges are proposed to be used to detect non-compliance. However, particularly in the case of AI-powered nudges, the self-learning nature of AI programs means it is possible

¹³³ See Joshua Aslett, Ignacio González, David Hadwick, Stuart Hamilton, Michael Hardy and Azael Pérez, *Understanding Artificial Intelligence in Tax and Customs Administration* (International Monetary Fund Technical Notes and Manuals, 2024) <<https://www.imf.org/en/Publications/TNM/Issues/2024/11/21/Understanding-Artificial-Intelligence-in-Tax-and-Customs-Administration-555097>>.

¹³⁴ For discussion see Bevacqua, 'Unmasking the Robots', above n 98.

that biases may become entrenched or exacerbated over time, even where they were not a material risk when initially implemented. For this reason, it is not sufficient for bias considerations to start and end with an initial nudge impact assessment. This is especially true if the logic is accepted that any intelligent machine trained on historical data will necessarily replicate historical biases irrespective of best endeavours to eliminate additional or deliberate bias.¹³⁵

Taxpayer education. Building on the discussion in sections 3 and 4 concerning tax morale, taxpayer autonomy, and the risk of passive compliance, this recommendation emphasises the importance of complementing nudges with educational measures designed to support active and informed taxpayer engagement.

As observed in the preceding analysis, over-dependence on nudges may risk eroding independent taxpayer understanding of their tax rights and obligations. As such, tax administrators should consider integrating ‘boosts’ – interventions aimed at improving taxpayers’ decision-making capabilities – alongside nudges to encourage active, informed compliance rather than passive behavioural responses.¹³⁶ This recommendation could be included as part of any nudge impact assessment to ensure that from the outset nudging regimes include an educational element aimed at boosting taxpayer tax literacy and independence.

The benefits for the relevant tax authority include providing tangible evidence to rebut any presumption that nudges represent any express or implicit assumption of responsibility to ensure accuracy and completeness of tax disclosures by taxpayers. An added bonus is the ability to demonstrate a genuine commitment beyond maximising revenue collection and extending to fostering a relationship of trust and confidence with taxpayers (with its allied benefits of boosting voluntary compliance) with minimal attendant legal risks for the tax authority.

This recommendation is most relevant in the context of nudges used for information or advice provision. In this context a related imperative is to ensure that, to the extent nudges are used to alert taxpayers to the existence of tax incentives or relief mechanisms, those nudges are designed to reach all eligible taxpayers – not only those most responsive to nudging. Studies have shown that opt-in tax incentives relying on behavioural prompts risk excluding taxpayers who fail to engage with these nudges, thereby widening inequalities in benefit uptake.¹³⁷ Again, this is a matter which in the case of such nudges should be included in any up-front nudge impact assessment regime and any nudge audit regime once implemented.

7. CONCLUSIONS

This article has examined the increasing use of nudges in tax administration and the implications of these practices for the existing balance between tax authority powers and taxpayer rights. Nothing in the preceding analysis seeks to deny the potential of nudging to remain a constructive and effective administrative tool, capable of supporting compliance and simplifying aspects of taxpayer decision-making. Rather, the analysis has demonstrated that the use of nudges, particularly when mass-deployed

¹³⁵ This reasoning was noted at n 101 above and corresponding main text.

¹³⁶ For an excellent discussion of ‘boosts’ in a nudging context, see Till Grüne-Yanoff, ‘Boosts vs Nudges from a Welfarist Perspective’ (2018) 128(2) *Revue d’Économie Politique* 209.

¹³⁷ Andersson et al, above n 102. See also Hallsworth et al, above n 3.

or through automated and AI-enabled systems, raises a range of under-examined legal, institutional, and governance issues.

The discussion has shown that nudges can affect taxpayer rights and tax authority responsibilities in ways that are not always immediately apparent. These effects arise across multiple contexts, including information provision, non-compliance detection, and deterrence and debt collection. In each of these settings, nudges may influence taxpayer behaviour in ways that engage questions of reliance, transparency, procedural fairness, accountability, and autonomy. Where nudges are delivered through digital or AI-enabled systems, these concerns may be intensified by issues of opacity, bias, scale, and data use.

The recommendations proposed in this article are not advanced on the assumption that tax administrations currently lack relevant safeguards. Rather, they are intended to articulate a set of normative principles that may complement, clarify, or refine existing legal and administrative frameworks. The extent to which these recommendations are already reflected in practice will necessarily vary across tax administrations and jurisdictions, depending on differences in legal structures, administrative cultures, and levels of technological adoption. By making these principles explicit, the article seeks to contribute to a more transparent and legally grounded approach to the design and use of tax administration nudges.

Ultimately, across many tax administrations, the challenge for tax administrations is not whether nudges should be used, but how they should be designed and governed in a manner that preserves taxpayer rights, maintains public trust, and supports voluntary compliance. A failure to attend to these considerations risks undermining the legitimacy of nudging practices and, in the longer term, the effectiveness of the tax system itself.

These issues also point to several important directions for future research. Further doctrinal and comparative analysis is needed to examine the legal status of tax administration nudges, including questions of taxpayer reliance, reviewability, and the extent to which existing administrative law principles adequately accommodate nudging practices. Additional research could examine how taxpayer charters, complaints mechanisms, and independent oversight frameworks are adapting in practice to automated and AI-enabled nudging systems, and whether these frameworks provide sufficient clarity and accessibility for taxpayers affected by nudges. In jurisdictions where AI-driven nudges are deployed system-wide, closer examination of governance arrangements, accountability structures, and safeguards addressing opacity, bias, data use, and error propagation is particularly warranted. Empirical research exploring how taxpayers understand, interpret, and respond to nudges from a legal and rights-based perspective would also complement the analysis presented in this article.

Technology and tax literacy of small business owners in New Zealand – views from tax practitioners

Harry Waddell*

Abstract

This article seeks to explore whether tax practitioners perceive that Inland Revenue's Business Transformation program (which aligns with the OECD's vision for Tax Administration 3.0), and the technology used by small businesses, have impacted upon the tax literacy levels of small business owners in New Zealand (and if so, whether this impact has been positive or negative). Specifically, this article draws on semi-structured interviews with tax practitioners who work with small businesses and their owners. Results show that tax practitioners consider that the natural systems (ie, the digital systems) of most small businesses are cloud accounting systems and that this technology has improved the records kept by small businesses. However, the majority of tax practitioners thought that technology used by small businesses, and Inland Revenue's BT program, has had a negative impact on tax literacy. Some tax practitioners were also of the view that Inland Revenue's BT program has made it more difficult for some small business owners (eg, those with low levels of digital literacy) to interact with Inland Revenue. To this end, the results have implications for both policymakers and those who work with small businesses.

Keywords: tax literacy, technology, small business owners, New Zealand

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1. INTRODUCTION

Economies are becoming increasingly digitalised, meaning that individuals and businesses are changing the way that they work, how they transact, and how they store records and information.¹ To this end, there are greater expectations of tax administrations and the way that they can support taxpayer compliance. In response, many tax administrations have embraced digitalisation and e-government,² and in 2020, the Organisation for Economic Co-operation and Development (OECD) set out a vision for the digital transformation of tax administration known as Tax Administration 3.0.³ New Zealand is at the forefront of this movement,⁴ and the New Zealand Inland Revenue Department has recently completed the multi-year Business Transformation (BT) program which was aimed at delivering a modern, digital revenue system that makes tax and payments simpler and more certain.⁵ A key part of the BT program was a shift to a new computer system, Simplified Tax and Revenue Technology (START).⁶

Alongside developments in tax administration, the technology, and therefore the natural systems, used by taxpayers has also advanced. For many businesses, the proliferation of cloud accounting systems (which increasingly utilise artificial intelligence and machine learning) has resulted in significant changes to the tax compliance process, with more components being automated. In addition, some cloud accounting systems directly interface with START, which means that tax data can be shared between the natural systems used by small businesses and START.

Proponents of technology argue that these trends are positive because they decrease compliance costs, reduce errors (ie, unintentional non-compliance) and minimise opportunities for evasion (ie, intentional non-compliance).⁷ However, it is less clear as to the impact of technology on tax literacy, with some research indicating that too much automation could lead to disengagement,⁸ and that a lack of personal engagement can encourage people to operate outside of the tax system.⁹

Previous research has identified small business owners as having low levels of tax literacy,¹⁰ and accordingly, this article seeks to explore whether tax practitioners

¹ Organisation for Economic Co-operation and Development (OECD), 'Digital Transformation of Tax Administration'

<<https://www.oecd.org/en/topics/sub-issues/digital-transformation-of-tax-administration>>.

² Bernadene de Clercq, 'The "Uberisation" of E-Filing in South Africa' (2019) 16(3) *eJournal of Tax Research* 440.

³ OECD, *Tax Administration 3.0: The Digital Transformation of Tax Administration* (OECD Publishing, 2020) ('*Tax Administration 3.0*').

⁴ New Zealand was one of the original five members of the Digital 5 ('D5') nations, with this group now being known as 'Digital Nations'. See, eg, Adrian Sawyer, 'The Impact of Digital Delivery on Taxpayer Assistance – A New Zealand Perspective' (4th International Conference on Taxpayer Rights, 2019).

⁵ Inland Revenue, 'Business Transformation' (last updated 2 July 2021) <<https://www.ird.govt.nz/about-us/business-transformation>> (accessed 20 May 2026) ('Business Transformation').

⁶ Ibid.

⁷ OECD, *Tax Administration 3.0*, above n 1.

⁸ Lawrence Zelenak, *Learning to Love Form 1040: Two Cheers for the Return-Based Mass Income Tax* (University of Chicago Press, 2013).

⁹ Simon James and Adrian Sawyer, 'Digitalization of Tax: Comparing New Zealand and United Kingdom Approaches' (Atax 13th International Tax Administration Conference, 2018).

¹⁰ See, eg, Margaret McKerchar, 'Understanding Small Business Taxpayers: Their Sources of Information and Level of Knowledge of Taxation' (1995) 12(1) *Australian Tax Forum* 25; Eliza Ahmed and Valerie Braithwaite, 'Understanding Small Business Taxpayers: Issues of Deterrence, Tax Morale, Fairness and

perceive Inland Revenue's BT program and, the technology used by these small businesses, as impacting upon their tax literacy levels (and if so, whether this impact has been positive or negative). Specifically, this article draws on semi-structured interviews with tax practitioners who work with small businesses and their owners.

Section 2 of this article briefly summarises the relevant literature. Details of the research method are outlined in section 3. For the purpose of this article, tax practitioners are referred to as 'Tax Practitioner A' through to 'Tax Practitioner J'. The research results are outlined in section 4, and analysis of these results is undertaken in section 5. Conclusions are provided in section 6, along with limitations and a proposal for future research.

2. RELEVANT LITERATURE

2.1 Tax literacy

In simple terms, tax literacy can be described as 'having the knowledge, skills and confidence to make responsible tax decisions'.¹¹ The concept of tax literacy is broader than just having tax knowledge and requires that taxpayers have the confidence to apply that knowledge in their everyday lives.¹² There is a significant overlap between tax literacy and financial literacy, and Chardon has argued that tax literacy is a subset of financial literacy.¹³ It is widely acknowledged that financial literacy (and tax literacy) are essential skills, and recent times have seen an increase in governments implementing measures to increase these skills.¹⁴ Previous research has also identified digital literacy as being a facet of tax literacy;¹⁵ however de Clercq notes that:¹⁶

[The core foundations identified in the literature] were not necessarily stated *per se*, but identified by the attendant digital competency required. For example, being able to use technology to be compliant requires taxpayers to be sufficiently digitally literate to submit tax returns via an online portal; being able to access and read legislation and other tax-related materials would require a level of literacy; and the ability to calculate tax liability would require basic numeracy that includes adding, subtracting and multiplying.

Work Practice' (2005) 23(5) *International Small Business Journal* 539; Melissa Belle Isle, Brett Freudenberg and Tapan Sarker, 'The Business Tax Literacy of Australian Small Businesses' (2022) 37(1) *Australian Tax Forum* 65 ('The Business Tax Literacy of Australian Small Businesses').

¹¹ Antoine Genest-Grégoire, Luc Godbout and Jean-Herman Guay, *The Knowledge Deficit about Taxes: Who It Affects and What to Do About It* (CD Howe Institute Commentary No 484, July 2017) 4.

¹² Anthony Pham, Antoine Genest-Grégoire, Luc Godbout, and Jean-Herman Guay, 'Tax Literacy: A Canadian Perspective' (2020) 68(4) *Canadian Tax Journal* 987.

¹³ See, eg, Toni Chardon, 'Weathering the Storm: Tax as a Component of Financial Capability' (2011) 5(2) *Australasian Accounting, Business and Finance Journal* 53.

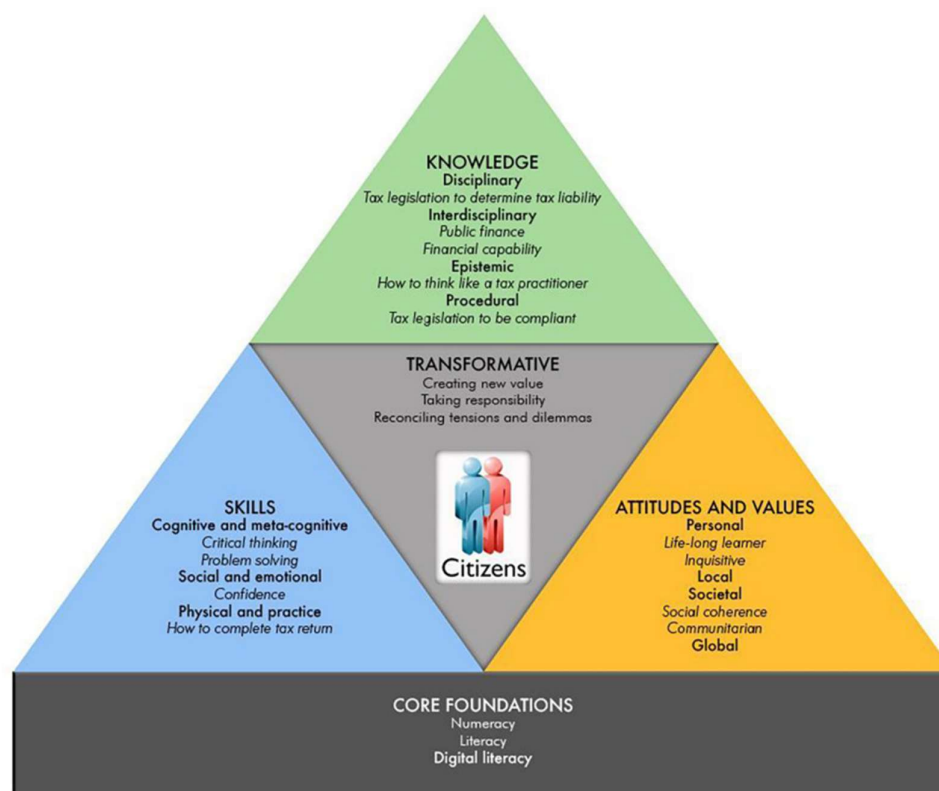
¹⁴ In the New Zealand context, the New Zealand government has recently announced that financial literacy (and tax literacy) courses will be compulsory for students in Years 1 through to 10.

¹⁵ See, eg, Ahmed Razman Abdul Latiff, Bany-Arifin Amin Noordin, Mohamad Rafli Che Omar and Dwiprptono Agus Harjito, 'Tax Literacy Rate Among Taxpayers: Evidence from Malaysia' (2005) 9(1) *Jurnal Akuntansi dan Auditing Indonesia* 1; Attiya Waris and Hadija Murangwa, 'Utilising Tax Literacy and Societal Confidence in a State: The Rwandan Model' (2012) *University of Nairobi Law Journal* 1; Dajana Cvrlije 'Tax Literacy as an Instrument of Combating and Overcoming Tax System Complexity, Low Tax Morale and Tax Non-Compliance' (2015) 4(3) *The Macrotheme Review* 156; Genest-Grégoire, Godbout and Guay, above n 11.

¹⁶ Bernadene de Clercq, 'Tax Literacy: What Does It Mean?' (2023) 31(3) *Meditari Accountancy Research* 501, 509.

To this end, de Clercq proposes a competency framework for tax literacy which is shown in Figure 1.¹⁷

Fig. 1: De Clercq's Competency Framework for Tax Literacy



Source: Bernadene de Clercq, 'Tax Literacy: What Does It Mean?' (2023) 31(3) *Meditari Accountancy Research* 501, 507 (adapted from the OECD learning framework 2030).

De Clercq's competency framework is based upon work undertaken by the OECD in 2019, which identified fundamental conditions and core skills, knowledge, attitudes and values that are viewed as being 'the building blocks from which context-specific competencies for 2030, such as financial literacy ... can be developed'.¹⁸ These core foundations are literacy, numeracy and digital literacy, with the latter being defined as 'rel[ying] on the same fundamental abilities as "traditional" literacy; but [being] applied

¹⁷ Ibid 507.

¹⁸ Ibid 506 citing OECD, *Future of Education and Skills 2030: OECD Learning Compass 2030, A Series of Concept Notes* (OECD Publishing, 2019) ('*Future of Education and Skills 2030*').

in digital contexts and draw[ing] on new digital tools and competencies'.¹⁹ De Clercq's competency framework argues that being tax literate requires that three prerequisites are met, being numeracy, 'traditional' literacy, and digital literacy.

This research considers tax literacy as it relates to small businesses and their owners. For this purpose, a small business is defined to mean one that has 20 employees or less,²⁰ irrespective of the legal structure adopted. Accordingly, this definition includes sole traders. Because a legal structure cannot be tax literate in and of itself, this research is concerned with the owners of small businesses. In addition, it should be noted that while there are some differences between how different legal structures are taxed in New Zealand (for example, the company tax rate is 28 per cent, and is subject to the imputation system, whereas individuals are subject to a progressive system with a top rate of 39 per cent), generally, the same taxation principles apply irrespective of the legal structure adopted.

Small businesses are the focus of this article (as opposed to individuals or larger businesses) because, in the New Zealand context, the vast majority of individuals in New Zealand are not required to file an income tax return due to automatically issued tax assessments (and therefore, they are not explicitly required to take a tax position). Income tax is withheld at source on salaries/wages in most instances, and there is a very limited range of deductions available (eg, accounting fees and income protection insurance if the proceeds from that insurance will be assessable income). On the other hand, larger businesses have greater resources which allow them to meet their tax obligations more easily, compared to smaller businesses.²¹ Larger businesses may also gain other managerial benefits from meeting their tax obligations.²² In addition, small businesses are more likely to evade tax and are renowned for their participation in the shadow economy.²³ Furthermore, small businesses owe disproportionate amounts of tax debt to Inland Revenue, with 15 per cent of small businesses owing one third of total tax debt.²⁴

There has been limited research on the tax literacy levels of small businesses owners in New Zealand,²⁵ however, research in other jurisdictions such as Australia has shown

¹⁹ OECD, *Future of Education and Skills 2030*, above n 18, 49.

²⁰ This definition of a small business is used by the New Zealand Ministry of Business, Innovation and Employment, and the Australian Bureau of Statistics.

²¹ See, eg, Cedric Sandford and John Hasseldine, *The Compliance Cost of Business Taxes in New Zealand* (Victoria University of Wellington Institute of Policy Studies, 1992); Colmar Brunton, *Measuring the Tax Compliance Costs of Small and Medium-Sized Businesses – A Benchmark Survey, Final Report* (Report Prepared for Inland Revenue Department, 2005). For more recent studies, see, eg, Philip Lignier and Chris Evans, 'The Rise and Rise of Tax Compliance Costs for the Small Business Sector in Australia' (2012) 27(3) *Australian Tax Forum* 615; Ranjana Gupta and Adrian Sawyer, 'The Costs of Compliance and Associated Benefits for Small and Medium Enterprises in New Zealand: Some Recent Findings' (2015) 30(1) *Australian Tax Forum* 135.

²² See, eg, Philip Lignier, 'A Silver Lining in the Tax Compliance Cost Cloud? A Study of the Managerial Benefits of Tax Compliance in Small Business' in Margaret McKerchar and Michael Walpole (eds), *Further Global Challenges in Tax Administration* (Fiscal Publications, 2006) 415.

²³ See, eg, OECD, Forum on Tax Administration SME Compliance Sub-Group, *Reducing Opportunities for Tax Non-Compliance in the Underground Economy* (OECD Publishing, 2012); Ahmed and Braithwaite, above n 10.

²⁴ Inland Revenue, *Identifying Sanction Thresholds Among SME Tax Debtors: An Overview* (2020) <<https://www.ird.govt.nz/about-us/publications/research-evaluation/tax-debt>>.

²⁵ The author is aware of two empirical studies which had conflicting results. The first of these is Lin Mei Tan, 'Coping with Tax Obligations: A Preliminary Study of Some Small Firms in New Zealand' (1997)

that the tax literacy levels of small business owners are low. For example, Belle Isle, Freudenberg and Sarker explored levels of tax literacy amongst Australian small business owners in the service sector.²⁶ A large-scale survey showed that over half of small business owners had a tax literacy score of ‘low’ or ‘poor’. In comparison, just over a quarter had a ‘medium’ or ‘high’ level of tax literacy, with the remainder having a ‘basic’ level of tax literacy.

2.2 Tax Administration 3.0

Following the 2019 OECD Forum on Tax Administration Plenary in Santiago, the OECD released a discussion paper that set out a vision for the digital transformation of tax administration, where taxation becomes more of a seamless and frictionless process. Specifically, Tax Administration 3.0 posits that tax administration will become taxpayer-centric, with taxation processes (which include identity, verification, assurance, tax calculations and payments, amongst other things) occurring in the natural systems of taxpayers. The natural systems are systems that taxpayers use to transact, run their business, make or receive payments, communicate, etc. An example of Tax Administration 3.0 that OECD refers to is the Pay As You Earn (PAYE) system for salaried employees that has been adopted in a number of jurisdictions. Specifically, the OECD states that:²⁷

In many of these systems, taxation processes are embedded in the payroll software used by employers to pay their employees.

These payroll systems, which form part of the natural systems of taxpayers, automatically calculate the tax due alongside salary calculations and, in many cases, then directly send the tax payment to the tax administration.

The burdens on the employer and employee are relatively low, and the tax gap negligible. For example, a UK tax gap report estimated that the tax gap was less than 1% for PAYE compared to 15% for self-reported income by small and medium sized enterprises (SMEs).

The OECD states that, globally, the benefits of Tax Administration 3.0 (and moving taxation processes into taxpayers’ natural systems include):²⁸

- the significant reduction (or elimination) of burdens on taxpayers because tax is calculated (and potentially paid) when the taxable event occurs in their natural systems;

13(3) *Australian Tax Forum* 337. While this research did not specifically focus on tax literacy, the findings indicated that small businesses did not appear to have difficulty in regard to understanding and complying with tax obligations. The second of these is Natrah Saad, ‘Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers’ View’ (2014) 109 *Procedia-Social and Behavioral Sciences* 1069. This research concluded that the small businesses had inadequate knowledge of the tax system. The reason for these conflicting results is unclear, and given the time that has elapsed since these studies, more contemporary research would be beneficial.

²⁶ Belle Isle, Freudenberg and Sarker, ‘The Business Tax Literacy of Australian Small Businesses’, above n 10; Melissa Belle Isle and Brett Freudenberg, ‘A Comprehensive Analysis of the Business Literacies of Australian Small Businesses’ (2021) 23(1) *Journal of Australian Taxation* 67.

²⁷ OECD, *Tax Administration 3.0: From Vision to Strategy* (2025) 11 (footnote omitted).

²⁸ *Ibid* 12.

- errors caused by taxpayer mistakes and negligence are reduced (or eliminated), as is deliberate non-compliance;
- taxpayers receive benefits (an example of these benefits in the New Zealand context is family tax credits) automatically;
- more real-time tax certainty which makes it easier for taxpayers to understand their tax and cashflow position;
- increasing the control that taxpayers have over their data given that personal or sensitive data is not centralised in tax administration systems;
- reducing (or eliminating) the need for new standalone systems to be developed because taxation processes occur in the taxpayers' natural systems;
- the potential for developing standardised technological solutions which can connect tax administrations and third parties;
- reduced costs associated with changes in tax legislation because the processes that deal with these are embedded in taxpayers' natural systems.

Notably, increasing tax literacy is not explicitly mentioned by the OECD as being a benefit of Tax Administration 3.0. Rather, tax literacy appears to be less relevant in the context of Tax Administration 3.0, given that the Tax Administration 3.0 is aimed at 'making tax just happen'.²⁹ While it could be argued that tax literacy is not as important in a world where tax compliance is largely automated, previous research has shown that increased tax literacy has benefits other than improving tax compliance. For example, previous research by Belle Isle, Freudenberg and Sarker concluded that tax literacy positively impacts upon the ability of small business owners to perform effective cashflow management.³⁰ In any instance, tax literacy is important for civic engagement because it ensures that taxpayers are aware of their rights and responsibilities, and because it allows taxpayers to hold their governments accountable.³¹

As alluded to above, previous research has concluded that Tax Administration 3.0 assists in reducing tax evasion and tax avoidance, and enhancing tax compliance.³² In addition, previous research has concluded that Tax Administration 3.0 has changed the role that tax practitioners play. For example, Sonnerfeldt states:³³

Digitization and digitalization have led to a more dependence on tax technologies. Tax expertise, once primarily held by tax professionals, is increasingly shifting toward organizations and commodities.

²⁹ OECD, *Tax Administration 3.0*, above n 3, 15.

³⁰ Melissa Belle Isle, Brett Freudenberg and Tapan Sarker, 'Does Tax Literacy Matter? The Relationship Between Small Business Literacy and Business Performance and Cash Flow' (2023) 25(1) *Journal of Australian Taxation* 5 ('Does Tax Literacy Matter?').

³¹ De Clercq, above n 16.

³² See, eg, Rida Belahouaoui and El Houssain Attak, 'Digital Taxation, Artificial Intelligence and Tax Administration 3.0: Improving Tax Compliance Behavior – A Systematic Literature Review Using Textometry (2016-2023)' (2024) 37(2) *Accounting Research Journal* 172.

³³ Amanda Sonnerfeldt, 'Navigating the Digital Frontier: The Implications of Tax Technology on Systems of Expertise and Legitimacy in Taxation' in Åsa Hansson and Joakim Wernberg (eds), *Taxation in the Digital Era: Economic, Legal, and Policy Challenges* (Palgrave Macmillan, 2026) 153, 159.

Notwithstanding the above findings, the author is unaware of any research that has considered the impact (if any) that Tax Administration 3.0 has on tax literacy. Accordingly, this research seeks to contribute to this underexplored area.

2.3 BT program

In November 2015, the New Zealand government agreed to invest in transforming Inland Revenue, overhauling systems that had been in use since the 1980s.³⁴ This project, known as the BT program, was aimed at making the digital interface the principal mechanism for taxpayer interaction with Inland Revenue. To this end, the BT program was aimed at delivering a modern, digital revenue system: (i) ‘based around customers’ needs’; (ii) ‘that is easy to understand and interact with’; (iii) ‘that is based on near real-time information’; (iv) ‘that is digital and highly automated’; (v) ‘where systems and software do most of the work’; (vi) ‘that is more responsive, flexible, and certain for customers’; (vii) ‘that is future-proofed to accommodate change’, and (viii) ‘that allows for services to be delivered with others both inside and outside government’.³⁵

As part of the BT program, Inland Revenue implemented the START system. The START system replaced Inland Revenue’s legacy systems and all taxpayer accounts have now been migrated to the START system.³⁶ Notably, the START system allows accounting systems to submit data (including tax returns) to Inland Revenue digitally, and to receive data from Inland Revenue (such as tax statements). For taxpayers, the START system is accessed through myIR Secure Online Services (myIR), which is aimed at providing taxpayers with the means to do much of what they need to do themselves. Inland Revenue provides the following example:³⁷

For instance, people receiving Working for Families Tax Credits can use myIR to check that their money is on the way, no matter where they are. They don’t need to call us to get that peace of mind.

Inland Revenue notes that use of digital channels has increased significantly in recent years, with user sessions for myIR trebling from 17 million for the year ended 30 June 2016 to 50 million for the year ended 30 June 2021.³⁸ To the author’s knowledge, the most recently published statistics are for the year ended 30 June 2024, which state that user sessions for myIR for this period were 65 million.³⁹ These statistics also show that, in the same period, 99.2 per cent of tax returns (across all tax types) were filed digitally.⁴⁰

³⁴ Inland Revenue, ‘Business Transformation’, above n 5.

³⁵ Inland Revenue, ‘Programme Business Case’ (last updated 17 March 2022) <<https://www.ird.govt.nz/about-us/business-transformation/where-we-started/programme-business-case>> (accessed 21 May 2026).

³⁶ Inland Revenue, ‘Taxpayers Get a Smarter and Fairer System’ (Media Release, 2 May 2019) <<https://www.ird.govt.nz/media-releases/2019/taxpayers-get-a-smarter-and-fairer-system>> (accessed 21 May 2026).

³⁷ Inland Revenue, *Annual Report 2021* (2021) 30.

³⁸ Inland Revenue, *Final Programme Business Case Addendum: Business Transformation, Implementing a Digital Revenue System* (2022).

³⁹ Inland Revenue, *Annual Report 2023-24* (2024) 63 (‘*Annual Report 2023-24*’). Interestingly, this statistic was not included in Inland Revenue’s *Annual Report 2024-25* (‘*Annual Report 2024-25*’) for the year ended 30 June 2025.

⁴⁰ Inland Revenue, *Annual Report 2023-24*, above n 39.

There is a significant overlap between the stated aims of the BT program (and the implementation of START) and the OECD's vision for Tax Administration 3.0. For example, the OECD states that one of the benefits of Tax Administration 3.0 is more real-time tax certainty, and one of the stated aims of the BT program was to provide a tax system based on real-time information. This is only one example.

However, the digitalisation of tax administration through developments such as the BT program is problematic for certain members of society, especially those who may be 'digitally challenged'.⁴¹ That is, digitalisation requires that the taxpayer has access to a computer, tax software, a reliable internet connection and the required knowledge to utilise e-filing.⁴² If taxpayers do not have the ability to engage digitally, then they may be forced to engage third parties (such as tax practitioners) or they may ignore tax obligations entirely.⁴³ Accordingly, there is a significant relationship between digital literacy, tax literacy and tax compliance.⁴⁴ In the context of the BT program, Sawyer comments that:⁴⁵

Even without digitalization it is clear there are many taxpayers facing difficulties in interacting with IR. It has become increasingly difficult over the last few years for taxpayers to ask for official help from IR on a face-to-face basis or even by telephone. This is a consequence of IR closing regional and district offices, and a less than effective telephone services where many calls fail to be answered.

Accordingly, Sawyer suggests that there is considerable scope for enhancing tax services for the digitally challenged, and that Inland Revenue should be playing a significant role with support from government and other charitable and voluntary agencies.⁴⁶ Specifically, Sawyer suggests that New Zealand should implement a project similar to Tax Help, which was run in the United Kingdom by a charity known as Tax Volunteers.⁴⁷ This charity provides confidential and free advice for older people on lower incomes. An alternative option would be to implement tax clinics, which have gained prominence in Australia in recent times.⁴⁸

More recently, Inland Revenue has, in response to the OECD's work on Tax Administration 3.0, issued a green paper on tax administration.⁴⁹ This paper considers New Zealand's increasing shift to digital business transactions and operating models and suggests how the tax system might adapt, with the aim of taxation being seamlessly

⁴¹ Sawyer, above n 4, 1. See also James and Sawyer, above n 9.

⁴² Wadesango Newman, N Mwandambira, Charity Mhaka and Ongayi Wadesango, 'Literature Review on the Impact of Tax Knowledge on Tax Compliance among Small Medium Enterprises in a Developing Country' (2018) 22(4) *International Journal of Entrepreneurship*.

⁴³ Richard Bird, 'Taxation and Development: What Have We Learned from Fifty Years of Research?' (2014) 13(4) *Public Finance and Management* 266.

⁴⁴ Newman et al, above n 42.

⁴⁵ Sawyer, above n 4, 15.

⁴⁶ Ibid. Currently, support in New Zealand for those that are digitally challenged is primarily provided by non-government organisations.

⁴⁷ This organisation is now known as 'TaxAid': see <www.taxaid.org.uk>.

⁴⁸ See, eg, Brett Freudenberg, Colin Perryman, Kristin Thomas and Melissa Belle Isle, 'The Griffith Tax Clinic' (2020) 22(2) *Journal of Australian Taxation* 64.

⁴⁹ Inland Revenue, *Tax Administration in a Digital World: An Officials' Issues Paper to Support Future Tax Administration* (February 2022) ('*Tax Administration in a Digital World*').

integrated into the natural systems of businesses.⁵⁰ Notably, Inland Revenue references digital inclusion, and states that:⁵¹

A more digital world works well for those able to embrace those technologies but can create barriers for those not able or wanting to participate in this way. Digital exclusion will arise for those lacking access to digital services and devices, skills in using them, and motivation and trust to operate in digital channels. The Government estimates one in five people lack at least one of the elements to be digitally included. Groups who are less likely to be digitally included in New Zealand are: people living in social housing, individuals with disabilities, Pasifika, Māori, people living in large country towns, older members of society, and those not in the workforce.

In the paper, Inland Revenue acknowledge that in comparison to individuals, micro and small business segments tend to have more complex tax arrangements, and in the past, have been a harder group for Inland Revenue to service.⁵² This is reinforced by findings showing that despite the BT program, 65 per cent of small businesses felt that there was no difference in the ease of meeting their tax responsibilities and in fact, 8 per cent thought that it was harder compared to before the BT program.⁵³ Accordingly, the BT program (and, Tax Administration 3.0 more generally) poses additional hurdles and challenges for small business owners, particularly if they are ‘digitally challenged’.⁵⁴

2.4 Technology used by small businesses

A key part of the OECD’s vision for Tax Administration 3.0 is the natural systems of taxpayers, and therefore, the technology used by taxpayers. In New Zealand, small businesses do not need to prepare general purpose financial reports, and instead, prepare special purpose reports that comply with the relevant tax legislation. In fact, some research has found that small businesses primarily keep accounting records so that they can meet their tax obligations.⁵⁵ This finding is consistent with a survey conducted by Colmar Brunton in 2005,⁵⁶ which found that some small businesses would not keep accounting records if they were not required to for tax purposes.

⁵⁰ Inland Revenue, ‘Public Views Sought on Digitising the Tax System’ (11 February 2022) <<https://www.taxpolicy.ird.govt.nz/news/2022/2022-02-11-digitising-tax-system-consultation>> (accessed 21 May 2026).

⁵¹ Inland Revenue, *Tax Administration in a Digital World*, above n 49, 14 (footnote omitted).

⁵² Ibid 13.

⁵³ Inland Revenue, *2021 Study on the Time and Cost of Doing Business Taxes Incurred by NZ Small Businesses: Survey Undertaken April – June 2021, Customer Insight and Evaluation Summary Report* [2021] (‘2021 Study on the Time and Cost of Doing Business Taxes’). A similar study was undertaken by Inland Revenue in 2024, which concluded that, amongst other things, the proportion of businesses that found it harder to comply with their tax obligations continues to trend upwards. See Inland Revenue, *2024 Study on the Time and Cost of Doing Business Taxes Incurred by NZ Small Businesses: Survey Undertaken April – May 2024, Customer Insight and Evaluation Summary Report* (2024) 18 (‘2024 Study on the Time and Cost of Doing Business Taxes’).

⁵⁴ Jennie Granger and Adrian Sawyer, ‘Digitally Prepared? The Journeys of the Revenue Administrations in Australia and New Zealand’ in Nella Hendriyetti, Chris Evans, Chul Ju Kim and Farhad Taghizadeh-Hesary (eds), *Taxation in the Digital Economy: New Models in Asia and the Pacific* (Routledge and the Asian Development Bank Institute, 2023) 166.

⁵⁵ Sue Yong, ‘Procedural Justice and Audit-Query Experiences of Small Businesses and Tax Agents’ (2012) 7(1) *Journal of the Australasian Tax Teachers Association* 101.

⁵⁶ Colmar Brunton, above n 21.

Accordingly, one of the most important developments in this area is the proliferation of cloud accounting systems. These systems increasingly incorporate artificial intelligence, machine learning and data analytics technology.⁵⁷ Traditionally, accounting systems have relied on manual processes and paper documentation.⁵⁸ These manual processes include data entry and reconciliation, which means that traditional accounting systems are both labour intensive, and prone to human error.⁵⁹ In addition, extensive physical records need to be kept in order to substantiate the outputs (noting that, for tax purposes in New Zealand, records are required to be kept for a minimum of seven years).⁶⁰ From a tax compliance perspective, these manual processes mean that users of traditional accounting systems might have difficulty in ensuring that tax obligations are calculated correctly. In addition, traditional accounting systems are slow to react to changes in tax legislation and are often unable to provide real-time insights and reporting. These weaknesses are noted by the OECD in its vision for Tax Administration 3.0.

In the New Zealand context, a number of cloud accounting systems integrate with Inland Revenue's START system (discussed previously in section 2.2). This integration means that data is transmitted directly from taxpayers' natural systems to Inland Revenue (and vice versa), which can mean fewer human errors, and a reduction in compliance costs. In addition, there are potentially fewer opportunities to evade taxes, given the lack of human intervention.

While there is some literature on the impact that technology (for example, e-filing) has on tax compliance, there is limited literature on the impact of technology on tax literacy.⁶¹ However, Belle Isle, Freudenberg, and Sarker note that literacy, both in terms of business tax, and computer accounting systems, can be linked with higher net income and annual revenue (and that therefore, business owners that are literate have a competitive advantage).⁶² In addition, some research has indicated that too much automation could lead to disengagement,⁶³ and that a lack of personal engagement can encourage people to operate outside of the tax system.⁶⁴

3. RESEARCH METHODOLOGY

Because this research is aimed at understanding whether tax practitioners view technology as impacting the tax literacy levels of small business owners, an interpretivist approach has been adopted. Interpretivism is characterised by the belief

⁵⁷ See, eg, Xero, 'How Your Accounting Practice Can Leverage AI' (19 December 2023) <<https://www.xero.com/nz/accountant-bookkeeper-guides/ai-in-accounting/>> (accessed 21 May 2026).

⁵⁸ Adel M Qatawneh, 'Requirements of AIS in Building Modern Operating Business Environment' (2023) 44(3) *International Journal of Business Information Systems* 422.

⁵⁹ Trang Nguyen, Jengchung Victor Chen and Thu Phuong Ha Nguyen, 'Appropriation of Accounting Information System Use Under the New IFRS: Impacts on Accounting Process Performance' (2021) 58(8) *Information and Management* 103534.

⁶⁰ *Tax Administration Act 1994* (NZ), subpart 3AC.

⁶¹ The author notes, however, that previous literature has considered taxpayer rights in the context of technology. See, eg, John Bevacqua, 'Tax Authority Immunity in a Digital Tax Administration World' (2020) 18(2) *eJournal of Tax Research* 402 and John Bevacqua, 'Digital First – An Australian Taxpayers' Charter Fit for the Digitalisation Revolution' (2023) 38(3) *Australian Tax Forum* 441.

⁶² Belle Isle, Freudenberg and Sarker, 'Does Tax Literacy Matter?', above n 30.

⁶³ Zelenak, above n 8.

⁶⁴ James and Sawyer, above n 9.

that there are differences between people and objects in natural and social science.⁶⁵ To this end, interpretivism assumes that social reality is socially constructed and understood through the meanings that individuals assign to their experiences. Accordingly, an interpretivist paradigm allows tax practitioners to share their perceptions and experiences as they relate to this research. This research also adopts a qualitative descriptive approach, as articulated by Sandelowski.⁶⁶ A qualitative descriptive approach is appropriate for research (such as this) that seeks to summarise participants' perceptions and experiences in a way that remains close to the data and uses language that reflects participants' own accounts.

In line with the interpretivist paradigm, and the qualitative descriptive approach, this research utilises semi-structured interviews with tax practitioners. Tax practitioners have been selected as a sample due to the role that they play in respect of tax literacy. This role can be modelled using knowledge management theory, which was adopted by Hasseldine, Holland and van der Rijt for research that sought to explore the relationships between the United Kingdom's tax agency (HM Revenue and Customs (HMRC)), corporate taxpayers and accounting firms.⁶⁷ Knowledge management theory centres around the idea that knowledge is an economic asset, and in the transaction of that asset, several players are active.⁶⁸ These players are knowledge buyers, sellers and brokers, although 'an individual can perform all three roles in a single day and sometimes plays more than one role simultaneously'.⁶⁹

In Hasseldine, Holland and van der Rijt's research, the authors viewed HMRC as the knowledge seller, because they take a lead role in developing, and communicating new tax legislation. Corporate taxpayers 'then seek, either by compulsion (for routine compliance) or volition (for tax planning and avoidance), knowledge about new tax legislation'.⁷⁰ Accordingly, they are viewed as knowledge buyers. Finally, accounting firms are viewed as knowledge brokers because 'they operate as *intermediaries* between corporate taxpayers (knowledge buyers) and HMRC (knowledge seller), a role that can also be described as "gate keeping" or "boundary spanning"'.⁷¹

In New Zealand, Inland Revenue is the knowledge seller; while Parliament is ultimately responsible for enacting legislation and therefore, knowledge creation, Inland Revenue has a lead role in the development and communication of new tax legislation. Small businesses, similar to corporate taxpayers, seek knowledge about tax legislation for routine compliance, and to a lesser degree, for tax planning and avoidance. Accordingly, tax practitioners operate as intermediaries between small businesses and Inland

⁶⁵ Emma Bell, Alan Bryman and Bill Harley, *Business Research Methods* (Oxford University Press, 6th ed, 2022).

⁶⁶ Margarete Sandelowski, 'Whatever Happened to Qualitative Description?' (2000) 23(4) *Research in Nursing and Health* 334; Margarete Sandelowski, 'What's in a Name? Qualitative Description Revisited' (2010) 33(1) *Research in Nursing and Health* 77.

⁶⁷ John Hasseldine, Kevin Holland and Pernill GA van der Rijt, 'The Management of Tax Knowledge' in Lynne Oats (ed), *Taxation: A Fieldwork Research Handbook* (Routledge, 2012) 145.

⁶⁸ Thomas H Davenport and Laurence Prusak, *Working Knowledge: How Organizations Manage What They Know* (Harvard Business School Press, 1998).

⁶⁹ *Ibid* 27.

⁷⁰ John Hasseldine, Kevin Holland and Pernill van der Rijt, 'The Market for Corporate Tax Knowledge' (2011) 22(1) *Critical Perspectives on Accounting* 39, 41.

⁷¹ *Ibid* citing Chun Wei Choo, *The Knowing Organization: How Organizations Use Information to Construct Meaning, Create Knowledge, and Make Decisions* (Oxford University Press, 1998) and OECD, *Study into the Role of Tax Intermediaries* (OECD Publishing, 2008).

Revenue and are therefore well placed to provide views on the tax literacy levels of small business owners. Inland Revenue's most recent annual report states that there are nearly 5,600 tax agents who support approximately 1.6 million clients and file close to 2 million tax returns each year.⁷²

The main research question addressed in this research is:

RQ 1: From the perspective of tax practitioners, how has technology impacted the tax literacy levels of small business owners, if at all?

The research sub-questions addressed in this research are:

RQ 1A: From the perspective of tax practitioners, how has the technology that small business owners use impacted their tax literacy levels, if at all?

RQ 1B: From the perspective of tax practitioners, how has Inland Revenue's BT program impacted the tax literacy levels of small business owners, if at all?

3.1 Semi-structured interviews

This research utilises semi-structured interviews of tax practitioners to gather data. These interviews were conducted from November 2023 to June 2024. Interviews were considered by the author to be the most appropriate method of gathering data because they allowed tax practitioners to give their own perspectives on small business owners and tax literacy. That is, interviews as a methodology allow rich data to be collected from people in various roles and situations.⁷³ Alternative methods of gathering data such as a questionnaire would not have resulted in rich data being collected from tax practitioners. In addition, interviews provide the opportunity for follow-up questions and additional inquiry, meaning that further insights were gleaned.

3.2 Interview guide development

The author circulated an interview guide to tax practitioners ahead of the interviews. The interview guide was aimed at giving interviewees a chance to reflect on the questions and give a considered response. From the author's perspective, the use of an interview guide also ensured that no topics or areas were omitted. The interview guide had four main headings, being: 'Small businesses', 'Small business owners', 'Tax literacy' and 'Tax education'. The questions under the heading 'Tax literacy' are the focus of this article. Notwithstanding, the interview guide was not formal or rigidly structured. Rather, it was flexible, and questions were not asked in a set order. In addition, the interview guide was fluid as it was updated as interviews progressed. The interview guide was also piloted with an experienced tax practitioner and the responses from this were used to improve the interview guide and provide additional areas for exploration.

3.3 Sample selection

For the purpose of this research, a broad definition of tax practitioners has been adopted. That is, tax practitioners are defined to be tax preparers, tax accountants, tax lawyers and tax agents, provided that they have experience working with small businesses and

⁷² Inland Revenue, *Annual Report 2024-25*, above n 39.

⁷³ Bell, Bryman and Harley, above n 65.

their owners. Tax practitioners were recruited with the assistance of John Cuthbertson (New Zealand Tax Leader of Chartered Accountants Australia and New Zealand (CA ANZ)), Lindsay Ng (Senior Tax Advocate at CA ANZ) and Rick Jones (Regional Head of Certified Practising Accountants (CPA) Australia, as he was then). Individual emails were sent to a potential list of interviewees, as identified by each of these people. Responses were received from five practitioners, all of whom agreed to participate in the research. Accordingly, the author sought to identify and recruit further participants. This was predominately done via Google searches with key words aimed at filtering tax practitioners who had experience with small businesses and their owners. This resulted in five more tax practitioners agreeing to participate in the research. Accordingly, the sample of tax practitioners included five tax practitioners recruited through ‘snowball’ sampling.⁷⁴ Snowball sampling is advantageous in that it is a low-cost solution allowing participants to be found easily and quickly, especially from a specific population.⁷⁵ However, snowball sampling can lead to various types of sampling bias and can make generalisation difficult.⁷⁶ These limitations were overcome by the use of purposive sampling to recruit the other five participants.

A total of 10 tax practitioners were interviewed in their professional capacity. These tax practitioners were located in a range of locations throughout New Zealand, including Auckland, Christchurch, Dunedin, Hamilton, Invercargill, and regional New Zealand. The tax practitioners predominately worked out of mid-tier firms and small accounting firms, meaning that a number of different perspectives were provided. After 10 responses, saturation of information occurred, and in the author’s view, it was unlikely that additional responses would have resulted in new information being gleaned. Further detail on the 10 tax practitioners is provided in Table 1.

⁷⁴ Alistair Geddes, Charlie Parker and Sam Scott, ‘When the Snowball Fails to Roll and the Use of ‘Horizontal’ Networking in Qualitative Social Research’ (2018) 21(3) *International Journal of Social Research Methodology* 347.

⁷⁵ Ibid.

⁷⁶ Ibid.

Table 1: Tax Practitioners

Pseudonym	Location	Position	Professional Membership	Size of Firm	Experience	Gender
Tax Practitioner A	Auckland	Director	CPA	Sole practitioner	12 years	Male
Tax Practitioner B	Christchurch	Director	CA ANZ	Small	24 years	Male
Tax Practitioner C	Invercargill	Principal	CA ANZ	Medium	28 years	Male
Tax Practitioner D	Christchurch	Director	CA ANZ	Sole practitioner	19 years	Female
Tax Practitioner E	Regional New Zealand	Director	CA ANZ	Sole practitioner	33 years	Male
Tax Practitioner F	Regional New Zealand	Director	CPA	Small	28 years	Female
Tax Practitioner G	Hamilton	Director	CA ANZ	Medium	19 years	Male
Tax Practitioner H	Dunedin	Partner	CA ANZ	Medium	30 years	Male
Tax Practitioner I	Dunedin	Principal	CA ANZ	Small	23 years	Male
Tax Practitioner J	Auckland	Manager	CA ANZ	Medium	14 years	Female

3.4 Data collection procedures

A consent form was issued to all participants, and a signed copy was returned to the author before each respective interview. Interviewees were given a chance to ask any questions before the interview commenced and were free to withdraw from the research at any time. Each interview was recorded using the recording function in Google Meet / Microsoft Teams and where possible, a transcript was automatically generated. This was checked by the author against the recording of the interview (and amended if necessary), and a copy was provided to the interviewee within two weeks of each particular interview. Interviewees were then provided with an opportunity to make any amendments to the transcript. Alongside recording, brief notes were taken by the author throughout the interviews.

Interviews ranged from 40 to 70 minutes in length. While virtual interviews can have disadvantages (eg, technical challenges), the use of these negated many of the disadvantages associated with phone interviews (eg, the inability to gauge body language), and given the geographical spread of the interviewees, were more practical and cost effective than in-person interviews.

3.5 Data analysis

The author analysed data collected from the semi-structured interviews by following the six-phase process set out by Braun and Clarke.⁷⁷ Given the dearth of previous literature in this area, and, given that this research is exploratory in nature, an inductive approach

⁷⁷ Virginia Braun and Victoria Clarke, 'Using Thematic Analysis in Psychology' (2006) 3(2) *Qualitative Research in Psychology* 77. See also Lorelli S Nowell, Jill M Norris, Deborah E White and Nancy J Moules, 'Thematic Analysis: Striving to Meet the Trustworthiness Criteria' (2017) 16 *International Journal of Qualitative Methods* 1. Thematic analysis was undertaken with a view to meeting the trustworthiness criteria outlined in Yvonna S Lincoln and Egon G Guba, *Naturalistic Inquiry* (Sage, 1985).

(ie, data-driven approach) was used for data analysis. First, the author familiarised themselves with the data by reviewing the transcripts (and amending these where necessary). Throughout this phase, the author noted down initial ideas and thoughts. Next, NVivo, a qualitative data analysis software package, was used to generate initial codes. Care was taken to ensure that each data item was given equal attention during this process. These codes were subsequently collated into various themes, and these themes were then reviewed and refined by the author. Themes were checked against each other, as well as the original transcripts from interviews. A thematic map was generated by NVivo that showed the themes and how they related to one another. Finally, the data within these themes was analysed with a view to identifying areas of consensus and disagreement amongst the tax practitioners interviewed.

4. RESULTS

This section introduces the findings from the interviews with tax practitioners. This section will provide a basis for section 5, which will set out further discussion and analysis of the findings.

4.1 Technology used by small businesses

As a starting point, tax practitioners were asked what technology (and therefore, what the natural systems were) in the context of small businesses. Most tax practitioners indicated that the natural systems used by their small business clients were cloud accounting systems (generally, with the adoption of cloud accounting systems being instigated by the tax practitioners themselves), with the most commonly mentioned cloud accounting system being Xero:

A lot of our clients were still using BankLink and that was because it's a legacy product. It still worked. It was cheap. We didn't have to move but it's an end of life product. So we've just holus bolus moved everyone off BankLink now and put them on Xero. [Tax Practitioner G]

It was a Hubdocs, Xero, and with farmers, Figured combination. And that's what we were pushing our clients towards. [Tax Practitioner E]

For all our clients, we'd get them set up on Xero. We would give them training to be able to reconcile their accounts, invoices reconciling. Or if they really struggle with that, we would partner them up with a bookkeeper. [Tax Practitioner B]

But I would think 98% of our clients are on Xero or MYOB or something similar. [Tax Practitioner H]

Tax Practitioner J noted that some small businesses engaged the services of an alternative system such as Hnry, which in their view, is not a cloud accounting system, but rather, is a tax agent (and therefore, not a natural system):

I can use Hnry instead of Xero, not realising that Hnry's actually a tax agent. So it's kind of like a modern-day version of the old people that used to stand in the mall and be like, we'll do your tax return for free, it's that but in an online system for sole traders and stuff. [Tax Practitioner J]

Tax Practitioner D was of the view that the adoption of cloud accounting systems by small businesses was dependent on the age of the owners of those small businesses:

I'm probably not a good one because I've got all these elderly clients, right? Who are like, when I do the cloud, like what is this thing? You know, for my young fee base, I would say they're all about apps and stuff. [Tax Practitioner D]

Tax Practitioner J noted that the price point of cloud accounting systems had decreased in recent years, which removed a barrier to adoption by small businesses:

So where it used to be you'd be paying at least a hundred bucks a month to get onto a decent system. Now, you can start at sort of, twenty dollars or something. So that price point has definitely removed a barrier for a lot of small businesses. [Tax Practitioner J]

Finally, Tax Practitioner A noted that while their accounting practice used cloud accounting systems (namely, Xero), and that their clients were able to access this platform, in their experience, most small business owners did not do so:

Yeah, it has, but the thing that I would note there is you're asking what do we use? The clients often use nothing. So you know they're paying \$70 plus a month for access to a fairly generic but useful financial software system which they don't interact with at all. So the vast majority of my clients will go into their internet banking once a day and see if someone's paid them so they can meet the wage bill. [Tax Practitioner A]

Tax Practitioner A went on to give the following example:

I mean it's astonishing. Obviously, we do, gosh over a hundred GST returns every two months and well in excess of 80% are not coded. The bank feeds are there but nobody's bothered to go and code the lines. [Tax Practitioner A]

4.2 Record keeping and small businesses

All tax practitioners were of the view that, if used by small businesses, technology and, in particular, cloud accounting systems, had improved the record keeping practices of small businesses:

Yeah, I think people are getting better at it, it used to be asking them to hold on to receipts and invoices all the time. But now with digital means of doing that with the likes of Xero, where you take photos of your receipts, I think clients just find it find it a lot easier. [Tax Practitioner B]

I think technology has enabled them to be an awful lot better. So, the likes of Xero and your Hubdocs and your Dext and all that sort of stuff, where you can take a photo when you're out and lots of stuff is now coming in via email and it's not hard copies, so that naturally helps with retaining information. So I think technology has played a huge part in making that better. [Tax Practitioner F]

I think generally pretty good. Most people know they need to obviously keep their receipts. We thankfully mostly moved away from the old shoebox approach now, so the digitalising of invoicing has really helped, most people

get their invoices on PDF now, so that's why we've obviously started using Hubdoc significantly. [Tax Practitioner G]

Tax Practitioner I, however, considered that some small business owners still had poor record keeping practices:

Some are awesome. Some are terrible. Absolutely terrible. I've got a client where I'd be quite happy to receive a shoebox. That would be awesome. Instead of no records at all. [Tax Practitioner I]

Tax Practitioner G noted that technology was also used within their practice to digitise the records kept by small businesses, if they were not already in a digital format:

We've still got a number, probably more our agri clients who would still bring us a shoe box or a folder of bits of paper, but now we just scan and stick them in Hubdoc anyway. [Tax Practitioner G]

4.3 The impact of technology on the tax literacy levels of small business owners

When asked whether technology, and in particular, cloud accounting systems, increased the tax literacy levels of small business owners, all tax practitioners were of the view that while it did provide other advantages, it did not increase the tax literacy levels of small business owners:

No, I don't think so. I think it's given those businesses a way to speed up the process of getting their information into a system. In terms of from a tax literacy perspective no, it hasn't really improved that I would have said. [Tax Practitioner C]

No. No, if anything it's probably dumbed it down because they think it's got it right. [Tax Practitioner F]

The software has made our lives easier, but it's actually reduced people's literacy. [Tax Practitioner I]

In particular, tax practitioners considered that technology, and in particular, cloud accounting systems, have decreased the tax literacy levels of small business owners for a variety of reasons:

I think people have probably become reliant on the prompt. And if they've miscoded it wrong last month, they'll miscode it wrong this month. So it actually probably doubles down on the issue. [Tax Practitioner G]

People have become less tax literate because they don't actually have to do anything. If you were using Xero and your GST return is being prepared in Xero, which you would, you don't need to do the calculation to work out what the GST proportion is. [Tax Practitioner I]

Yeah, actually, it's probably, if anything, created more risk that the literacy is going down. And then I think that is possibly a downfall of technology is that yeah, it's just we've put a number and it spits something out. We accept that it's got to be right and so we aren't actually applying logic to it as we're going through it. [Tax Practitioner C]

You know, so it's almost counter, like it stops the financial literacy because they're just, oh well, if Xero says this, I'll just click okay. [Tax Practitioner B]

In fact, Tax Practitioner I was of the view that, in using cloud accounting systems, small businesses owners were making mistakes that would not have occurred in their absence:

They were just like, well, the software did it, must be right. Yeah, and then you go back and you go, well, that figure doesn't reconcile with your actual bank balance. It's clearly not right. But just zero appreciation of that and understanding that was not correct. When you did your return on paper, you wouldn't have made that mistake. [Tax Practitioner I]

Similarly, Tax Practitioner D noted that the data inputted into the cloud accounting systems by small business owners was determinative of the outputs:

I'm very mindful that it is, as all software is, it's a garbage in, garbage out scenario, right? So it's only as good as your attention to detail. [Tax Practitioner D]

Some tax practitioners mentioned that some small business owners were not competent using technology generally:

Like when cheques were taken away, people were paying their GST and stuff by cheque. We've still got a couple of people who come into our office and ask for their little barcode thing for their GST returns so they can turn up to the bank with that. And even like not related to tax specifically, but like Xero changed the bank feeds for BNZ last year and you had to log in using your internet banking login and do it that way. And that flushed out a whole bunch of people who didn't have internet banking at all. [Tax Practitioner D]

There's definitely issues with the fact that some people do not have access to the online world basically. So we've got a very small group of clients where they don't have email, they don't do online, they do not have cell phone coverage or internet where they live. It's a very small group and those people would be the people who would otherwise use IRD's phone option. But the reality is the phone option is not great anymore because the time that you have to wait to have a call answered or get a call back just doesn't work for most people. [Tax Practitioner I]

Finally, Tax Practitioner B noted that, in their experience, there appeared to be a trend of small business owners using artificial intelligence to obtain tax advice:

People starting to use more AI for, I mean, I guess even just general search engines as well. Like, you know, if I've got a complex, not complex, but if I've got a tax question, then even I'm thinking, oh, I wonder what this, you know, I'd Google and look at this and see what pops up and sort of help inform a decision there as well. [Tax Practitioner B]

4.4 The impact of Inland Revenue's BT program on the tax literacy levels of small business owners

The majority of tax practitioners did not think that Inland Revenue's BT program had improved the tax literacy levels of small business owners:

So the majority of people probably don't even have a myIR. And business owners that do have a myIR would only use it for filing their PAYE and GST via whatever accounting software they're using. I don't think they're actively participating with the platform. And if IRD messaged them I don't think they'd read it or respond to it. [Tax Practitioner F]

I guess the good thing out of that whole Business Transformation project that IRD did is that everyone, if they want, has access to their information at IRD. And for those people who feel that they're sufficiently capable of doing that, then that's great. [Tax Practitioner I]

I think the technology aspects of the software definitely has; I don't think the department's BT project has greatly. Other than the fact, people are more connected through myIR then obviously they were previously and some choose to engage on that basis others choose not to. Again, I think there's going to be some philosophical challenges there for both Revenue and for the profession around where those lines sit and actually, what the role of the department is versus what the role of intermediaries is. [Tax Practitioner H]

However, Tax Practitioner J considered that small businesses generally had a higher level of engagement with Inland Revenue subsequent to the completion of the BT program and the implementation of the START system:

[W]e find a lot more clients have set up their own myIR accounts and they do have access to all that stuff themselves where we previously might have been involved in helping them set up, payment arrangements and things like that. They can do it all themselves, which is really good because anytime we touch something, we charge them for it. [Tax Practitioner J]

Tax Practitioner J also stated that, in their opinion, Inland Revenue's START system was confusing for people who did not have a tax background:

I think a lot of it is, and myIR definitely makes things like filing tax returns and things and much easier to do, I still think, I mean we file tax returns through a system. So it's a little bit different but every now and then when you pop into myIR to step through a tax return there are a couple of things where we sit there and go that doesn't make sense. If I was reading this as a lay person, I wouldn't understand not to put the number in that box and it needs to go somewhere else. [Tax Practitioner J]

Finally, Tax Practitioner G noted that Inland Revenue's START system was not without issues, and in particular, how it calculated use-of-money interest:

Yeah, IRD's system couldn't deal with it. I had a massive running battle with them over the way that use-of-money interest was being calculated and they disagreed I said, no, no, this is what I'm seeing this I can show you the calculations. [Tax Practitioner G]

5. ANALYSIS OF INTERVIEW FINDINGS

5.1 Accounting systems used by small businesses

Tax practitioners were generally of the view that most small businesses had adopted cloud accounting systems (although, see discussion below on the meaning of adoption), which is broadly consistent with research that shows that many small businesses have adopted cloud accounting systems in New Zealand.⁷⁸ Accordingly, tax practitioners considered that the natural systems of small businesses are cloud accounting systems. This finding is important in the context of the Tax Administration 3.0, which is premised on tax administration systems (such as Inland Revenue's BT program and START) interfacing with the natural systems of taxpayers.

Tax practitioners indicated that the adoption of cloud accounting systems was largely driven by themselves. In other words, the adoption of cloud accounting systems was not instigated by small business owners. The reason for this finding is unclear, but the author suggests that these results can be explained by low tax literacy levels of small business owners on the basis that small business owners are unlikely to be aware of various accounting systems and the advantages that cloud accounting systems can potentially offer. To this end, small business owners are knowledge buyers, and in this context, tax practitioners are the knowledge sellers (as opposed to a more traditional role as a knowledge broker), given their experience with various accounting systems. Accordingly, the role of tax practitioners appears to be changing in response to technology in that their scope is no longer limited to just ensuring that their clients comply with tax obligations, but rather, it also extends to recommending (and, in some cases, implementing) the natural systems used by their clients. While the motivations for tax practitioners for doing so were unclear, it could be that it makes their work easier, and allows resources to instead be spent on tasks that add value for their clients.

Tax practitioners did not consider that there was a link between demographic factors and the uptake of cloud accounting systems by small businesses. This can potentially be explained by the finding that tax practitioners were responsible for small businesses adopting cloud accounting systems because, presumably, cloud accounting systems were suggested to small business clients by tax practitioners regardless of demographic factors (again, see discussion below on the meaning of adoption). Notwithstanding, Tax Practitioner D considered that younger small business owners were more likely to adopt cloud accounting systems on that the basis that they were likely to be more familiar with technology (such as apps) generally. However, this view was not shared by other tax practitioners, contrary to the author's initial expectations.

Tax Practitioner J stated that, in their view, a reduction in the cost of cloud accounting systems (which are used enable tax compliance) has led to increased adoption by small businesses. Previous research has shown that, in the New Zealand context, the main motivators for small businesses adopting cloud accounting systems are ease of use, security, availability, and performance.⁷⁹ Notably, this research also found that cost of

⁷⁸ See, eg, New Zealand Institute of Economic Research, *Economic Potential of Cloud-Based Business Tools: NZIER Report to Xero* (March 2020).

⁷⁹ Trevor Nesbit and Daniel Sidabutar, 'Adoption of Cloud-based Accounting by SMEs: Revisiting the Benefits, Risks and Motivations: A New Zealand Context Exploratory Study' (2022) 4(8) *Acta Scientifica Computer Sciences* 82.

adopting cloud accounting systems was not a significant issue for small businesses. Accordingly, this finding appears to be inconsistent with previous research.

As noted earlier, the most commonly mentioned cloud accounting system by tax practitioners (in the context of small businesses) was Xero. This finding is consistent with research conducted by the New Zealand Institute of Economic Research in 2020 which showed that, at that time, Xero was the most commonly used cloud accounting system in New Zealand (and, particularly, the most commonly used cloud accounting system for small businesses).⁸⁰ It is likely that even more small businesses in New Zealand have adopted Xero, given the growth that Xero has seen since 2020.⁸¹ For the sake of completeness, it is noted that two tax practitioners also mentioned MYOB as commonly being used by small businesses.

Tax Practitioner A also noted that while all their small business clients were set up on a cloud accounting system (namely, Xero), most small business owners did not actively engage with the platform and perform tasks such as reconciling bank accounts. To this end, it appears that, even though tax practitioners might consider that their small business clients have adopted a cloud accounting system, there are varying degrees of adoption. In other words, while small businesses might have access to a cloud accounting system, it seems that many small business owners do not actually utilise this platform. Rather, the cloud accounting system solely allows tax practitioners to perform tasks that they would otherwise undertake (such as compiling financial statements which feed into tax returns) in a more efficient manner. This finding also suggests that some small business owners outsource all tax compliance functions to a tax practitioner, and, that tax literacy is potentially of less value for this group.

In the light of the above, it appears that there is a difference between the adoption of cloud accounting systems, and the use of cloud accounting systems, by small businesses and their owners. Many of the advantages of cloud accounting systems outlined in previous research will only be realised if the owners of small businesses actually use cloud accounting systems, as opposed to just having a tax practitioner that uses a cloud accounting system to perform a task that they would otherwise undertake (with, perhaps, the exception of a reduction in costs if these savings are passed on to small businesses by tax practitioners).

Some tax practitioners considered that a key part of their role was training and educating clients, which is consistent with acting as knowledge broker. This finding is also consistent with previous research by Sonnerfeldt, which discusses the role of the tax practitioner (and tax knowledge) in the digital era.⁸² Specifically, tax practitioners are seemingly providing less tax advice in respect of tax compliance (because, to a degree, this is now built into the natural systems of taxpayers), and more advice on how to use accounting software and input data accurately.

⁸⁰ New Zealand Institute of Economic Research, above n 78.

⁸¹ Sukhinder Singh Cassidy, 'Xero's H1 FY24 Financial Results: Evolving Xero to Deliver on Our Global Aspirations', *Xero* (8 November 2023) <<https://blog.xero.com/nz/news-events/xero-half-year-fy24-financial-results/>> (accessed 21 May 2026).

⁸² Sonnerfeldt, above n 33.

5.2 Record keeping and small businesses

All tax practitioners were of the view that technology, and in particular, cloud accounting systems, have improved the record keeping practices of small businesses. Tax practitioners specifically referred to the ability to take pictures of invoices and receipts and load these into cloud accounting systems and also noted that invoices and receipts are now typically issued in a digital format. The Ministry of Business, Innovation and Employment (MBIE) has, the last few years, been working on a campaign on the adoption of 'e-invoicing' and based on results from the interviews with tax practitioners, it appears that this campaign has been successful.⁸³

However, Tax Practitioner I noted that the record keeping practices of some small businesses was still poor, and that in some instances, they would be happy to receive any information at all. This finding is consistent with those detailed above, namely, that small businesses need to be actively engaging with cloud accounting systems to gain the associated benefits (including better record keeping).

For the sake of completeness, it is also worth noting that there have been changes to tax invoices for Goods and Services Tax (GST) purposes in the last few years. These changes, which apply from 1 April 2023, replaced the requirement to use tax invoices with a more general requirement to provide and keep certain records known as taxable supply information.⁸⁴ Broadly, these changes are aimed at ensuring compliance with the 'e-invoicing' initiative and providing more flexibility for businesses. Only one tax practitioner, Tax Practitioner G, commented on these changes. Specifically, Tax Practitioner G was of the view that, practically, these changes did not have any impact on the records kept by small businesses. Tax Practitioner G considered that these changes were inconsequential and that they have largely been ignored by both tax practitioners and small businesses alike.

Finally, Tax Practitioner G also noted that their accounting practice used technology to digitise records if they were not already in a digital format. This finding is consistent with the research that shows that accounting practices in New Zealand have relatively high adoption rates of technology, including cloud accounting systems.⁸⁵

5.3 The impact of technology on the tax literacy levels of small business owners

Despite all tax practitioners being of the view that technology, and in particular, cloud accounting systems, had advantages, increasing tax literacy was not seen as one of these advantages. Rather, all tax practitioners were of the view that cloud accounting software had led to a reduction in tax literacy for small business owners. Tax Practitioner E noted that if cloud accounting systems were used by small businesses, then the automation of manual tasks could free up small business owners to undertake other tasks that added more value to their businesses. This view was shared by Tax Practitioner C, who considered that cloud accounting systems could save time by automating the process of

⁸³ eInvoicing, Ministry of Business, Innovation and Employment, 'Get Your Business eInvoicing Today' (last updated 19 February 2026) <<https://www.einvoicing.govt.nz/get-set-up/get-your-business-einvoicing>> (accessed 21 May 2026).

⁸⁴ Inland Revenue, 'Taxable Supply Information for GST' (last updated 27 November 2024) <<https://www.ird.govt.nz/gst/tax-invoices-for-gst>> (accessed 21 May 2026).

⁸⁵ Xinding Ma, 'The Adoption of Cloud Computing for Small and Medium Accounting Firms' (MCom Thesis, University of Canterbury, 2015).

importing information. However, a number of tax practitioners indicated that automation also meant that small business owners were disconnected from their tax obligations (and potentially the financial performance of their business more generally) because they did not need to have as much involvement. Automation was also seen as resulting in unintentional non-compliance (and therefore, negatively impacting disciplinary knowledge), because if a mistake had been made in determining the classification of a transaction (say for, example, whether a transaction was capital or revenue in nature), then this treatment could be inadvertently repeated in a subsequent period. To this end, Tax Practitioner I was of the view that cloud accounting systems could result in mistakes being made by small business owners that would not have otherwise occurred, and, that small business owners would not have sufficient tax literacy (and specifically, disciplinary knowledge) to identify these mistakes. An example of this was the preparation of a GST return, which can be automatically prepared by cloud accounting systems and does not require additional manual input. Tax Practitioner I indicated that some small business owners would blindly accept the net GST payable, or receivable (and therefore the GST treatment of the underlying transactions) calculated by the cloud accounting system without further investigation. Given that a number of cloud accounting systems (including Xero) integrate with START, it is concerning that small businesses could potentially be transmitting information to Inland Revenue and therefore taking incorrect tax positions based on the (incorrect) assumption that these tax positions are correct.⁸⁶

As discussed above, some cloud accounting systems utilise artificial intelligence to prompt users to classify transactions and therefore take tax positions. Some tax practitioners were of the view that these prompts were unhelpful because they gave small business owners the impression that, in accepting these prompts, they had taken a correct tax position. One possible solution to this might be for cloud accounting systems to include a warning to users to check the tax treatment of a transaction, and if they do not know the correct tax treatment, that they seek advice from a tax practitioner. A more holistic solution is to increase the tax literacy (and, specifically, the disciplinary knowledge) of users, so that they can identify issues and errors, and, even if they do not know the correct tax treatment, that they (as information buyers) have enough awareness to know that they need to engage the services of a tax practitioner (as an information broker), or to contact Inland Revenue (as the information seller).⁸⁷

Some tax practitioners also mentioned that some small business owners were not digitally literate and therefore were not competent using technology such as the internet, email, online banking and cell phones. This finding means that, for these people, there are a number of barriers present in today's digital world, and particularly in regard to the tax system, given the recent BT program and implementation of the START system (discussed further in section 5.4). In this context, small business owners are still information buyers.

⁸⁶ The penalties regime and use-of-money interest mean that taking an incorrect tax position can result in a significant financial impact for small businesses.

⁸⁷ There is a philosophical question as to whether Inland Revenue, as the revenue authority, should be assisting taxpayers to take a tax position, given that they also develop tax policy and prosecute taxpayers for non-compliance. To this end, one tax practitioner drew an analogy between this situation and 'asking the police before you commit a crime'.

Finally, Tax Practitioner B observed that there was a trend of small business owners using artificial intelligence to obtain tax advice, and therefore, as an information broker. This trend is concerning, especially if small business owners do not have the appropriate level of tax literacy (and, in particular, disciplinary knowledge) to know the right questions to ask, or what facts are important (or not important) to their particular scenario. In addition, it remains to be seen as to whether artificial intelligence has reached a point where it is capable of providing accurate tax advice, even if the right questions are asked of it.

While other benefits are gained from the use of cloud accounting systems, tax practitioners indicated that cloud accounting systems have a negative impact on the tax literacy of small business owners, which, for the reasons stated above, is particularly important for this demographic. In other words, there appears to be a trade-off between the benefits gained from the use of cloud accounting systems, and the tax literacy levels of small business owners. Tax practitioners indicated that these benefits outweighed the reduction in the tax literacy levels of small business owners, however, further work should be undertaken (for example, education) to mitigate the detrimental impact of technology on tax literacy.

5.4 The impact of Inland Revenue's BT program on the tax literacy levels of small business owners

Most tax practitioners did not think that Inland Revenue's BT program had positively impacted the tax literacy levels of small business owners overall, despite the BT program (and the implementation of the START system) making online access easier and more information available through myIR (and therefore, potentially increasing procedural knowledge). Notwithstanding this, improving tax literacy was not a stated purpose of the BT program. In particular, Tax Practitioner F indicated that, in their experience, the vast majority of small businesses did not have a myIR login, but if they did, that they did not log in and actively participate with the platform. This finding is reinforced by research by Inland Revenue which shows that subsequent to the BT program, 65 per cent of small businesses felt that there was no difference in the ease of meeting their tax responsibilities, and in fact, 8 per cent thought that it was harder compared to before the BT program.⁸⁸ Tax Practitioners I and H had similar views and noted that while myIR had the potential to result in increased procedural knowledge via access to information availability and connection between small businesses and Inland Revenue, this benefit would only be realised if small business owners were capable of engaging with the platform and, small business owners actually did so. This finding is again consistent with research conducted with Inland Revenue that indicates that the BT program has only had a limited impact for small businesses. To this end, further resources should be deployed to upskill people (and especially small business owners) in terms of digital literacy.

Only one tax practitioner, Tax Practitioner J, had a different view. In particular, Tax Practitioner J considered that generally, small businesses had a higher level of engagement with Inland Revenue subsequent to the completion of the BT program and the implementation of the START system. Tax Practitioner J noted that, after the completion of the BT program and the implementation of the START system, more clients have set up myIR accounts, and that more clients were engaging with Inland

⁸⁸ Inland Revenue, *2021 Study on the Time and Cost of Doing Business Taxes*, above n 53, 5.

Revenue through myIR to organise things such as instalment arrangements. The reasons for this inconsistency are unclear. However, Tax Practitioner J did note that the START system could be confusing to navigate and to enter data in, especially for people that did not have a tax background. This finding is contrary to the stated goals of the BT program. Given that users of the START system are, in some instances, effectively taking tax positions (which, if incorrect, could result in exposure to use-of-money interest and/or penalties), this finding is concerning. Accordingly, it is suggested that further work is done to make the START system more accessible for those without a tax background.

Finally, Tax Practitioner G noted that the START system, in some instances, resulted in outcomes that were inconsistent with tax legislation. Tax Practitioner G used an example of the calculation of use-of-money interest, which, presumably, is automated within the START system. This automation resulted in an incorrect output, so accordingly, there needs to be sufficient checks and balances in place to ensure that this outcome does not occur.

Overall, it is clear that the BT program and the START system can provide benefits to small business owners. However, it appears that these benefits, like those associated with cloud accounting systems, come at the expense of tax literacy. On this basis, further research should be undertaken to determine the benefits of the BT program and the START system, and the trade-off between these benefits and tax literacy. In addition, further initiatives should be implemented that are aimed at increasing the tax literacy (and also, the digital literacy) of small business owners so that they can make the most out of these developments in technology.

6. CONCLUSIONS

In the light of the discussion in section 5 above, a number of conclusions can be drawn. First, the natural systems of small businesses appear to be cloud accounting systems (the most common of these being Xero), although it appears that not all small business owners are accessing and engaging with these cloud accounting systems, and therefore not receiving the various advantages that cloud accounting systems can offer. To this end, the role of tax practitioners has changed as it also involves educating and training small businesses as to the use of cloud accounting systems.

Almost all tax practitioners were of the view that technology, and in particular, cloud accounting systems, have improved the record keeping practices of small businesses. However, one tax practitioner did not think that record keeping practices had improved, which can be explained by the finding that while small business owners have access to cloud systems, not all small business owners are accessing and engaging with these cloud accounting systems, potentially due to low levels of digital knowledge.

Tax practitioners considered that cloud accounting systems were beneficial for small business owners, however, increases in tax literacy (and specifically, disciplinary knowledge) was not one of these benefits. Despite this trade-off, tax practitioners indicated that these benefits outweighed the reduction in the tax literacy levels of small business owners, however, further work should be undertaken (for example, education) to mitigate the detrimental impact of technology on tax literacy. Similarly, while Inland Revenue's BT program and the START system can provide benefits to small business owners, tax practitioners were of the view that these benefits come at the expense of tax literacy. On this basis, further research should be undertaken to determine the benefits

of the BT program and the START system, and the trade-off between these benefits and tax literacy. In addition, further initiatives should be implemented that are aimed at increasing the tax literacy (and also, the digital literacy) of small business owners so that they can make the most out of these developments in technology.

A limitation of this article is the lack of input from other stakeholders, and in particular small business owners themselves. To this end, there is scope for a wide-scale survey of small business owners to test results, which the author plans to subsequently undertake. In addition, input from the revenue authority, Inland Revenue, might also provide valuable insights. Future research could also consider how the tax literacy levels of small business owners could be improved. Another limitation of this article arises from the research method, being semi-structured interviews. Semi-structured interviews have some disadvantages, including a lack of validity and potential for observer bias. However, given the exploratory nature of this research, alternative methods of gathering data would not have been appropriate.