Journal of Infrastructure, Policy and Development 2024, 8(8), 5201.
https://doi.org/10.24294/jipd.v8i8.5201

Article

An evaluation of book-tax differences of South African firms

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CITATION

Schutte DP, Van der Zwan P. (2024). An evaluation of book-tax differences of South African firms. Journal of Infrastructure, Policy and Development. 8(8): 5201. https://doi.org/10.24294/jipd.v8i8.5201

ARTICLE INFO

Received: 21 March 2024
Accepted: 24 April 2024
Available online: 12 August 2024

Abstract: This paper evaluates the permanent and temporary differences between accounting profits and taxable income of South African companies using the data in the SARS-NT panel. It contributes to the establishment of a body of knowledge about book-tax differences of South African companies. Unlike previous research conducted on this topic in other countries, the characteristics of the whole population of South African companies are considered. The results describe the book-tax differences and evaluate the nature and trends in the creation or reversal of temporary differences in South Africa. Significant amounts of book-tax differences were merely described as 'Other' in the information that taxpayers submitted to the SARS, which hampers a user's ability to interpret or use this information sensibly. We further observed that the SARS-NT panel did not contain sufficient information to describe book-tax differences and trends therein by industry. These findings suggest that these are areas to consider to improve the design of tax returns and the development of the SARS-NT panel that will benefit future research.

Keywords: accounting profit; taxable profit; permanent taxable differences; temporary taxable differences

1. Introduction

Inconsistencies between accounting and taxation are a necessary concomitant of the current day and age. According to Green (1995), accounting and taxation have different objectives, are subject to different rules, and serve different purposes. For accounting purposes, information is normally prepared for decision-making and control purposes. The main purpose of taxation is to raise revenue to fund the economic and social obligations of government and to ensure that revenue is collected in an equitable manner. In the US Supreme Court case Thor Power Tools Company v. Commissioner of Internal Revenue, it was stated that '[g]iven this diversity, even contrariety of objectives, any presumptive equivalency between tax and financial accounting would be unacceptable.'

Various studies have been performed on these differences. Gallego (2004) analysed the number and types of tax adjustments for listed Spanish firms. Her study comprised audited annual accounts from 1996 to 1998 and consisted of 273 firms. She identified welfare schemes, provisions for pensions, monetary corrections, accelerated depreciation, and exemptions for reinvestment as the most frequent types of permanent and temporary differences. Rohaya et al. (2009) provided empirical evidence that Malaysian listed firms reported higher accounting income to shareholders and lower taxable income to the tax authority. They suggested that the large gap between accounting income and taxable income is a result of extensive tax planning and concluded that taxable income provides useful information about the quality of reported earnings. Kourdoumpalou and Karagiorgos (2012) investigated the

relationship between taxable earnings and accounting earnings. Their investigation focused on corporate tax behaviour and the extent of tax evasion by Greek firms. They found that 16 per cent of Greek firms are involved in tax evasion. Zhou (2016) analysed large book-tax differences in relation to earnings management and the influence on future earnings. His analysis included temporary book-tax differences and the level of tax planning by Fama-French 10 industries companies.

Widiatmoko and Indarti (2019) investigated the effect of book-tax differences on the earnings persistence of manufacturing firms in Indonesia. They concluded that non-permanent book-tax differences negatively affect earnings persistence. According to Hepfer (2023), taxable income provides a different lens on the firm's economic performance, while Abarghuoi and Shahmoradi (2022) stressed the importance of distinguishing between temporary and permanent differences in analysing book-tax differences. Mei (2021) reviewed the differences between accounting standards and tax law in China. The study analysed the reasons why book-tax differences exist and proposed strategies to harmonise accounting standards and tax legislation.

In South Africa, companies are required by the Companies Act (28 of 2008) to prepare financial statements in terms of International Financial Reporting Standards (IFRS). The South African Income Tax Act (58 of 1962) levies normal tax in respect of taxable income, as defined in Section 1 of that legislation. The differences between IFRS and the requirements of the Income Tax Act result in book-tax differences for South African companies. Notwithstanding the aforementioned evidence about book-tax differences in other parts of the world, no previous research was found about the nature and types of book-tax differences in the South African context.

The aim of this paper is to describe and evaluate the differences between accounting profits and taxable income of South African companies and contribute to the establishment of a body of knowledge about book-tax differences in the South African context. This study is distinguishable from other research on book-tax differences because it considered the whole population of companies in South Africa, as opposed to only a segment, in many instances listed companies or specific industries, in previous research. Moreover, this study provides a detailed analysis of the permanent and temporary book-tax differences in South Africa. The study sheds light on the nature and extent of permanent differences as well as the creation and reversal of temporary book-tax differences. From a tax policy perspective, this study provides recommendations to evaluate the tax contribution of South African companies in a more meaningful manner.

The remainder of this paper is structured as follows: Section 2 provides a literature review and historical overview of the relationship between accounting and tax practices. This serves as context for why these book-tax differences identified in the data exist. Section 2 also provides the theoretical framework for this study. Section 3 describes the data analysed in this study and the methodology adopted. Section 4 describes the processing of the data, followed by the discussion of South African book-tax differences. Section 5 concludes and provides the limitations of the paper.

2. Literature review

2.1. Historical overview

In the ancient barter economies, taxes were initially levied on payments in kind. According to this system, people paid a certain percentage tax, normally 10 per cent of the annual produce of the land, to the religious leaders or other forms of government (Shaw, 1975). During the Middle Ages, the balance sheet was used to calculate the tax liability of a taxpayer, and tax systems comprised mostly of wealth and property taxes (Wolfe, 1966). The estimation of tax liabilities based on net asset values inevitably resulted in the undervaluation of assets. During the eighteenth century, a consumption tax system was in place in most of Europe. This tax system was, however, criticised for the heavy burden on the poor, and renewed calls were made for a tax system that corresponds with the economic ability of a taxpayer (Pfaff and Schröer, 1996).

At the commencement of the nineteenth century, taxes in Germany were levied based on the class or status of a taxpayer. Personal finances or economic wealth were ignored, and it was not necessary to keep records of any kind. In 1851, a more equitable form of taxation was introduced in Prussia. According to this system, taxation was levied on the net cash received during a particular tax period. In certain areas, tax was calculated based on separate tax accounts, while commercially prepared accounts were used to determine taxable income elsewhere. The concept of taxing net receipts, compared to the practice of using commercially prepared accounts to determine tax liabilities, received much attention during this time. Arguments against commercial accounts as the basis of the tax calculation maintained that excessive depreciation would reduce the tax base. Proponents of the commercial accounting method suggested that it would be more cost-effective and uncomplicated, not having to compile a second set of accounts for tax purposes. Tax reform in 1925 mandated that the Fiscal Court of the Reich should monitor principles of good bookkeeping. Although this function provided more authority to tax principles, commercially prepared accounts were acceptable for tax purposes as long as it represented proper bookkeeping and was not in contradiction with any tax rule (Pfaff and Schröer, 1996).

Business profits in the UK have been taxed since the eighteenth century. Both natural persons and legal entities were required to pay tax at a rate of 10 per cent on annual profits exceeding £200. At the time, generally accepted accounting principles and methods consisted of a wide variety of practices that could not always be relied on. The ‘profit’ and ‘income’ concepts were not defined in the early tax regulations, and different rules evolved over time for different types and sources of income. In 1845, surveyors were appointed by the UK government to assess the reasonableness of amounts declared for tax purposes. In support of information provided for tax purposes, registered companies were required to submit annual balance sheets, although not necessarily of good quality (Edwards, 1989). During the build-up to the Second World War, tax rates increased to as much as 50 per cent of taxable profits. At the time, a number of avoidance schemes existed (Izawa, 2022). As a result, the Institute of Chartered Accountants in England and Wales issued specific guidance about matters affecting taxation and the relationship between the business community and the tax authority. The first important recommendation required that the tax charge disclosed in the financial statements should be based on the annual profit for a period and that not only the tax liability that accrued over previous periods should be disclosed. The second recommendation declared that income tax is a distribution to the government as a company’s stakeholder. The legal distinction between accounting

and taxable profits in the UK resulted in a practice of disclosing accounting profits in accordance with accounting rules followed by adjustments according to the tax rules to determine the taxable profit or loss for a particular year (Lamb, 1996).

In the Netherlands, the Commercial Code of 1837 required merchants to keep a journal to record transactions and the 'affairs of the trade' (Hoogendoorn, 1996). The Accounting Act was promulgated in 1971 and required that financial statements should be 'generally acceptable' and that it would enable users to make 'sound judgments and decisions' based on the content of the financial statements. The Act on Company Taxation was introduced in 1893 to regulate the taxation of company profits. The initial aim of the act was to tax distributed profits only. In 1917, however, the War Profit Tax Act required that undistributed profits should also be taxed. More detailed guidance about the calculation of taxable profits was provided in the Profit Taxation Decree in 1940, which determined that companies should be taxed on the movement in the capital during a financial year. At the time, there was no specific guidance about the valuation of assets and liabilities in the balance sheet, apart from the requirement to determine values based on 'sound business practice' and on current cost or current replacement values (fair values). In 1947, however, the Tax Reform Act was published, which required that fixed assets and inventories should be recognised for tax purposes at historical costs (Hoogendoorn, 1996).

In 1914, accounting was described as an "underdeveloped discipline" in France (Fleischman and Radcliffe, 2005). There were no specific accounting rules or regulations, and the determination of profits has been described as 'being subjected to all sorts of creativity and fantasy' (Frydlender and Pham, 1996). Accounting was considered to be at a lower level of the legal hierarchy compared to tax rules and regulations. According to Gray (1988), tax rules influenced accounting practices as well as the economic and social behaviour of French companies. Although the principle of unity was confirmed for purposes of simplicity and cost implications, an "unbalanced relationship" existed between accounting and taxation due to the "aggressive interpretation" of the autonomy of fiscal law by the tax authorities.

2.2. Accounting for taxation

Over the years, many different approaches have been followed to reconcile and explain the reasons for differences between accounting and tax profits. The differentiation of accounting and tax practices has been criticised because of the 'imprisonment' or restrictions of capital and the non-neutrality of the system (Artsberg, 1996). Where the goal of accounting profits is to provide a fair presentation of the financial position, the goal of tax is to determine a fair tax charge (Hoogendoorn, 1996). Accounting has been described by Nobes and Parker (1991) as a system that is 'extremely judgmental' in nature. On the other hand, financial statements compiled in accordance with the tax rules were criticised for providing a "distorted" reflection of the financial results. Furthermore, practitioners expressed their concern that the tax authorities would invent their own rules, and that it would not be cost-efficient to apply different rules. The practitioners argued that accounting practices evolved over time from commercial reasons and that these commercial circumstances reflected the best estimate of a company's ability to pay tax. While some of these differences arise

because of the inherent differences between the basis for accounting and taxation, Erickson et al. (2004) suggested that companies tend to disclose inflated income figures to the shareholders and bear the extra income tax expense. It may, however, be possible to manipulate accounting earnings and, at the same time, evade taxes by utilising tax incentives (Dharmapala and Desai, 2009).

In 1979, the International Accounting Standards Board (IASB) published 'IAS12—Accounting for Taxation on Income'. The accounting standard for income tax was re-issued in 1996 as 'IAS12—Income Taxes'. Companies that apply International Financial Reporting Standards must reflect the tax implications of the future recovery and settlement of assets and liabilities in the financial statements as deferred tax assets or liabilities (IASB, 2017). Deferred tax arises mainly due to book-tax differences.

Book-tax differences exist due to the inconsistent recognition of income and expense items for accounting and tax purposes (Koubaa and Anis, 2015). As discussed in the background, book-tax differences arise from differences between accounting standards and tax rules. Book-tax differences can be temporary or permanent in nature (Wahab and Holland, 2015). Temporary book-tax differences will reverse in future periods. For example, the depreciation expense is usually higher for tax purposes in the early years of an asset's life, due to the use of accelerated depreciation methods for tax purposes. This creates a temporary book-tax difference that will reverse when the depreciation expense is lower for tax purposes than for accounting purposes in the later years of an asset's life. The occurrence of temporary book-tax differences in a specific period that is reversed in a subsequent period is recognised as a deferred tax asset or deferred tax liability in the financial statements (Gallego, 2005).

In contrast to temporary differences, permanent book-tax differences will not reverse in future periods. For example, non-taxable dividends that are only recognised as income for accounting purposes, affect only the current year's tax provision with no future tax consequences. Permanent book-tax differences also affect the effective tax rate, which is the ratio of the actual tax expense to the book or accounting profit (Xian et al., 2015).

2.3. Theoretical framework

Adam Smith introduced four principles of an ideal tax system: equity, certainty, convenience and efficiency. In the modern day and age, these principles are still considered to be the cornerstone of effective tax policies (Kim, 2023). Tax policy research requires a thorough understanding of not only the legal and technical challenges but also the political, cultural and social implications. In addition, tax policy research normally considers the reasons behind taxation, how taxes should be levied, tax administration and tax policy design principles ((Nerré, 2008). The focus of this study is on a specific policy design principle, namely book-tax differences. The book-tax differences theory underscores the inherent disjunction between financial accounting practices and tax regulations in determining the taxable income of a company. According to Heriante et al. (2021), this theory elucidates the multifaceted nature of book-tax disparities, which can arise from variances in the recognition and measurement of revenues, expenses, and assets. These differences stem from diverse

factors, including timing differences in the recognition of revenue and expense and the treatment of certain transactions under distinct regulatory frameworks. The book-tax differences theory was adopted for this study to gain a better understanding of the complex relationship between book entries in accordance with the accounting standards and taxable income calculated in accordance with the applicable tax laws.

Book-tax differences are important for both the traditional users of financial statements and policymakers. Firstly, book-tax differences provide information about the quality of earnings and the sustainability of cash flows (Zhou, 2016). Secondly, book-tax differences indicate the potential gap between the statutory and the actual tax collections, including risk assessment criteria for tax authorities (Riguen Koubaa and Jarboui, 2017). As stated in the background and introduction, no research has been performed to describe the nature and extent of book-tax differences in South African firms. The following sections describe these differences in a South African context in more detail.

3. Materials and methods

We analysed South African companies' permanent and temporary differences using the data in the SARS-NT panel, which contains firm-level data collected from companies that submitted income tax returns between 2013 and 2018. The SARS-NT panel contains information about company income tax data and comprises firm characteristics, financial information, and specific details about the accounting profits of firms and the adjustments made for tax purposes. Pieterse et al. (2018) described the SARS-NT panel as an unbalanced panel data set that was created by merging several sources of administrative tax data. These sources were (i) company income tax from registered firms that submitted tax forms; (ii) employee data from employee income tax certificates submitted by employers; (iii) value-added tax data from registered firms; and (iv) customs records from traders. The focus of our analysis is on the firm-level data summarised from the information submitted by companies for the period under review.

We initially adopted a descriptive research design method for this study. Descriptive research aims to obtain information about the current state of a phenomenon and provide an accurate description of specific attributes on an observational basis (Rahi, 2017; Williams, 2007). Following the aforementioned description of the data, we utilised Stata, a statistical software package, to summarise the main income and expenditure items to calculate the accounting profit or loss for each firm included in the data panel. The accounting profit or loss calculation was subsequently adjusted for the different types of tax adjustments to calculate the taxable income for each firm and each financial year covered in the data panel. The analysis furthermore comprises a summary of the permanent and temporary differences, whether the differences are positive or negative, as well as a comparison and analysis of permanent and temporary differences for the different financial years covered in the data panel. In terms of ethical risk, there were no human participants involved in this study. The data was also subject to a comprehensive review by UNU-WIDER to ensure that no personal or confidential information was disclosed and the calculations were checked and monitored by a statistical consultant.

Only data from the ITR14 information have been included in the results below. Information about the previously used IT14 tax return was excluded due to the significant differences between the current and the previous versions of the South African tax return for companies. Companies classified as small business corporations ('SBC') were eliminated due to inconsistencies observed in the data (915,364 observations).

The remaining panel data included a significant number of companies with an accounting profit equal to nil. From the total remaining observations (4,252,979), only 1,793,967 of the observations represented companies with an accounting profit or loss for the tax year under review. Further analysis revealed that some of these companies had significant tax adjustments despite reflecting no accounting profit or loss on their returns. We, therefore, considered companies with no accounting profit or loss and no tax adjustments as dormant or inactive, and excluded them from the population. The remaining population consisted of companies with accounting profit or loss and/or tax adjustments for the year. These companies included both companies with positive taxable incomes and those with assessed losses. Conceptually, these companies are not distinguishable since book-tax differences could arise for all of them. The final data used is summarised in **Table 1** below.

Table 1. Companies that were not dormant or inactive per tax year.

Tax year	Mean	Standard deviation	Frequency
2013	ZAR 3,131,666	1.26×10^8	309,951
2014	ZAR 3,793,308	1.55×10^8	307,429
2015	ZAR 3,774,206	2.07×10^8	305,562
2016	ZAR 5,129,799	4.38×10^8	307,241
2017	ZAR 4,300,577	2.28×10^8	300,635
2018	ZAR 3,530,982	1.84×10^8	263,149
Total	ZAR 3,951,161	2.46×10^8	1,793,967

Source: Authors' calculations based on National Treasury and UNU-WIDER (2021).

4. Results and discussion

This section of the paper presents a descriptive analysis of the relationship between accounting profits and taxable income.

4.1. Relationship between accounting profit and taxable income

The starting point for the analysis performed was to gain an understanding of the relationship between the accounting profit and the taxable income of entities in the population. **Table 2** provides an overview of the relationship between the weighted average net accounting profits and the weighted average taxable income for all entities in the population across the years covered by the data.

For purposes of the analysis, the adjustments made to net accounting profit to calculate taxable income were categorized as:

- Adjustments of a permanent nature. These are adjustments made only to accounting profit or taxable income and do not represent timing differences.

- Adjustments of a temporary nature. These are adjustments made to both accounting profit and taxable income and represent timing differences.
- Adjustments that may contain both items, or where it was not possible to determine whether it is permanent or temporary in nature due to the lack of detail in the field description.

Table 2. Comparison between average accounting profit and taxable income across the population.

	Weighted average	**Percentage of accounting profit**
Net accounting profit	ZAR 1,666,656	
Non-taxable permanent adjustments	(ZAR 1,180,509)	–71%
Non-deductible permanent adjustments	ZAR 112,994	7%
Temporary differences	ZAR 44,114	3%
Deductible temporary differences	(ZAR 1,407,917)	–84%
Taxable temporary differences	ZAR 1,452,031	87%
Combined/unknown	ZAR 42,209	3%
Taxable income	ZAR 647,921	39%

Source: Authors' calculations based on National Treasury and UNU-WIDER (2021)

Although the effect of the gross average amounts of deductible and taxable temporary differences are significant in relation to the average net accounting profit, the net effect over a period of approximately five years was only three per cent of average net accounting profits. This is in line with the expected outcome, since timing differences should reverse and eliminate over time.

The significant effect of non-taxable permanent items is perhaps the most noteworthy observation from **Table 2**. At first glance, this appears to suggest that a large portion of accounting profits remain untaxed. **Table 3** presents the top 5 items that contribute approximately 93 per cent of the total non-taxable adjustments of a permanent nature.

Table 3. Top 5 non-taxable permanent adjustments.

Description	**Percentage**
Local dividends	63%
Other non-taxable amounts	19%
Exempt foreign dividends	5%
Receipts and/or accruals of a capital nature	4%
Income (other than foreign dividends) exempt from tax	3%
Total	100%

Source: Authors' calculations based on National Treasury and UNU-WIDER (2021).

Local dividends that are exempt in terms of section 10(1)(k) of the Income Tax Act are the single biggest contributor to this adjustment category. It accounts for approximately 63 per cent of the non-taxable adjustments of a permanent nature. These dividends do not represent profits that went untaxed, but rather profits that have already been subject to income tax in the hands of the entity paying the dividend when

earned. This exemption prevents the cascading of corporate income tax at the level of every shareholder through whose hands the dividends pass.

Foreign dividends are similarly intentionally exempt (or partially exempt in some instances) from normal tax, even though South Africa lacks the ability and jurisdiction to directly tax the foreign companies that pay these dividends (National Treasury, 2011). This exemption does arguably also not represent an unintended leakage from the tax base.

The items in **Table 3** that may be of concern to the legislature and the SARS are the non-taxable items broadly categorized in the relevant tax returns as 'Other non-taxable amounts' (19 per cent), 'Capital receipts and accruals' (4 per cent) and 'Income exempt from tax, excluding foreign dividends' (3 per cent). The ITR14 tax return does not describe and categorize these amounts that were not subject to tax. As a result, the tax authorities are unlikely to have sufficient information to assess the risk that taxpayers treated these amounts correctly.

4.2. Further description of adjustments

An understanding of adjustments that have the most significant impact, either in aggregate or individually, should assist the tax authority in effectively focusing on compliance and investigative efforts.

Table 4 presents the top 10 adjustments that increase taxable income (credit adjustments), as recorded in the tax returns in the data panel. These adjustments account for approximately 78 per cent of all credit adjustments made by companies.

Table 4. Top 10 credit adjustments.

Description	Percentage
Provisions not deductible in the current year	13%
Non-deductable amounts	13%
Depreciation from financial statements	13%
IFRS adjustments for fair value	9%
Advances received	8%
IFRS adjustments for accounting	6%
Provision for doubtful debts	4%
Allowances for future expenses (S24C)	4%
Doubtful debt allowance (S11j)	4%
Other income not credited to the Income Statements	4%
Total	100%

Source: Authors' calculations based on National Treasury and UNU-WIDER (2021).

Table 5 presents the top 10 adjustments that decrease taxable income (debit adjustments), again, as recorded in the tax returns in the data panel. These adjustments account for approximately 83 per cent of all credit adjustments made by companies.

Table 5. Top 10 debit adjustments.

Description	Percentage
Local dividends	25%
Reversal of provisions	10%
Other special allowances	9%
IFRS adjustments for fair value	8%
Other non-taxable amounts	7%
Accounting profit on disposal of assets	7%
Wear-and-tear allowance	6%
Amounts previously taxed as received in advance	5%
Allowances for future expenditure (S24C)	3%
Doubtful debt allowance (S11j)	3%
Total	100%

Source: Authors' calculations based on National Treasury and UNU-WIDER (2021).

These adjustments were ranked based on the average effect on the calculation of taxable income. This means that they account for the most significant adjustments on an aggregated basis in the context of the overall population of companies. The individual adjustments by specific taxpayers may not necessarily be significant.

It is again evident that significant components of these adjustments were recorded into broad categories, such as 'Other special allowances', 'Other non-taxable amounts' and 'Other non-deductible amounts' by taxpayers when submitting returns. It is unclear what these categories of adjustments comprise, and as noted earlier, such descriptions are not conducive to effective monitoring of compliance and risk assessment by the tax authorities.

While it is useful to understand the most prevalent adjustments made by companies, industry-specific knowledge may be of more value to the tax authorities. This would assist them to focus on the most relevant adjustments made by entities in specific industries. We did not perform this analysis in this paper as it was discovered that all the industry codes were not included in the data panel.

In contrast to the above adjustments that have the most significant effect on the calculation of the average taxable income, there are several adjustments that may not impact the average taxable income significantly across the population but are significant in amount when they occur. These are adjustments with a high mean, as opposed to a weighted average value. From the perspective of the tax authority, these adjustments may be focus areas, given the substantial amounts involved in relatively few adjustments. **Table 6** shows the adjustments for which the mean amount per adjustment exceeded ZAR50 million in the overall population.

Similarly, to the most significant adjustments by average amount, it would arguably be useful to determine the adjustments with the most significant mean in various industries had the data contained all the relevant industry codes. This would assist tax authorities in focusing their attention on those high-value adjustments in each industry.

Table 6. Adjustment with mean per adjustment in excess of ZAR50 million.

Description	Mean
Qualifying REIT distributions (S14BB)	ZAR 210,000,000
Pipelines transmission rail deduction (S12D)	ZAR 132,000,000
Income exempt double taxation agreement	ZAR 104,000,000
Film allowance (S24F)	ZAR 104,000,000
Greenfield projects(S12I)	ZAR 99,200,000
Mark-to-market treatment (debit)	ZAR 93,700,000
Brownfield projects (S12I)	ZAR 87,400,000
Mark-to-market treatment (credit)	ZAR 80,800,000
Energy efficiency savings deduction (S12L)	ZAR 75,000,000
Debtors allowance (S24)(credit)	ZAR 67,400,000
Exempt foreign dividends (S10B)	ZAR 64,900,000
Debtors allowance (S24)(debit)	ZAR 61,200,000
Transfer pricing adjustments	ZAR 54,400,000

Source: authors' calculations based on National Treasury and UNU-WIDER (2021).

5. Conclusion

This paper provides evidence of the adjustments that are made between accounting profits and taxable income by South African companies. Similar to studies conducted in China (Mei, 2021) and Spain (Gallego, 2004), our analysis identified the major types of tax adjustments by South African companies, as illustrated in **Table 4** and **Table 5**, where credit adjustments represent adjustments that increase accounting profits compared to debit adjustments that should be deducted from accounting profits to calculate taxable profits. Our analysis also provided the analysed the reasons why book-tax differences exist and proposed strategies to harmonise accounting standards and tax legislation.

Following the recommendations of Abarghuoi and Shahmoradi (2022) to distinguish between permanent and temporary differences, our analysis provided evidence that timing differences reversed over the five years covered in this paper. In this regard, we observed a marginal 3 per cent difference between deductible (84 per cent) and taxable (87 per cent) temporary differences, as illustrated in **Table 2**. The non-taxable permanent differences (71 per cent) in **Table 2** did, however, exceed the non-deductible permanent differences (7 per cent) by a significant margin. This difference could be interpreted as an excessive deduction allowed by the tax authority. The analysis revealed that the majority of the non-taxable permanent differences comprised of dividends received, an intended difference that arises due to the way in which company profits and dividends are taxed in South Africa.

A significant component of adjustments was also classified as 'Other non-taxable amounts', 'Other special allowances', 'Other non-taxable amounts' and 'Other non-deductible amounts'. This observation is attributable to the level of detailed information that taxpayers are required to provide on tax returns. The lack of detail significantly limited our ability to describe book-tax differences in more detail. We submit that this lack of detail would similarly hamper the ability of the SARS and the

National Treasury to use the information collected on tax returns to identify risks and consider the impact of amendments to the law, respectively. This can be improved through the information collected on tax returns. Any such changes to the design of the tax returns should, however, balance the value of the information obtained for SARS and the National Treasury with the administrative burden it may place on taxpayers to complete such returns.

Another limitation of this study was the fact that there was no more recent information available at the time of this study. In this regard, it is acknowledged that considerable time and effort are required to make this magnitude of information available for research purposes. Moreover, the data in the panel companies was not sufficient to classify firms according to industry codes. The SARS-NT panel does not contain sufficient industry data to extend the analysis to specific industries. Further analysis of the results by industry and more specific detail about other categories could provide researchers and policy-makers with a much deeper insight into the reasons for the difference between accounting profits and taxable income in a more focused way than when considering the population as a whole. Addressing the aforementioned points could enable future research to focus on

When the SARS-NT panel was introduced by Pieterse et al. (2018) it was observed that, even though the data conforms broadly to those reported by Statistics South Africa, the creation, cleaning and administration of the database was still in progress. Similarly to Pieterse et al. (2018), the analysis identified deficiencies in the SARS-NT panel. This paper also contributes to the development of the panel by recommending areas where the data and information from taxpayers can be improved for future research projects and the benefit of the tax authorities and legislature. Addressing the limitations highlighted in this study could enable future research to consider the effect of book-tax differences during and after the Covid-19 pandemic. Future research projects could also consider and compare book-tax differences and evaluate the effect of tax deductions for specific industries. Furthermore, other countries in the world should be encouraged to make the same information available to enable the comparison of book-tax differences between different countries and regions of the word.

Author contributions: Conceptualisation, DPS and PVdZ; methodology, DPS; software, DPS; validation, DPS and PVdZ; formal analysis, PVdZ; investigation, DPS and PVdZ; resources, DPS; data curation, PVdZ; writing—original draft preparation, DPS; writing—review and editing, DPS and PVdZ; visualization, PVdZ; supervision, DPS; project administration, DPS; funding acquisition, DPS. All authors have read and agreed to the published version of the manuscript.

Conflict of interest: The authors declare no conflict of interest.

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