Deferred Tax Accounting: A Bibliometric Analysis and Future Research Opportunities

Purnama Siddi¹, Bambang Sutopo²
¹Universitas Islam Batik Surakarta
Doctoral Student in Accounting, Universitas Sebelas Maret, Jl. Ir. Sutami 36A, Surakarta 57126, Indonesia
²Universitas Sebelas Maret, Jl. Ir. Sutami 36A, Surakarta 57126, Indonesia

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Abstract
Authors have paid close attention to the subject of deferred tax in recent decades. This study thoroughly examines deferred tax bibliometrics in order to identify future research possibilities and follow research advancements connected to specific deferred tax challenges. To improve the display of research evolution over time with identical specified publisher quality requirements, this paper limits data analysis to articles published in Scopus-indexed journals. We investigate specific subjects that are highly cited, as shown by the number of citations. Furthermore, documents by country or region, as well as articles published within the last five years, are examined. The review identifies potential areas for future investigation. This should be useful for authors interested in the research of deferred tax.

Keywords: deferred tax, Scopus-indexed journals, financial accounting, bibliometric analysis, future research

1. Introduction
Deferred tax can be defined as the tax resulting from discrepancies between tax regulations and financial (commercial) accounting standards. This difference implies that the income or expenses recorded in each period will be different. However, the total amount to be recognized in fiscal and commercial accounts will be the same. This disparity is commonly referred to as a transitory difference.

Deferred taxes can be characterized from both an asset and a liability standpoint in accounting. According to IAS 12, deferred tax assets are the total income taxes that can be recovered in subsequent periods for the following: (a) deductible transitory differences; (b) unused tax losses carried forward; and (c) unused tax credits carried forward. A deferred tax liability is defined as the amount of income tax due in future periods with respect of taxable transitory differences.

Edeigba et al. (2023) emphasize the importance of deferred tax in financial reporting. Previous research (e.g. Graul & Lemke, 1976; Groves & Samuels, 1976; Lamp & Hempstead, 1975; Williams & Findlay III, 1975) began to raise the topic of deferred tax in their papers.
Researchers have shown a continued interest in the study of deferred taxes in recent years (Fourie & Van Rooyen, 2024; Iriyadi et al., 2024).

The growth of research on deferred tax has motivated us to use bibliometric analysis to examine these studies in greater detail. Görlitz & Dobler (2023) conducted a literature review, particularly using the EBSCOHost database and the ScienceDirect database. The current literature study is a bibliometric analysis conducted using the Scopus database, which has become a quality reference for the publication of papers in internationally recognized journals.

We developed the following four research questions as a guide for our bibliometric analysis.

1. What is the publication trend regarding deferred taxes?
2. What is the country or territory-specific perspective on the deferred tax documents?
3. Which are the most frequently cited papers?
4. What particular subjects of deferred tax have been published in the past five years?

It is intended that this study will add to the body of knowledge on delayed tax and prove helpful to authors who may want to explore deferred tax in the future.

2. Method

We used bibliometric analysis in this literature study. Bibliometric analysis is a popular quantitative assessment tool for publications. The bibliometric study was advantageous since it produced significant results that improved understanding of the global publication of certain topic materials (Nobanee et al., 2023).

We make use of the Scopus database for our bibliometric analysis. Scopus is a source-neutral abstract and citation database curated by independent subject matter experts who are established leaders in their professions (https://blog.scopus.com/about). Previous research has made use of the Scopus database (L.-H. Chen & Nguyen, 2024; Ilham et al., 2024; Novri Gazali et al., 2023; Phuong et al., 2023). The procedure for looking for papers in the Scopus database is as follows. First, we looked for papers with the keyword "deferred tax" in the "Article title". This step generated 124 documents. We chose these terms for the "Article title" to ensure that the paper we received was focused on deferred tax. Of the 124 publications, we discovered two with "[No Authors Found]" in the “Authors” field. We excluded these two documents from the sample. In addition, we discovered two publications of the "Note" type. We also omitted these two documents from the study.

The materials acquired were evaluated using publication trends about deferred tax (or documents by year), research country of origin (documents by country/territory), citation analysis, and current topic analysis. Publication trends on deferred tax are meant to determine whether deferred tax is a study area that is growing appealing to authors. Documents by country/territory are intended to determine which nations the papers are evaluated. Citation analysis identifies articles based on the most popular themes. Furthermore, publications published during the last five years are designed to indicate current themes that have captured the authors' interest.
3. Results and Discussion

Deferred taxes were first studied in 1957 by Duberger (1957) as Figure 1 illustrates. Research on differential taxes was conducted again in 1975 and was done so by E. Williams (1975) and Lamp (1975). The body of studies on differential taxes is still growing. Ten papers were studied by Paseková (2018), Kvaal (2018), Brouwer (2018), Edwards (2018), Watson (2018), Górowski (2018), Bauman (2018), Habanec (2018), Kusumaningdyahadiati (2018), and Waschbusch (2018). Two documents, authored by (Fourie, 2024) and (Iriyadi, 2024) are released in 2024.

Figure 1. Documents by year

Figure 2 lists the top 10 documents sorted by country or territory. The United States accounted for the largest number of documents with forty, followed by Australia, Germany, and Indonesia with seven each. The Czech Republic has six documents next, then Canada, New Zealand, and Portugal have four documents each. The final one has three documents from the Netherlands and Greece separately.
Table 1 shows a summary of citations from 20 publications arranged by the number of citations starting from the highest, starting with the most citations of research written by Phillips (2003), which totaled 301. Phillips (2003) evaluates the efficacy of deferred tax expenses in detecting earnings management. The second most frequently cited source is Schrand (2003), which appears at 104. According to research, most banks do not record valuation allowances to manage earnings and instead adhere to the SFAS No. 1 rules. The third source is Miller (1998) research, which has been mentioned 97 times. This study investigates the factors that influence the valuation allowance for deferred tax assets under SFAS No. 109.

The fourth is Amir (1997) research, which has been cited 78 times. They investigate the value relevance of the deferred tax components reported in SFAS No. 109. The fifth is Ayers (1998) research, which has been cited 76 times. This study looks into whether the net deferred tax liabilities disclosed under Statement of Financial Accounting Standards No. 109, Accounting for Income Taxes (SFAS No. 109) provide more valuable information than the disclosure required by Accounting Principles Board Opinion No. 11, Accounting for Income Taxes (APB No. 11). The sixth is a study conducted by Skinner (2008) that has been cited 55 times. This study provides evidence for the importance of deferred taxes in Japanese banks' recent financial crisis.

The seventh study was carried out by K. Chen (2000) and has been cited 51 times. The eighth is the study by Chaney (1994), which has been cited 42 times. The ninth is a study conducted by Christensen (2008) that has been cited 37 times. The rules of SFAS No. 109 enable US corporations to increase earnings large bath by establishing a deferred tax valuation allowance. The tenth is a study conducted by Guenther (2000), which has been cited 32 times. This study employs an analytical model to analyze the firm’s value when there are transient variations between when income and expense items are recorded for tax and financial reporting purposes.
The eleventh is a study that has been quoted thirty times and was carried out by Laux (2013). This study investigates if and to what extent deferred taxes provide additional information about future tax payments, as well as whether and when the deferred tax accounts are reversed, has an impact on this relationship. The twelfth is based on research that has been mentioned 26 times and was done by Gordon (2004). They study if managers in the United Kingdom estimate unrecognized deferred taxes opportunistically by taking advantage of the flexibility afforded by the partial approach for deferred taxes. The thirteenth is based on research Poterba (2011) that has 26 citations. The impact of switching from one tax regime to another on a corporation can vary depending on its deferred tax status.

The fourteenth study was done by Sansing (1998) and was cited 26 times. The sixteenth study was done by Holland (2004) and was cited 25 times. This study examines firms' deferred tax provisions during a period when the firms' incentives to manage earnings may have been particularly strong, and when firms made disclosures about partial deferred tax provisions that easily revealed their under- or over-provision of deferred taxes. The sixteenth is a study conducted by (Kasipillai, 2013), which has been cited 24 times. This study investigates whether Malaysian publicly traded businesses (PLCs) use deferred taxes to prevent earnings declines.

The seventeenth study was conducted by (K. C. W. Chen, 2003), which was cited 24 times. This study looks at analyst projection changes following the announcement of corporations' deferred tax adjustments following the US. The eighteenth study, conducted by (Kumar, 2003), has been cited 21 times. An event analysis reveals that disclosures of changes in deferred tax valuation allowances (VA) give information beyond what is reported in current earnings reports. The twentieth study was conducted by (Chang, 2009), who has been mentioned 20 times. This study looks at the value relevance and incremental information quality of deferred tax accruals reported under the 'income statement approach' (AASB 1020 Accounting for Income Taxes) from 2001 to 2004. The twentieth is research undertaken by Guenther (2004) and has been cited 20 times. This paper compares two attributes of deferred tax liability (DTL) that arise from differences in book and tax depreciation methods.
Table 1. Twenty top-cited documents

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
<th>Cites</th>
<th>Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Phillips</td>
<td>Earnings management: New evidence based on deferred tax expense</td>
<td>301</td>
<td>2003</td>
<td>Accounting Review</td>
</tr>
<tr>
<td>C.M. Schrand</td>
<td>Earnings Management Using the Valuation Allowance for Deferred Tax</td>
<td>104</td>
<td>2003</td>
<td>Contemporary Accounting Research</td>
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<td></td>
<td>Assets under SFAS No. 109</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>G.S. Miller</td>
<td>Determinants of the valuation allowance for deferred tax assets under</td>
<td>97</td>
<td>1998</td>
<td>Accounting Review</td>
</tr>
<tr>
<td></td>
<td>SFAS no. 109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Amir</td>
<td>The valuation of deferred taxes</td>
<td>78</td>
<td>1997</td>
<td>Contemporary Accounting Research</td>
</tr>
<tr>
<td></td>
<td>of its incremental value-relevance relative to APB no. 11</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D.J. Skinner</td>
<td>The rise of deferred tax assets in Japan: The role of deferred tax</td>
<td>55</td>
<td>2008</td>
<td>Journal of Accounting and Economics</td>
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<td></td>
<td>accounting in the Japanese banking crisis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K. Chen</td>
<td>The 1993 tax rate increase and deferred tax adjustments: A test of</td>
<td>51</td>
<td>2000</td>
<td>Journal of Accounting Research</td>
</tr>
<tr>
<td></td>
<td>functional fixation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>P. Chaney</td>
<td>The Effect of Deferred Taxes on Security Prices</td>
<td>42</td>
<td>1994</td>
<td>Journal of Accounting, Auditing &amp;</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Finance</td>
</tr>
<tr>
<td>T. Christensen</td>
<td>Creating a bigger bath using the deferred tax valuation allowance</td>
<td>37</td>
<td>2008</td>
<td>Journal of Business Finance and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Accounting</td>
</tr>
<tr>
<td>D. Guenther</td>
<td>Valuation of the firm in the presence of temporary book-tax</td>
<td>32</td>
<td>2000</td>
<td>Accounting Review</td>
</tr>
<tr>
<td></td>
<td>differences: The role of deferred tax assets and liabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R.C. Laux</td>
<td>The association between deferred tax assets and liabilities and</td>
<td>30</td>
<td>2013</td>
<td>Accounting Review</td>
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<td></td>
<td>future tax payments</td>
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<tr>
<td>J.M. Poterba</td>
<td>Deferred tax positions and incentives for corporate behavior</td>
<td>26</td>
<td>2011</td>
<td>National Tax Journal</td>
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<tr>
<td></td>
<td>around corporate tax changes</td>
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<td></td>
<td></td>
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<tr>
<td>R. Sansing</td>
<td>Valuing the Deferred Tax Liability</td>
<td>26</td>
<td>1998</td>
<td>Journal of Accounting Research</td>
</tr>
</tbody>
</table>
Table 2 displays the deferred tax studies published in the recent five years (2020-2024). There has been a fair amount of study conducted between 2020 and 2024 on valuation or value relevance of deferred tax. Bakke (2023) examines whether the valuation allowance is associated with auditors’ going concern evaluations. Flagmeier (2022) examines whether deferred taxes reported in a German conservative accounting environment have information content. Hamilton (2023) examines the nuanced association between depreciation-related DTLs and firm value, extracted from a period when these relations may have been more easily analyzed by investors.

Mear (2021) investigates the applicability of tax allocation accounting (deferred tax) in anticipating future tax paid and expense. Silva (2021) provides a precise and conceptually sound mathematical technique to valuing DTAs that takes into account future revenue and rate estimates as well as the DTA's legal time limit. Soliman (2020) seeks to determine the impact of deferred tax on investors' actions, specifically the value relevance of deferred tax. Sutopo et al. (2021) examine whether large deferred taxes and large accruals have an impact on the relationship between earnings and firm value. Visvanathan (2021) investigates the effect of deferred tax valuation allowances, management's discussion of the ability to continue as a going concern, and auditor going concern opinions in anticipating a firm's financial difficulty.

Although not as much as valuation, authors have been very interested in earnings management during the past five years. A summary of how deferred tax expense, current tax, and discretionary accruals affect earnings management is given in (Anggraeni, 2020). The transient disparities between accounting income and taxable profit were the root cause of earnings management. The impact of tax evasion, deferred tax obligations, and deferred tax expenses on actual earnings management is examined by Machdar (2022). Deferred tax expense's impact on banking businesses' earnings management is examined in Meiryani, M et al., (2021).
Other papers address different aspects of deferred taxes. The impact of transfer pricing, deferred tax expense, and sustainability reporting on tax evasion is examined in Iriyadi et al. (2024). The debt-to-equity ratio’s treatment of deferred tax is examined by Fourie & Van Rooyen (2024), who also note any discrepancies between theory and reality. By concentrating on deferred taxes, Mura (2023) adds to the expanding body of research on earnings management in private companies.

Campa (2023) argues that it is more appropriate to model the relation between deferred tax accruals and subsequent tax payments using a first-difference model rather than the levels model employed in the extant literature. Knežević (2023) shows that managers of Serbian agriculture companies use accounting accruals for the non-current assets to create book-tax differences and influence effective tax rates. Percevic (2023) identifies the impact of the effects of the fair value concept application and corresponding deferred taxes on the financial position and performance of the large Croatian companies from the real sector in the period from 2010 to 2019.

China implemented the single balance sheet liability approach for tax accounting, however, Xue (2022) notes that issues have surfaced. The effects of the 2008 global financial crisis and the recognition of deferred tax assets and their role in manipulating earnings are examined in Moniz (2022). The Czech Republic now uses a variety of ways to financial reporting of deferred tax during company combinations, which are analyzed and evaluated by Pospíšil (2022). Stiebal (2022) addresses the function of deferred tax in pass-through businesses and investigates the methods used by Czech limited partnerships—which are categorized as partially pass-through—to report on deferred taxes. Mear (2021) investigates the use of tax allocation accounting, or deferred tax, in forecasting future tax liabilities and payments. Wong (2021) investigates the effects on financial statements of the tax depreciation on buildings that were brought back on March 25, 2020, as a part of the COVID-19 tax relief package offered by the New Zealand government.
Table 2. Topics connected to deferred tax in papers published in the recent five years (2020-2024).

<table>
<thead>
<tr>
<th>No.</th>
<th>Topic</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Valuation</td>
<td>(Bakke et al., 2023; Flagmeier, 2022; Hamilton, 2023; Mear et al., 2020; Silva et al., 2021; Soliman &amp; Ali, 2020; Sutopo et al., 2021; Visvanathan, 2021)</td>
</tr>
<tr>
<td>2</td>
<td>Earnings management</td>
<td>(Anggraeni et al., 2020; Machdar, 2022; Nolastname et al., 2021)</td>
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<td>3</td>
<td>Effect of deferred tax on tax avoidance</td>
<td>(Iriyadi et al. 2024)</td>
</tr>
<tr>
<td>4</td>
<td>Treatment in the debt-to-equity ratio</td>
<td>(Fourie &amp; Van Rooyen, 2024)</td>
</tr>
<tr>
<td>5</td>
<td>Literature review</td>
<td>(Görlitz &amp; Dobler, 2023)</td>
</tr>
<tr>
<td>6</td>
<td>Reconciling competing reporting objectives</td>
<td>(Mura, 2023)</td>
</tr>
<tr>
<td>7</td>
<td>Deferred tax accruals</td>
<td>(Campa et al., 2023)</td>
</tr>
<tr>
<td>8</td>
<td>Managerial aspects of using deferred tax</td>
<td>(Knežević et al., 2023)</td>
</tr>
<tr>
<td>9</td>
<td>Financial performance</td>
<td>(Percevic &amp; Ėrcegovic, 2023)</td>
</tr>
<tr>
<td>10</td>
<td>Tax burden</td>
<td>(Vidal et al., 2023)</td>
</tr>
<tr>
<td>11</td>
<td>Analysts’ earnings forecasts</td>
<td>(Xue, 2022)</td>
</tr>
<tr>
<td>12</td>
<td>Misuse of deferred taxes and financial crisis</td>
<td>(Moniz et al., 2022)</td>
</tr>
<tr>
<td>13</td>
<td>Business combinations</td>
<td>(Pospíšil, 2022)</td>
</tr>
<tr>
<td>14</td>
<td>Deferred tax reporting</td>
<td>(Stiebal, 2022)</td>
</tr>
<tr>
<td>15</td>
<td>Future tax prediction</td>
<td>(Mear et al., 2021)</td>
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<tr>
<td>16</td>
<td>Covid-1</td>
<td>(Wong et al., 2021)</td>
</tr>
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</table>

4. Conclusion and Opportunities for Future Research

The findings of this bibliometric research indicate a positive trend in works on deferred tax. This suggests that authors are increasingly interested in deferred tax. Document analysis by nation or territory reveals that deferred tax studies were conducted in a variety of countries. The United States leads the paper on deferred tax, followed by Australia, Germany, Indonesia, and other nations.

A significant amount of citations are given to numerous publications. The two papers about earnings management, J. Phillips (2003) and C.M. Schrand (2020), have had the highest number of citations—301 and 104, respectively. Papers by Miller & Skinner (1998), Amir et al. (1997), and Ayers (1998)rank next, with 97, 78, and 76 citations, respectively. Citations to fifteen other papers ranged from twenty to fifty-five. Out of the twenty studies, eight were published in the Accounting Review, accounting for 40%. The twelve additional papers were released in different journals.

A closer look into valuation or value relevance may be the subject of future studies. Studies on deferred taxes that take into account different aspects of earnings management can also be
conducted. Further research on the aforementioned or other particular deferred tax concerns may be the focus of future studies.

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Kusumaningdyahadiati, A. (2018). Does disclosure method of deferred tax matter for investors in


