“The value relevance of deferred tax assets: An empirical analysis of German HDAX-listed companies”

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THE VALUE RELEVANCE OF DEFERRED TAX ASSETS: AN EMPIRICAL ANALYSIS OF GERMAN HDAX-LISTED COMPANIES

Abstract

Deferred taxes emerge from timing differences in recognizing income and expenses between commercial and tax financial statements. However, the capitalization of deferred tax assets remains contentious, with questions raised about their value relevance to investors. This study aims to investigate the informational value and economic significance of deferred tax assets in financial statements prepared in accordance with both German commercial law (HGB) and International Financial Reporting Standards (IFRS).

The analysis is based on financial data from 1,066 firm-year observations of HDAX-listed companies from 2000 to 2022. Using an Ordinary Least Squares (OLS) regression model, the study examines the relationship between deferred tax assets and the market value of equity. Key financial variables, including research and development expenses, deferred tax liabilities, net income, and the market-to-book ratio, are incorporated to provide a comprehensive assessment of deferred tax asset relevance in capital markets.

The results demonstrate that deferred tax assets have a negligible impact on the market value of companies, with no statistically significant effect detected. Conversely, research and development costs, as well as net income, exhibit a strong positive influence on firm valuation. These findings suggest that deferred tax assets serve largely as an accounting mechanism, lacking informational value for investors.

Keywords taxation, accounting standards, capital markets, financial reporting, income taxation

JEL Classification M41, H25

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INTRODUCTION

Deferred taxes play a critical role in bridging the gap between the commercial and tax balance sheets. They arise from timing differences in recognizing business transactions for financial reporting and tax purposes. Deferred tax liabilities occur when future tax obligations exceed the tax burden recognized in the current income statement, while deferred tax assets arise when future tax liabilities are expected to be lower than the current recognition. This connection between commercial and tax balance sheets is particularly pronounced in accounting systems with dual reporting structures. In Germany, the close alignment of tax and commercial balance sheets through the authoritative principle has historically minimized these deviations.

The concept of deferred taxes, which originated from Anglo-Saxon accounting practices and was integrated relatively late into German accounting law through the Accounting Directive Act (BiRiLiG), is increasingly relevant as the commercial and tax balance sheets decouple. This decoupling has reignited debates about the role and significance

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of deferred taxes, especially regarding their informational value for users of financial statements. When users understand the difference between tax and commercial profits, the disclosure of deferred taxes often fails to provide additional insights, raising questions about their true value relevance.

1. LITERATURE REVIEW

Literature is reviewed from three angles. First, a perspective of the German commercial law is taken. Second, the perspective from IFRS is provided. Third, and last, the information perspective of accounting is discussed. All this will be condensed in a summary and a research hypothesis.

The concept of accounting for deferred taxes is not without controversy (Coenenberg & Hille, 1979; Harms & Küting, 1984; Köhler et al., 2003; Siegel, 1984). In very fundamental discussions on deferred taxes, the starting point is the issue of capitalizing them. Following the logic of Schütte (2006), the starting point is the vague balance sheet definition of Section 242 (1) HGB in the sense of the static balance sheet concept. It is concluded from this definition that the comparison of assets and liabilities is intended to show the debt coverage potential of a company. In this view, assets can be defined as economically usable potential to cover liabilities (Baetge et al., 2002; Moxter, 1986). The potential benefit serves as a central characteristic for the concept of an asset. It refers to the creation of a benefit that extends beyond the accounting period. The operational utilization possibilities are also taken into account (Freericks, 1976; Pfeiffer, 1984; Reinhard, 1995). An asset should have a future advantage or potential benefit, particularly in the context of operational performance (Hopt et al., 1995; Pfeiffer, 1984; Reinhard, 1995).

The specific independent marketability was already present in the early static accounting concept and has been further developed over the years (Freericks, 1976; Kußmaul, 1995; Schneider, 1981). Nowadays, the literature defines individual saleability as a constituent criterion of the capitalization principle (Moxter, 1983; Roland, 1980; Schneider, 1986). Nevertheless, the criterion remains controversial, in particular, because it relies heavily on the idea of the break-up of the company, which contradicts the valuation under the going concern assumption (Baetge & Kirsch, 1995; Hommel, 1998; Kußmaul, 1995). According to the concept of abstract independent marketability, an asset is assumed if it is individually transferable by nature (Freericks, 1976; Kählert, 1995; Kropff, 1973). Nevertheless, this concept is also subject to criticism, as it is often assumed to be conceptually vague (Ballwieser, 1990; Tiedchen, 1991). Independent usability is linked to the concept of marketability but goes beyond this. It is about whether an object or right is economically realizable in order to cover debts (Hommel, 1998; Lamers, 1981). Criticism of this definition often relates to the potential scope it opens up for the person preparing the balance sheet (Baetge & Kirsch, 1995; Ballwieser, 1990; Tiedchen, 1991).

From this, it is difficult to attribute the character of an asset to deferred tax assets. The legal codification of rules for the formation of deferred tax assets within the framework of the BiRiLiG has already given rise to a lively debate on this issue. Art. 43 para. 1 no. 11 of the 4th EC Directive 78/660/EEC requires disclosures in the balance sheet or notes on "...the difference between the tax charged for the financial year and for earlier financial years and the amount of tax payable in respect of those years, provided that this difference is material for purposes of future taxation. This amount may also be disclosed in the balance sheet as a cumulative amount under a separate item with an appropriate heading [...]." (European Union, 1978, No L 222/26). With the codification of Section 274 (2) HGB in the individual financial statements, the German legislature legalized a capitalization option for deferred taxes. Such a capitalization option cannot be deducted from a theoretical accounting perspective and was therefore justified by the character of deferred tax assets as an "accounting aid" (Köhler et al., 2003, p. 2338). As these balance sheet items were not assets – at least from the perspective of the time – a distribution block was imposed at the same time so that the company could not dispose of them with an effect on liquidity (Böcking et al., 2024). These payout blocks have a long tradition, which is based on a static approach to liquidation, but which empirically plays a more than subordinate role with regard to actual payouts (Zimmermann & Guder, 2023).

Accounting for deferred taxes is more important in consolidated financial statements prepared in accordance with the HGB than in the separate financial statements prepared in accordance with the HGB. In the consolidated financial statements, there are not only original differences from the respective separate financial statements, but also additional differences due to standardization and consolidation measures (Bense, 2022). Deferred taxes resulting from consolidation processes in particular were already required to be capitalized and recognized as liabilities in accordance with Section 306 (1) Sentence 1 HGB from 1985. Deferred tax assets arise, for example, during initial consolidation in accordance with Section 301 (1) HGB if hidden liabilities are disclosed in the course of the acquisition of company shares, particularly in the case of share deals, and the tax book values of the acquired company remain unchanged (Wysocki et al., 2014). Separate rules apply to goodwill. In debt consolidation in accordance with Section 303 (1) HGB, the amount of the balance sheet items to be eliminated may differ due to different statutory recognition and measurement regulations. Deferred taxes must be recognized on the resulting offsetting differences.

The BilMoG from 2009 was another milestone in accounting for deferred tax assets. The reform was not so much characterized by an insight into the normative and theoretical difficulties of accounting, but rather marked the end of a long-lasting debate on the "modernization" of German accounting law, which in the end was nothing more than the adoption of international rules that did not have to be measured against the standards of the German principles of proper accounting (Baetge et al., 2009; Rossmanith et al., 2014). The debate traced by Bense (2022) in particular illustrates the conceptual arbitrariness of the rules.

The transition from the timing method to the temporary method is the only constant in the otherwise erratic process of developing the new Sections 274 and 306 HGB (Loitz, 2009). The balance sheet-based temporary concept entails a more comprehensive tax deferral than the income statement-oriented timing concept. Following the implementation of BilMoG, deferred taxes must be recognized not only for temporary differences, but also for quasi-permanent differences, as well as for differences that have arisen without affecting profit or loss (Böcking et al., 2024; Grottel & Larenz, 2024).

In terms of information accounting, reporting in the notes regarding deferred taxes has also been expanded. Section 285 No. 29 HGB now requires explanatory disclosures on which differences or tax loss carryforwards the deferred taxes are based and which tax rates were used for the valuation. Although the scope of application of this provision is limited, experts criticize the fact that the explanatory obligation under Section 285 No. 29 HGB can be fulfilled by meaningless formulations in the form of qualitative disclosures (Böcking et al., 2024; Grottel, 2022).

Capital market-oriented groups from the EU must prepare consolidated financial statements in accordance with IFRS. In this respect, these perspectives are also more important for the subsequent empirical study than those of German commercial law. However, as already explained in the previous section, the regulations have converged significantly in recent years.

Recognition of assets and liabilities in the balance sheet requires that the definition and recognition criteria set out in the IFRS framework are met. According to this framework, a resource that is under the company's control and is expected to generate future economic benefits is considered an asset. According to the framework, an asset is recognized in the balance sheet if it is probable that the economic benefits will flow to the company and if the acquisition or production costs or another value that approximates the benefit can be reliably determined (IASB, 2018).

The accounting of deferred taxes is regulated in IAS 12 (Indenkämpen, 2014). As the name of the standard suggests, it is one of the older standards. IAS 12 was revised in October 1996 and applies to reporting periods beginning on or after January 1, 1998 (Indenkämpen, 2014). It, therefore, predates the 2010 framework, which places greater emphasis on information for the capital market. IAS 12 "Income Taxes" sets out rules for the comprehensive accounting of income taxes. It takes into account the current and future tax effects of business transactions and events and the future realization

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or settlement of the carrying amounts of assets and liabilities. Unsurprisingly – as the recognition of deferred tax assets is an idea imported from the Anglo-Saxon world into German accounting law – IAS 12 relates tax effects and the commercial balance sheet to each other (Risse, 2013). It would be misleading to speak of tax accounts throughout, as not all financial statements use balance sheet-oriented approaches to determine income or corporation tax.

IAS 12 follows the temporary concept and does not distinguish between temporary and quasi-permanent differences with regard to the need to recognize deferred taxes. In line with this approach, deferred taxes in the IFRS context include both temporary differences recognized in profit or loss and temporary differences not recognized in profit or loss. The recognition of deferred taxes should always reflect the effect on the profit or loss of the underlying transaction. Deferred taxes not recognized in the regular result from ordinary activities must be recognized outside this result. In two cases in particular, deferred taxes arise outside the income statement ("through profit and loss") due to the underlying regulations in the respective standards: These are the effects caused by revaluation in accordance with IAS 16 or currency translation in accordance with IAS 21. Another consideration of deferred taxes outside the income statement are corrections and error adjustments. These resulting deferred taxes must then be booked directly against equity.

Under IFRS accounting, both deferred tax assets and deferred tax liabilities meet the recognition criteria for assets and liabilities and are presented accordingly in the financial statements. Here, too, the special origin from Anglo-Saxon accounting practice is evident. This is because the Anglo-Saxon world is no stranger to the concerns raised in German accounting theory, which have led to the classification of deferred tax assets as an accounting aid. Deferred tax assets must also be recognized for tax loss carryforwards if sufficient taxable profits are expected in the future. There is no time limit. IAS 12 also explicitly includes deferred taxes resulting from tax credits, and discounting is not permitted.

Accounting for business combinations in accordance with IFRS is also in line with German commercial law. For example, tax effects are not to be taken into account when accounting for goodwill, which results from the difference between the purchase price and the fair value of the identifiable assets. This is particularly important due to the impairment-only approach to goodwill, which is justifiably criticized (Zimmermann et al., 2021).

However, this does not mean that business combinations have no impact on the recognition of deferred taxes. This is because there are effects at the level of the individual assets that must be taken into account when determining deferred taxes. If the net assets in the IFRS balance sheet are lower than in the tax balance sheet, there is a corresponding obligation to recognize deferred tax assets for the resulting deductible temporary differences. In the event of higher tax goodwill compared to IFRS goodwill, IAS 12 provides for the capitalization of a deferred tax asset for the deductible difference. Such constellations occur when certain intangible assets are taken into account in the purchase price allocation in the IFRS balance sheet that are not recognized for tax purposes.

Deferred tax assets and liabilities must be reported as separate balance sheet items in the IFRS balance sheet in accordance with IAS 1.54, separately from current tax assets and liabilities. Deferred taxes can generally be reported as non-current assets or liabilities, even if they are expected to be reversed within the next twelve months and would, therefore, normally be classified as current. Despite the general classification as non-current, IAS 1.61 requires a differentiation between current and non-current deferred taxes in the notes.

Some German-language studies have already dealt with the question of which information-economic conclusions can be drawn from the accounting of deferred taxes. Chludek (2011) examines the effects of deferred taxes on company value and cash flow. The research focuses on the interpretation and valuation of deferred taxes by the capital markets and the effects of accounting standards (IFRS and US GAAP) on company value and cash flow. The results show that capital markets generally do not attach importance to deferred taxes. One explanation is the lack of expectation of material cash flows in the near future, which Chludek (2011) shows. Breitkreuz (2012) analyzes the value relevance of deferred taxes on the German capi-

tal market in his study. By integrating deferred taxes into the Feltham and Ohlson (1995) valuation model, the study shows that a loss in external reporting indicates negative prospects of success in future tax accounts, which affects the recoverability of deferred taxes. Investors, therefore, not only take current results into account when valuing companies but also include future tax accounts in their decisions. Meyer (2013) also deals with the value relevance of deferred taxes of German companies. He examines whether there is a correlation between the reported deferred tax expense and the company value. The results of the study show a negative correlation between the reported deferred tax expense and the company value. However, this correlation is not significant. Dreher (2019) examines the effects of accounting for deferred taxes on tax loss carryforwards on the decision-making of investors, analysts and other stakeholders. This study examines the predictive relevance of deferred taxes on loss carryforwards by using in and out-of-sample tests to empirically examine whether accounting information on deferred taxes on loss carryforwards is suitable for improving the forecast of future performance. In addition, it is analyzed whether there is a connection between the accounting of deferred tax assets on loss carryforwards and specific situations in which there is an (increased) incentive for accounting policy. In fact, the recognition of deferred taxes on tax loss carryforwards plays an important role in the decision-making process of investors and can also have an impact on the accounting policies of companies.

The academic literature presents a critical view of deferred tax assets, particularly in Germany, where their recognition as assets is largely seen as an accounting convention rather than an indication of future economic benefit. Empirical evidence supports the view that deferred tax assets contribute minimally to the overall valuation of companies in capital markets. This study, therefore, aims to explore the value relevance of deferred tax assets in the context of German HDAX-listed companies, focusing on their impact on company valuation from both a theoretical and empirical perspective. It will address the hypothesis that

H: *Deferred tax assets have no significant impact on the market value of equity.*

2. METHOD

In the following, the value relevance of deferred tax assets will be tested using an OLS regression model. The value relevance is explained by the market value of equity in a company *i* in period *t*. This model was chosen specifically for the German context in order to take into account the special features of German accounting and tax legislation. In Germany, accounting and tax regulations are closely linked, which makes the analysis of the value relevance of deferred taxes more complex. The model therefore takes into account specific variables that are of particular importance in German accounting and thus enables a more precise analysis of the effects of deferred taxes on the market value of equity:

$$\begin{aligned} MVE_{it} &= \alpha + \beta_1 CEQ^{adj}{}_{it} + \beta_2 NI^{adj}{}_{it} \\ &+ \beta_3 DTE_{it} + \beta_4 DTA_{it} + \beta_5 DTL_{it} \\ &+ \beta_6 R\,\&\,D_{it} + \beta_7 MVB_{it} + \varepsilon, \end{aligned} \quad (1)$$

where *MVE* – Market value of equity; *CEQ* – Equity attributable to majority shareholders; *NI* – Net income; *DTE* – Deferred tax expense; *DTA* – Deferred tax asset; *DTL* – Deferred tax liability; *R&D* – Research and development costs; *MVB* – Market to book ratio.

The subscripts refer to firm *i* in the year *t*. The superscript *adj* refers to the adjustment made of the respective effects of deferred taxed in the balance sheet and the income statement.

The dependent variable market value of equity (MVE) is calculated by multiplying the number of shares by the unadjusted share price three months after the financial year. As the first explanatory variable, the model of Meyer (2013) is used and the equity attributable to majority shareholders (CEQ) is adjusted for deferred tax assets (CEQ^{adj}). This isolates the net effect of deferred taxes on the balance sheet. To isolate the effect of deferred taxes on earnings, the net income for the year before deferred tax expenses (NI^{adj}) is added to the model (Meyer, 2013). Ultimately, our model contains three variables: deferred tax expense (DTE), deferred tax assets (DTA), and deferred tax liabilities (DTL) (Breitkreuz, 2012; Chludek, 2011; Meyer, 2013). Both the research and development costs

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(R&D) and the market value to book ratio (MVB) act as control variables.

The analysis is based on the German HDAX comprising companies listed in one of the following indices calculated by Deutsche Börse: DAX, MDAX, and TecDAX. Companies listed in both the TecDAX and the DAX or MDAX are only included once. Therefore, the number of stocks in the HDAX is variable. Due to the changes in the HDAX composition, the company sample is also subject to change each year of the study. The observation period covers the years 2000 to 2022. Companies from the financial and insurance sector were not included. All observations with missing values were also removed from the sample. The final sample comprises a total of 1,066 company-year observations.

The capital market-related data and company information required for the study were taken from the Thomson Reuters Datastream database. The capital market-related data include, in particular, share prices, equity data, deferred tax data, research and development costs and market-to-book ratios. The general company data consists mainly of the sector and industry classifications.

3. RESULTS AND DISCUSSION

Table 1 presents the descriptive results.

To control for potential multicollinearity problems, pairwise Pearson correlations between the independent variables (Table 2) are analyzed. The correlations are essentially significant but low. An additional variance inflation factor (VIF) test (not tabulated) produces no problematic results. The diagnostic values of the VIFs indicate no multicollinearity issues.

Table 1. Descriptive statistics

Variables	N	Mean	SD	Median	P25	P75
MVE (in € billion)	1,066	14.0	21.4	4.9	1.5	15.7
CEQ^{adj} (in € billion)	1,066	9.2	15.8	2.4	0.7	10.1
NI^{adj} (in € billion)	1,066	1.0	2.5	0.3	0.1	1.1
DTE (in € million)	1,066	–59.9	1,338.1	–10.4	–184.7	95.0
DTA (in € million)	1,066	831.8	1,645.9	168.9	28.9	805.0
DTL (in € million)	1,066	770.5	1,845.8	111.0	22.0	570.9
R&D (in € million)	1,066	780.4	1,669.1	101.2	35.5	513.5
MVB	1,066	3.2	4.2	2.2	1.3	3.6

Note: Table 1 shows the descriptive statistics of all variables for the entire sample. The following variable description applies: MVE = market value of equity; CEQ^{adj} = equity attributable to majority shareholders adjusted for deferred tax assets; NI^{adj} = net income before deferred tax expense; DTE = deferred tax expense; DTA = deferred tax assets; DTL = deferred tax liabilities; R&D = research and development expenses; MVB = market-to-book ratio.

Table 2. Correlation table

Variables		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	MVE	1.0000	–	–	–	–	–	–	–
(2)	CEQ^{adj}	0.6387	1.0000	–	–	–	–	–	–
(3)	NI^{adj}	0.5414	0.7795	1.0000	–	–	–	–	–
(4)	DTE	–0.0213	–0.0339	0.0056	1.0000	–	–	–	–
(5)	DTA	0.5377	0.7929	0.5219	**–0.2459**	1.0000	–	–	–
(6)	DTL	0.4672	0.6845	0.4721	0.4999	**0.7137**	1.0000	–	–
(7)	R&D	0.5906	0.7754	0.5782	–0.3450	0.6364	**0.3222**	1.0000	–
(8)	MVB	–0.0486	–0.1923	**–0.1100**	–0.0062	–0.1592	–0.1459	**–0.1357**	1.0000

Note: Table 2 shows the pairwise Pearson correlations for the entire data set, with bold print indicating statistical significance at the 0.01 (or 1%) level. The following variable description applies: MVE = market value of equity; CEQ^{adj} = equity attributable to majority shareholders adjusted for deferred tax assets; NI^{adj} = net income before deferred tax expense; DTE = deferred tax expense; DTA = deferred tax assets; DTL = deferred tax liabilities; R&D = research and development expenses; MVB = market-to-book ratio.

Table 3. Results of multivariate analysis

Variables	(A)	(B)	(C)	(D)
CEQ^{adj}	0.668***	0.045	0.031	0.153
	(0.167)	(0.217)	(0.219)	(0.204)
NI^{adj}	1.165**	1.955***	1.857***	1.782***
	(0.528)	(0.659)	(0.671)	(0.664)
DTE	–	–	1.178	0.410
			(0..18)	(0.979)
DTA	–	–	–	–1.719
				(1.323)
DTL	–	–	–	–
R&D	–	6.201***	6.755**	6.945**
		(2.277)	(2.628)	(2.729)
MVB	–	–181,609.502	–186,023.608	–162,066.228
		(133,584.902)	(133,120.887)	(125,620.212)
Constant	Included	Included	Included	Included
Year-fixed-effects	Included	Included	Included	Included
Industry-fixed effects	Included	Included	Included	Included
Observations	1.066	1.066	1.066	1.066
R^2	0.577	0.627	0.630	0.632

Note: Table 3 contains the results of the basic regression to estimate the relationship between deferred tax assets and the market value of a company's equity. Column A shows the model without the influence of any deferred taxes. Column B includes the control variables. From column C, the deferred taxes are inserted hierarchically until column D shows the entire main model. *, **, *** indicate the statistical level (10 %, 5 %, 1 %) of the coefficient. The following variable description applies: MVE = market value of equity; CEQ^{adj} = equity attributable to majority shareholders adjusted for deferred tax assets; NI^{adj} = net income before deferred tax expense; DTE = deferred tax expense; DTA = deferred tax assets; DTL = deferred tax liabilities; R&D = research and development expenses; MVB = market value to book ratio.

Table 3 shows the analysis results of the value relevance of deferred tax assets. To address heteroscedasticity, the standard errors of the coefficients are calculated according to Petersen (2009). Furthermore, both year-related and company-related fixed effects are taken into account to address the risk of dependencies between companies within a year (time effect) and between the respective companies over the years (company effect), which exist due to the panel structure of the data basis.

The descriptive analysis provides a good classification of deferred taxes in German accounting. On average, deferred tax assets amounting to € 831.8 million were recognized. This figure becomes more significant when set in relation to the average market value of the equity of an average company, which is € 14.0 billion. This results in a ratio of around € 1 in deferred tax assets for every € 17 in market value. A comparison of deferred tax liabilities shows that these are lower than deferred tax assets, both on average and on median. The average actual deferred tax expense of € –59.9 million is in stark contrast to the deferred tax assets and liabilities. This in itself is an indication of the strong portfolio and weak flow effect.

Overall, the regression equations explain the variance quite well; however, this is primarily due to the year- and company-related fixed effects. The contribution of deferred tax assets to the company value is negligible. The empirical analysis thus leaves open the main answers to the asset value character (DTA) and the valuation-relevant flows (DTE).

In Model A, the isolated effect of equity attributable to majority shareholders (CEQ^{adj}) is adjusted for deferred tax assets and net income before deferred tax expenses (NI^{adj}). The coefficient for equity attributable to majority shareholders is positively significant at the 1% level. The coefficient for net income for the year before deferred tax expenses is also positive and significant at the 5% level. In Model B, the research and development costs (R&D) and the market value of total capital (MVB) are taken into account in addition to the variables in Model A. The annual result and the

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research and development costs have a significant positive influence on the market value of equity at the 1% level. The equity attributable to majority shareholders, on the other hand, no longer has a statistically significant influence on the market value of the companies' equity. The Model C specification contains all variables from Model B as well as the deferred tax expense that affects cash flow (DTE). The results show that the deferred taxes affecting cash flow have no significant impact on the market value of equity. Model D specification includes deferred tax assets (DTA) in addition to the variables in model C. The results also show no statistically significant influence on the market value of equity for deferred tax assets.

Lack of value relevance is neither a sufficient nor a necessary condition for the recognition of an item in the balance sheet. It cannot be a sufficient condition because numerous empirical phenomena have an impact on the share price of companies, but these are not directly related to the problems of accrual accounting. For example, empirical research has demonstrated value-relevant correlations to social reporting (Cardamone et al., 2012) and CEO attributes (Page, 2018). In both cases, this suggests an impact on the expected cash flows of the company or from the company (e.g. as dividends), but the issues are outside of accrual decisions of cash flows, which determine whether a situation exists that must be capitalized or recognized as a liability. It follows from the logic of empirical research that detecting value relevance cannot be a necessary condition to give rise to accounting-relevant situation.

Inductive statistics only permit the rejection of null hypotheses. This generates more or less certain knowledge about facts that do not apply. Significant positive coefficients indicate value relevance; however, a lack of proof of significance does not allow the reverse conclusion that there is no value relevance. Even a small sample size, for example with a small group of companies to be analyzed, can be the cause of missing evidence. What is also often ignored is a multiple implicit value judgment that underlies empirical balance sheet research (Zimmermann & Werner, 2004).

CONCLUSION

This work provides a detailed examination of the value relevance of deferred tax assets and their impact on company equity. Descriptive statistics indicate that deferred tax assets in German companies average €831.8 million, which, when compared to the average market value of equity (€14.0 billion), presents a ratio of approximately €1 in deferred tax assets for every €17 in market value. Despite this, the results of the regression analysis show that neither deferred tax assets (DTA) nor deferred tax expense (DTE) have a statistically significant impact on the market value of equity. Although equity attributable to majority shareholders and net income before deferred tax expense initially demonstrate significant positive effects, the influence of deferred taxes remains negligible.

The study highlights that a lack of value relevance, such as with deferred tax assets, does not necessarily preclude the recognition of these items in the balance sheet. Empirical phenomena like social reporting and CEO characteristics also impact company valuation, showing that various factors, not directly tied to accrual accounting, can influence share prices. Moreover, while significant positive coefficients suggest value relevance, the absence of significance cannot lead to the conclusion of no value relevance due to factors such as sample size or underlying implicit judgments. Thus, deferred tax assets may still hold accounting significance, even without clear value relevance.

Giving reporting decisions are finally normative, the sobering conclusion is that the empirical approach of "positive accounting theory" is not a silver bullet. It has narrow application requirements and its results only have limited significance. Quantitative empirical research is clearly reaching its limits when it comes to dealing with the concept of deferred taxes. Accordingly, there is no getting around a normative appraisal of accounting.

AUTHOR CONTRIBUTIONS

Conceptualization: Jochen Zimmermann.
Data curation: Jochen Zimmermann.
Investigation: Jochen Zimmermann.
Writing – original draft: Jochen Zimmermann.

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