

Effective Tax Rate and Book-Tax Difference Based on Industrial Sectors Companies on the Indonesia Stock Exchange

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ABSTRACT

This research aims to analyze the Effective Tax Rate and Book-Tax Difference based on the industrial sector in companies listed on the Indonesia Stock Exchange in 2016-2017. The method used in this research is descriptive analysis method. The technique of collecting data uses literature studies and documentation studies. Meanwhile, data processing techniques use descriptive statistics with a total sample of 119 companies. The results of the study show that each industrial sector has a different Effective Tax Rate movement. Meanwhile, the descriptive analysis of the total Book-Tax Difference shows that the most influential component of temporary differences comes from correction of amortization costs, depreciation costs and subject to final income tax.

Keywords: effective tax rate, book-tax different, industrial sectors.

1. INTRODUCTION

The applicable tax regulations can cause a difference between the amount of accounting profits and taxable profits or also called book-tax difference. Book-tax difference can be one indicator of tax planning (Dridi and Adel, 2015).

Book-tax difference is caused by differences in the reporting system between the statement of financial accounting standards and tax regulations. Differences in accounting and tax are divided into two types, namely temporary differences and permanent differences. Each group of companies certainly has a different book-tax difference.

Ballas and Hevas (2005) found that however, arguments regarding the harmonization of accounting regulation in the academic literature (Joos & Lang, 1994) are primarily based in differences in the valuation implications of accounting data across regulatory regimes.

According to Maydew (2005), possible sources of tension include adverse effects of reporting large book tax differences. Mills (1998) finds that firms with large book tax differences are subject to more severe IRS, leading to larger IRS audit adjustments.

Ballas and Hevas (2005) make suggestions for possible that should control for disclosure differences in different contexts, countries and/or industries.

2. LITERATURE REVIEW

2.1 Book Tax Differences

Total book tax differences represent the most comprehensive measure and capture both temporary and permanent. Temporary book tax differences emerge as a result of differences between book and taxable income with regard to the timing of accrual income and expense items. They can be measured by grossing up the deferred tax expense with the statutory tax rate (Moore, 2012).

Permanent book tax differences, constituting the conceptual counterpart to temporary book tax differences, result from differences between book and taxable income that do not reverse over time. Permanent book tax differences are usually computed as the difference between estimated Total book tax differences and Temporary book tax differences (Wilson, 2009).

2.2 Effective Tax Rate

Effective tax rate can be interpreted as the amount of tax burden that must be paid by the tax subject in a reasonable amount so that it does not hinder the achievement of the objectives of the tax subject. Effective tax rate provides information about the cumulative effects of tax incentives and changes in tax rates that occur within a company.

The company's effective tax rate is often used by policy makers and interest groups as a tool to draw conclusions about the corporate tax system because it provides an easy summary of statistics on the cumulative effects of various tax incentives and changes in corporate income tax rates (Gupta and Newberry, 1997).

2.3 Framework

Tang and Firth (2008) stated that however, accounting rules and tax laws cannot specify the accounting and tax treatment for every business transaction because business activities are complex and continually changing. Mills and Newberry (2005) find that firms with large book-tax differences in interest expense, indicating heavy use of off-balance sheet financing, also have poorer bond ratings.

There are two components which form the accounting earnings, namely: cash flow and accrual components. The persistence of earnings is one component of the predictive values of profits in determining the quality of earnings (Satyawati and Palupi, 2017)

The measurement of the recognition of the book tax-difference is very close to the measurement of the effective tax rate calculated using the GAAP ETR ratio, Cash ETR, and Current ETR. The higher the ETR value indicates the lower the level of effectiveness of corporate tax planning. McGill & Outslay (2004) suggest if taxable income is managed without affecting book income, the variation in BTD is reflective of tax shelters. Alena et al. (2017) confirmed that between countries there are still significant differences in the level of nominal and effective corporate tax burden.

3. RESEARCH METHOD

3.1. Research Characteristics

The research method used in this research is descriptive analysis method, which is a research method that aims to provide description of the facts, data and all things related

to the phenomenon being studied in a systematic, accurate and actual and can be collected which are then compiled, presented and analyzed. Researchers use descriptive studies to study and explain the characteristics of industry groups so that researchers can find out the characteristics of the effective tax rate of each industry and the book-tax difference and analyze the causal component factors.

In this study the research variable is the effective tax rate with GAAP ETR measurements, Cash ETR and Current ETR. Then the book-tax difference variable by looking at components of temporary differences and permanent differences.

3.2. Population and Samples

The population used in this study is the main industrial sector and manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2016-2017. The type of sampling uses purposive sampling technique. Based on the results of the analysis, the sample that matches the criteria is presented in the following table 1.

Table 1

Sample Distribution by Industry Sector

Sector	Population	Tax Payer Loss	Incomplete Data	Sample
Agriculture	20	(8)	(1)	11
Mining	41	(18)	(3)	20
Chemistry Industry	68	(22)	(12)	34
Various Industries	40	(11)	(6)	23
Consumer Goods	41	(9)	(1)	31
Total	210	(68)	(23)	119

Source: Corporate Financial Report (Processed by Researchers)

3.3. Data Collection Technique

The technique of collecting data through library studies is by searching for books, scientific journals, and other sources that are relevant to the problem under study. The technique of collecting data through documentation studies is by making copies or duplicating existing data, and studying documents relating to research.

3.4. Data Processing Technique

In this study data analysis used descriptive statistics, namely statistics to analyze data by describing data that has been collected as it is without the intention of making conclusions that are generally accepted. The initial stage of the research is reading the related literature, then proceeding to collect data in the form of financial statements of major industrial sector companies and manufactures listed on the Indonesia Stock Exchange in 2016-2017 then conduct effective tax rate and book tax different analysis starting from total analysis of each sector industry. Analysis of effective tax rate is done by calculating the effective tax rate amount based on measurements according to Hanlon and Heitzman (2010), as follows:

a) GAAP Effective Tax Rate

Effective GAAP The Tax Rate (GAAP ETR) is basically a tax rate borne by the company.

$$GAAPETR = \frac{\text{Worldwide Total Income Tax Expense}}{\text{Worldwide Total Pre - Tax Accounting Income}}$$

b) Cash Effective Tax Rate

Cash Effective Tax Rate (Cash ETR) reflects the ability of companies to pay cash taxes (cash tax paid) for company profits before income tax (pretax income).

$$\text{CashETR} = \frac{\text{Worldwide Total Cash Taxes Paid}}{\text{Worldwide Total Pre - Tax Accounting Income}}$$

c) Current Effective Tax Rate

Current Effective Tax Rate (Current ETR) is an ETR measurement based on the amount of corporate income tax paid by the company in the current year.

$$\text{CurrentETR} = \frac{\text{Worldwide Current Income Tax Expense}}{\text{Worldwide Total Pre - Tax Accounting Income}}$$

Book-tax difference analysis is done by calculating components of temporary differences and permanent company differences from data taken based on fiscal reconciliation.

4. RESULT AND DISCUSSION

4.1 Effective Tax Rate

The following are the results of calculating the effective tax rate based on the industrial sector.

Table 2

Results of Effective Tax Rate Based on Industrial Sector

Sector	GAAP ETR		CASH ETR		CURRENT ETR		ETR	
	2017	2016	2017	2016	2017	2016	2017	2016
Agriculture	0,2520	0,3704	0,3087	0,3381	0,2784	0,3169	0,2797	0,3418
Mining	0,3588	0,3723	0,4613	0,4628	0,2949	0,3195	0,3717	0,3849
Chemistry Industry	0,2916	0,2420	0,3865	0,2186	0,2801	0,2485	0,3194	0,2364
Various Industries	0,2410	0,2340	0,4571	0,2933	0,2805	0,2426	0,3413	0,2756
Consumer Goods	0,2529	0,2450	0,3539	0,2595	0,2626	0,2666	0,2898	0,2570
Average	0,2793	0,2927	0,3935	0,3145	0,2793	0,2788	0,3204	0,2991
	0,2860		0,3540		0,2791		0,3097	

The effective value of the company's tax rate varies by industry. The company's ETR has exceeded the statutory tax rate, which is above 25% for GAAP ETR of 28.60%, ETR Cash has the highest average value of 35.40% and Current ETR has the lowest average of 27, 91% due to the magnitude of the company's fiscal correction value which results in taxable income.

The highest effective tax rate average value is the mining sector with a value of 38.49% in 2016 and 37.17% in 2017. While the lowest effective tax rate value in 2016 is in the basic and chemical industry sectors with an effective tax rate average value still below statutory tax rate is 23.64% and in 2017 the lowest effective tax rate value was in the agricultural sector with effective tax rate 27.97%.

4.2 Book Tax Differences

4.2.1 Agriculture Sector

The number of corrections of agricultural sector companies on temporary differences is mostly carried out on depreciation costs, which is around 92% of companies, where the negative correction value for depreciation is greater than the positive correction. The majority of the company's negative correction came from depreciation expense of 50.18%. This sector has the highest negative correction of depreciation because the company's assets in the form of plantation crops, buildings and vehicles are very used in the field of business so that the correction is greatest.

The biggest positive correction value came from other components of 43.63%. The number of permanent differences in correction that the majority of companies do from interest income is subject to final income tax worth 67.26% of the total negative correction. This happened because the agricultural sector invested in the banking sector in the form of deposits, SBIs and others expected to earn interest income. The agricultural sector has the most positive correction value carried out on expenses that cannot be deducted fiscally worth 80.16% of the total proportion of corrections made by the company.

4.2.2 Mining Sector

The positive correction value of temporary differences in the mining sector is most influenced by the employee benefit burden of 75.73% and for the negative correction value of 96.11%. Employee benefits are highest because in this sector the company makes a lot of provision for employee benefits in the form of short-term, long-term employee benefits and severance pay.

The negative correction value of the permanent difference that occurs the most on the correction of income is subject to Final Income Tax of 48.41%. The mining sector invests quite high in addition to its business activities such as income from dividends, royalty interest, and so on. The biggest positive correction value is carried out on the expense of representation, entertainment, donations and prizes worth 51.66% of the total proportion of corrections made by the company. This happens because the mining sector is required to carry out CSR activities, including donations so that the value of correction of donations is quite large.

4.2.3 Chemistry Sector

The basic and chemical industry sectors make a number of corrections of temporary differences to depreciation expenses, where the basic industrial and chemical sectors have large assets and have a large value so that the total correction is mostly carried out on depreciation expense with a negative correction value of 52.51%. The component of the positive correction value for the highest temporary difference is in the other correction of 27.47%. In the basic industry and chemical sectors, it has an obligation to restore its business, especially in the sub-sector that provides environmental impacts such as the cement and paper / pulp industries.

The highest correction amount of the permanent difference lies in interest income which is subject to a final income tax of 30 corrections. This shows that in the basic industrial and chemical sectors there are many investments in deposits, SBIs and others. The positive correction of the component that most affected the size of the company's book tax differences was found in the expenses of non-deductible expense and non-taxable income of 31.04% of the total proportion of permanent difference correction. Positive correction in this sector occurs because in this sector has a burden and income that can

be deducted according to article 9 (1) or income is not an object of tax article 4 (3) of the Income Tax Law. Likewise in the negative correction also the correction of non-deductible expense and non-taxable income is the largest component affecting book tax differences.

4.2.4 *Various Industries Sector*

The various industries sector corrects temporary differences in depreciation costs. Because this sector wants to accelerate the recognition of depreciation expenses so that corrections made are negative and reduce Taxable Profit. However, the value component that most affects book tax differences comes from the amortization burden spread to garment, automotive and cable companies. The reason is because in this sector there are many intangible assets so that the value of the large amortization load.

The various industry sectors make the most number of corrections to permanent differences in interest income which are subject to a final tax income of 22 corrections. The correction explained that various industrial sectors invested heavily in the banking sector on deposits, SBIs and others. The largest component of corporate correction value in the permanent difference of various industrial sectors comes from non-deductible and non-taxable income of 61.72% of the total negative correction of permanent differences. The reason is because this sector has a correction value for the account which has a large value but does not specify. In addition, the negative correction sector is mostly carried out on expenses that are not tax deductible.

4.2.5 *Consumer Goods Sector*

The book-tax difference component in the largest correction is carried out on depreciation and employee benefits. This is due to the nature of the business of this sector having machine tools used to produce goods resulting in large depreciation expenses. Whereas employee benefits occur due to differences in recognition of employee benefits according to standard accounting and taxes resulting in a positive correction.

The book-tax difference component of temporary differences for positive corrections has differences in employee benefits with the largest value with a proportion of 54.99%. The cause of the consumer goods industry sector made a correction because this sector is a primary needs sector so that it has more than 1,000 employees, especially in factories that require a large workforce. As a result, the company reserves a large cost of employee benefits because employee benefits are the obligations given by employers to employees. Components of negative correction values that affect there are expenses for depreciation. The value component has a negative average correction value of 91.25% of the 20 samples that made negative corrections. The cause of the correction of depreciation loads that occurs a lot because there are tax planning activities by carrying out the acceleration of depreciation so that the tax accounting profit looks large.

5. CONCLUSIONS

Based on the results of the analysis that the effective tax rate of the company shows different value movements for each industry. The difference is due to differences in tax regulations in each sector, differences in tax incentives, differences in capital structure, effectiveness of tax planning, and differences in the value of GAAP, Cash and Current

ETR. In 2017, 32% of companies have an effective tax rate average value still below the statutory tax rate, which is below 25%. The low effective tax rate value indicates that there are companies in various industrial sectors that carry out aggressive tax planning to reduce the tax burden.

Descriptive analysis of the total book tax difference shows that the percentage of temporary differences that most affect the book tax difference component come from the positive correction of the amortization expense and the negative on the depreciation expense. The cause of correction of amortization is higher because many companies have intangible assets that can be depreciated. For permanent differences correction is positively affected by non-deductible expense and non-taxable income and negative correction due to income subject to Final Income Tax.

REFERENCES

- [1] Alena, A., Lucia, M., & Slavomíra, M. (2017). Meta-analysis categorization of EU countries in the context of corporate income tax. *Contaduría y Administración*, 62(3), 1001-1018. <http://doi.org/10.1016/j.cya.2017.04.002>.
- [2] Ballas, A. & Hevas, D.L. (2005). Response to commentary on Differences in the valuation of earnings and book value: Regulation effects or industry effects?. *The International Journal of Accounting* 40 (2005) 395 – 397.
- [3] Dridi, W. & Adel, B. (2015). Corporate Governance and Boot-Tax Differences: Tunisian Evidence. *International Journal of economics and Finance*, Vol 8, No 1. Research: https://www.researchgate.net/publication/288888433_Corporate_Governance_Differences_Tunisian_Evidence.
- [4] Gupta, S., and K. Newberry. (1997). Determinants of the variability on corporate effective tax rates: Evidence from longitudinal data. *Journal of Accounting and Public Policy*, 16 (1), 1-34.
- [5] Hanlon, M. & Heitzman, S. (2010). A Review of Tax Research. *Journal of Accounting and Economics* 50 127-178
- [6] Maydew, E. (2005). Discussion of Firms' Off-Balance Sheet and Hybrid Debt Financing: Evidence from Their Book-Tax Reporting Differences. *Journal of Accounting Research* Vol. 43 No. 2
- [7] McGill, G. A., & Outslay, E. (2004). Lost In Translation: Detecting Tax Shelter Activity In Financial Statements. *National Tax Journal*, 57(3), 739.
- [8] Mills, L. (1998). Book-tax differences and Internal Revenue Service adjustments. *Journal of Accounting Research*, 36(2), 343–356.
- [9] Mills, L., & Newberry, A.K.J. (2005). Firms' Off-Balance Sheet and Hybrid Debt Financing: Evidence from Their Book-Tax Reporting Differences *Journal of Accounting Research* Vol. 43 No. 2.
- [10] Moore, J. (2012), Empirical evidence on the impact of external monitoring on book-tax differences, *Advances in Accounting, incorporating Advances in International Accounting*, pp. 254-269.
- [11] Satyawati E. and Palupi D.A.P (2017), The Influence of Book Tax Differences on Correlation of Current Earnings, Accruals, and Cash Flows to Future Earnings (Empirical Study on Manufacturing Companies Registered on the Indonesia Stock Exchange in Years 2007-2011) *Review of Integrative Business and Economics Research*, Vol. 6, Issue 4.

- [12] Tang, T. & Firth, M. (2008). Can book–tax differences capture earnings management and tax Management? Empirical evidence from China. *The International Journal of Accounting* 46 (2011) 175–204.
- [13] Wilson, R.J. (2009), An Examination of Corporate Tax Shelter Participants, *The Accounting Review*, pp. 969-999.