An Empirical Examination of Annual Report Presentation of the Corporate Income Tax Expense

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THIS study examines the financial reporting of the corporate income tax expense in annual reports to shareholders. Specifically, the research examines the extent to which the financial reporting of corporate income taxes is in accordance with pronouncements of the Accounting Principles Board (APB) and whether the extent of adherence to these pronouncements is related to: (1) corporate federal income tax rate incurred, (2) corporate size and (3) independent auditor.

APB Income Tax Disclosure Requirements

Several APB Opinions have been issued concerning the financial reporting of income taxes in financial statements to shareholders. The financial reporting of income taxes as specified in APB Opinions can be broken down into two distinct areas: (1) the computation of income tax expense and (2) disclosure requirements. The computation of income tax expense involves matters such as interperiod tax allocation and the method of accounting for investment credits. Such matters affect the computation of net income before extraordinary items and the final net income figure. Disclosure requirements involve the presentation of income tax information in the annual report. Nonadherence to computational requirements is more serious than nonadherence to disclosure requirements; the former presumably would require the issuance of an adverse opinion by the independent auditor, whereas, the latter may not. Since this researcher is unaware of the issuance of any adverse opinion in conjunction with the financial statements of NYSE and AMEX companies, complete adherence to these computational requirements is presumed. For this reason, the present study is limited to examining extent of adherence to selected APB Opinion income tax disclosure requirements.

Four income tax disclosure requirements and the location of the income tax expense in the income statement are selected for analysis as follows:

1. Disclosure of method of accounting for investment credits and amounts included in income for the year
2. Disclosure of the current and deferred income tax figures in the income statement

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3. Disclosure of the income tax effect of extraordinary items
4. Disclosure of the amounts of tax loss carryforwards not included in income for the loss year with expiration dates
5. Placement of income tax expense (relating to income before extraordinary items) in the income statement.

In the remainder of the paper, all five items selected for analysis occasionally are referred to as the "APB Opinion income tax disclosure requirements." This terminology is used for simplicity, even though the last item—income tax location in the income statement—is not an APB Opinion disclosure requirement.

Research Sample

The data for this study were gathered from a random sample of 300 corporations listed on the New York and American Stock Exchanges. Because of the difference in the number of corporations listed on each exchange, the sample of 300 consisted of 167 New York Stock Exchange and 133 American Stock Exchange corporations (from among 1,524 NYSE and 1,215 AMEX corporations). Therefore, the sample was composed of corporations that investors are quite interested in—publicly held corporations whose shares are traded on the two largest stock exchanges in the United States.

Rather than one overall simple random sample, a proportional stratified random sample was used in the study. During the selection process, a company was eliminated if it: incurred a loss for the year of study or was either a real estate investment trust (REIT), a foreign corporation or an investment trust. These corporations were eliminated because they would pay little or no federal income taxes based on their status. The random selection process continued until the requisite 300 corporations was attained. Twenty-six NYSE-listed corporations and forty-two AMEX-listed corporations were eliminated in this manner.

For each corporation, extent of adherence to APB Opinion disclosure requirements was determined by examining the annual report to shareholders for the fiscal year ending between 1 July 1972 and 30 June 1973, the year of study. This study is limited to the annual report for one year because of the near impossibility of obtaining adequate federal income tax data before 1 July 1972. The SEC explicitly requires disclosure in 10-K reports for years ending after 30 June 1972 of both the current and deferred federal income tax figures; thus, 10-K reports can be used to test extent of adherence to APB Opinions in annual reports to shareholders only for fiscal years ending after 1 July 1972. Most of the federal income tax information was gathered from the 10-K report for the year of study. However, the following year's annual report to shareholders or 10-K report also were utilized if tax information for the year of study was presented therein. A questionnaire was mailed to each corporation that did not disclose the necessary information in either its annual report to shareholders or 10-K reports for the year of study or the followup year.

Tax Rate Influence

A major goal of the study was to determine if a relationship existed between corporate federal income tax rates and adherence to APB Opinion income tax disclosure requirements. The rationale underlying this part of the study was the hypothesis that corporations with low federal income tax rates are attempting to obscure this fact; indeed, that they are attempting to create the impression that a greater percentage of their income is paid for federal income taxes than is actually the case. For example, by omitting tax effects of extraordinary items, although required by *APB Opinion No. 11*, it is impossible to compute an effective income tax rate for the corporation. In some instances, the rate incurred on extraordinary items may be significantly lower than the rates incurred on income before extraordinary items because of lower capital gains rates or other tax-reducing provisions. These lower rates would have the effect of reducing the overall tax rate. By not reporting the tax on extraordinary items, these lower rates cannot be determined as readily.

The accounting followed by a company in its income tax returns may differ in material respects from the accounting employed in the preparation of financial statements included in annual reports to shareholders and 10-K reports to the SEC. For example, companies may use the sum-of-the-years' digits depreciation method in their tax returns, even though they use the straight-line depreciation method in their financial statements.

Comprehensive tax allocation for these resulting timing differences is required under generally accepted accounting principles. Comprehensive income tax allocation is based on the theory that income tax expense should be recognized in the published financial statements in the period in which the taxable revenue or tax deductible expense is includable in pretax income. If there is a timing difference in the recognition of the revenue or expense for tax and financial accounting purposes, its tax effect should be deferred until the timing difference reverses. The deferral of the tax effect is accomplished by reporting an adjustment to income tax expense in the income statement, together with a deferred tax debit or credit in the balance sheet.

Because the federal income tax rate based on the income tax expense reported in the income statement (the normalized rate) may differ from the rate based on the actual tax paid to the government (the flow-through rate), both rates are computed.

For each corporation, the computation of its federal income tax rate is calculated by dividing the total federal income taxes by the total net income before federal income taxes. The numerator used in determining the normalized federal income tax rate is the total federal income taxes pertaining to net income before extraordinary items, extraordinary items and prior-period adjustments. The denominator is the sum of net income after taxes, extraordinary items net of taxes, prior-period adjustments net of taxes and total federal income taxes computed for the numerator. The numerator used in computing the flow-through tax rate is the amount of current federal taxes pertaining to net income before extraordinary items, extraordinary items and prior-period adjustments; the denominator is the denominator derived above for the normalized rate. The 300 corporations were ranked by their federal income tax rates in descending order; the first half of these corporations was classified as high income tax rate corporations and the other half was classified as low income tax rate corporations.

Independent Auditor

A major purpose of the study was to determine the relationship between the independent auditor and adherence to APB Opinion income tax disclosure requirements for the annual reports to shareholders. These corporations were divided into nine groups by auditors—comprising each of the "Big-8" accounting firms and a ninth group made up of members of all other firms.

One of the generally accepted auditing standards is that "informative" disclosures in the financial statements are to be regarded as reasonably adequate unless otherwise stated in the [auditor's] report" [AICPA 1963, p. 16]. What this "reasonably adequate standard of informative disclosure" really represents is, for practical purposes, left to the judgment of the independent auditors. Different auditors may have different interpretations of the disclosure requirements of APB Opinions. Accordingly, an independent auditor may influence the extent of disclosure in financial statements on which he or she reports; the degree of influence may differ from one auditor to another.

Several researchers have attempted to determine whether relationships exist between particular independent auditing firms and particular reporting practices. The results of these studies are mixed. In a study of changes in the financial reporting of the investment credit by 300 companies between 1963 and 1964, Neumann [1968, pp. 8–16] found that the likelihood of a consistency qualification for an accounting change was *not* related to the particular auditing firm.

Smith and Smith [1971, p. 560] utilized communication theory as the basis for measuring the performance of communication of financial reporting. In measuring the adequacy of communications, two readability formulas were applied to financial statement notes of the largest fifty of *Fortune's* list of 500 industrial corporations for 1969. The formulas showed that a relationship does *not* exist between the identity of external auditors and the comprehension ease level of financial statement notes.

However, as part of a study of firms receiving an auditor's consistency qualification during the 1959–1968 period, Gosman [1973, pp. 5–6] concluded that sample companies audited by Price Waterhouse and Co. were more likely to receive a consistency qualification than sample companies audited by other CPA firms; Coopers & Lybrand's (formerly Lybrand, Ross Bros. & Montgomery) clients were less likely to receive such qualifications. The study consisted of 100 firms randomly selected from those listed in the 1969 *Fortune* 500.

Frishkoff [1970, p. 128] studied 1963 annual reports for changes in accounting methods to determine whether materiality affected the auditor's opinion in the case of inconsistencies. Threshold of materiality was set at 25 percent of net income—an accounting change resulting in at least a 25 percent change in net income was considered material. The size of the CPA firm performing the audit was not found to be a significant discriminatory variable.

Singhvi and Desai [1971, p. 133] found that a difference exists in the quality of disclosure in financial statements of firms audited by large and small CPA firms. In their study, the Big-8 were classified as large and the remaining CPA firms were classified as small. The empirical work in their study was limited to shareholder annual reports of 100 listed and 55 unlisted corporations for fiscal years ending between 1 April 1965 and 31 March 1966.

Corporate Size Influence

The major goal here was to determine whether a relationship existed between corporate size and adherence to APB Opinion income tax disclosure requirements. A positive relationship between the size of a corporation and the quality of disclosure may result for several reasons. First, smaller corporations are more likely to feel that full disclosure might endanger their competitive position. Second, large corporations tend to be more in the public eye and more subject to shareholders' and analysts' pressure for better disclosure. Third, large corporations may disclose more information than small corporations in order to minimize excessive pressure from antitrust regulatory agencies. Last, large corporations may disclose more information because they are more conscious of their social responsibility than small corporations.

The 300 corporations were ranked in descending order by size, using both rate assets for a first ranking and corporate revenues for a second ranking. The top 150 corporations were classified as large corporations and the bottom 150 were classified as small corporations.

The Singhvi and Desai study [1971, p. 131] found a positive relationship between the asset size of a corporation and the quality of disclosure. They used an index of disclosure including thirty-four items. Breaking corporations into eight size classifications, they found that the quality of disclosure in annual reports of each successive group was greater, on average, than the preceding smaller group.

Frishkoff's study [1970, p. 127] found that the larger the net worth of the firm, the less likely it was to receive a qualified opinion. The result was statistically significant at the .065 level. However, Stringer [1970, p. 136] took issue with the study; especially the indicated cutoff point of 25 percent for the relative effect on net income. He held that the proper cutoff should be 5 percent and, using this cutoff, that Frishkoff's data did not provide any significant evidence of discrimination between small and large companies.

Statistical Tests

The statistical test applied is a three-factor analysis of variance. The three factors are corporate federal income tax rate, corporate size and corporate independent auditor. Factor A, corporate federal income tax rate, has two levels representing high and low federal income tax rate corporations. Factor B, corporate size, has two levels representing large and small corporations. Factor C, independent auditor, has nine levels representing each of the Big-8 accounting firms and a ninth level for accounting firms other than the Big-8. The dependent variables are classificatory —adherence, nonadherence, indeterminance to APB Opinion disclosure requirements and the location of income tax expense in the income statement.

Twenty 36-cell tables were set up to compile the data on the various factors; i.e., with federal income tax rate measured two ways (flow-through and normalized) and corporate size measured two ways (revenues and assets), each of the five disclosure requirement variables required four tables, or a total of 20 tables. Before applying the ANOVA procedure to each of the tables, a weighted log transformation was made for each cell of each table. The logit transformation was selected because of unequal cell sizes in the tables.

Investment Credit Disclosure Requirement Analysis

The first disclosure requirement investigated concerned the investment credit. Corporations are required to disclose the amount and method of accounting for the investment credit, when material. Among the 300 corporations, 213 corporations provided information concerning the investment credit in their annual report for the year of study. A further search was made of the following year's annual report and the 2-years' 10-K reports, and a follow-up questionnaire was sent where a determination still could not be made. Forty-nine corporations either had no investment credit to report or an amount determined insignificant; eighteen corporations had an investment credit exceeding 5 percent of their normalized federal income tax and, thus, were in violation of the investment credit reporting requirement. No determination could be made for the remaining twenty corporations.

One corporation provided the dollar amount of the investment credit but was classified as a violator because of a lack of information as to the method used for recording the investment credit. The 20 indeterminate corporations were deleted and an analysis was made on the remaining 280 corporations. An analysis of the results from the ANOVA reveals that there is no relation between any of the three main factors (corporate size, corporate tax rate and independent auditor) and adherence or nonadherence to the APB Opinion investment credit disclosure requirement.

The one major point to be made from the investment credit research was that of the sample of 300 corporations, 18 were in violation of the APB Opinion reporting requirements and another 20 also may have been in violation.

Timing Difference Disclosure Requirement Analysis

Under *APB Opinion No. 11*, corporations are required to disclose the components of income tax expense for the period that represents taxes estimated to be payable currently and the tax effects of timing differences. These amounts may be presented as separate items in the income statement or combined in the income statement with disclosure of the components parenthetically or in a note to the financial statements.

From an analysis of the 300 corporations, 69 corporations did not present information so that both the flow-through and normalized income tax figures could be computed. Further analysis determined that forty-one of these corporations were in violation of the disclosure requirement; nineteen of the corporations were not in violation; and adequate information was not available on the remaining nine corporations to classify them as adhering or not adhering to the disclosure requirement.

To be classified as a nonadherer of the timing difference disclosure requirement, it was necessary that the undisclosed difference between the normalized tax expense and the flow-through tax be at least 5 percent of the normalized figure.

The nine indeterminate corporations were dropped from the computation, and an analysis was made of the remaining 291 corporations. An analysis of the results from the ANOVA reveals that little can be said about any relation between any of the three main factors (corporate size, federal income tax rate or independent auditor) and adherence-nonadherence to the timing difference reporting requirement. In no case did the level of significance approach the "rule of thumb," .05 level of significance—or even an expanded .10.

Although the adherence-nonadherence relationship was not found, it is significant that at least 13 percent of the sampled corporations were found to be in violation of this particular disclosure requirement.

Extraordinary Items Disclosure Requirement

The APB Opinions call for disclosure of income taxes pertaining to income before extraordinary items and the income tax effects of extraordinary items themselves. Of the 300 corporations, 208 reported no extraordinary items in their income statement. From the remaining ninety-two corporations, eighty-two were found to be adhering to the disclosure requirement, four were not adhering and insufficient information was available for a determination for six corporations. To be classified as not adhering to this disclosure requirement, the undisclosed income tax effect of the extraordinary items had to be at least 5 percent of the total normalized income tax.

Because only four corporations were found in violation of this disclosure requirement, the ANOVA was not performed on the data.

Tax Carryforward Disclosure Requirement

APB Opinion No. 11 requires disclosure of the amounts of any operating loss carryforwards not included in net income for the loss period, together with expiration dates. This disclosure requirement was found to apply potentially to only 35 of the 300 corporations. Thirty of these thirty-five corporations adhered to the disclosure requirement and three did not; information was not available to make a determination for two corporations. Nonadherence was considered to exist if any amount of carryforward was not disclosed in the annual report, regardless of magnitude.

Since the number of nonadherers was small, no ANOVA was performed.

Location of Income Tax Expense Analysis

The location of the income tax expense in the income statement also was analyzed. Income tax expense is deducted separately from net income before income taxes to determine net income after taxes, or is included among the operating expenses. Two hundred fifty-nine corporations reported the income tax expense separately, and forty-one corporations included it among operating expenses.

The relationship of corporate size (measured by assets but not revenues) and the location of the income tax expense in the income statement is statistically significant ($\alpha = .03$). As can be seen in Table 1, large corporations are more likely than small corporations to include the income tax expense as an element among the operating expenses.

Table 1
Size Measured by Assets

	Corporate Size	
Placement of Income Tax	*Large*	*Small*
Deducted separately	123	136
Among operating expenses	27	14

There is also a statistically significant relationship between federal income tax rate (either flow-through or normalized) and the location of income tax expense in the income statement ($\alpha = .01$). Table 2 shows that low federal-income-tax-rate corporations are more likely than high federal-income-tax-rate corporations to report income tax expense among the operating expenses. The figures are the same when federal income tax rate is measured by the flow-through or normalized rates.

Table 2
Federal Income Tax Rate

	Federal Income Tax Rate	
Placement of Income Tax	*High*	*Low*
Deducted separately	139	120
Among operating expenses	11	30

Implications of the Study

The implications of this study are many. First, a significant number of corporations did not adhere to selected APB Opinion income tax disclosure requirements. Since the sample was random, nonadherence can be projected to the population comprising the New York and American Stock Exchanges. If Stempf [1940, p. 454] is correct in contending that the accounting practice for the large corporation sets the standard for all, one wonders about the credibility of accounting disclosure practices of other corporations. A further question can be raised concerning the cause of these violations. If corporations are "required" to disclose these selected items, what is the basis for the nonadherences? Is the independent auditor remiss in granting a clean opinion in the face of nonadherence to these APB Opinion disclosure requirements? Who is the "policeman" to see that the APB Opinions disclosure requirements are enforced?

The nonadherence to the presently required APB Opinion income tax disclosure requirements makes prediction of future net income more difficult. Without the "required" information, let alone additional needed information, the determination of the expected future income tax rate of a corporation becomes a near impossibility. The required disclosures may help explain variations in tax rates and facilitate the prediction process.

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