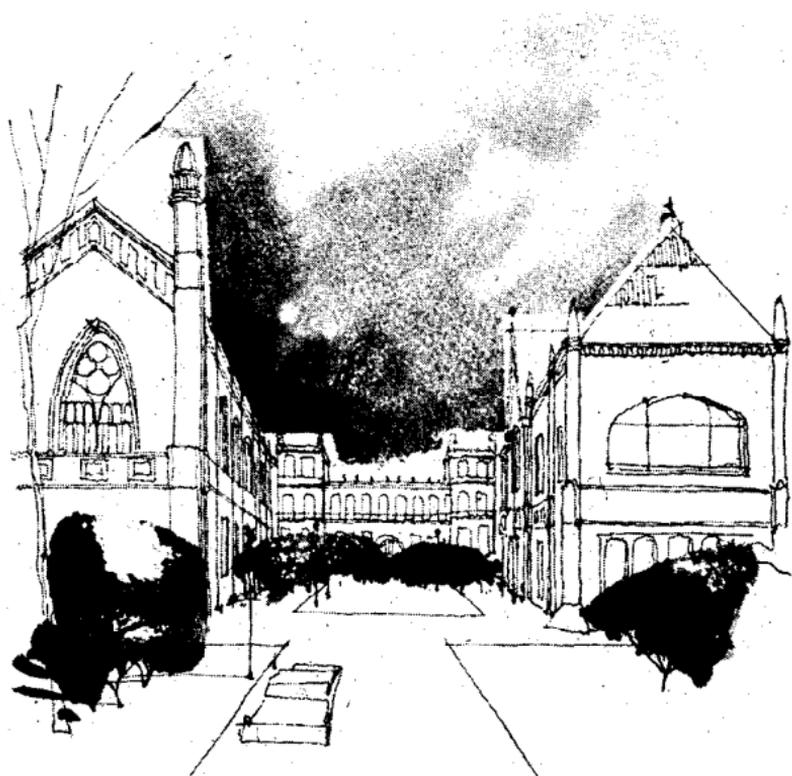


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The Meaning  
of Business  
Income: an  
International  
Comparison

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## The Meaning of Business Income: an International Comparison

PROFESSOR ARNOLD WEBER, addressing this group earlier in the year, said that Americans have often given an extra measure of respect to products of Western Europe—from English shoes to Italian actresses. This respect may arise from a variety of historical and cultural factors. We are all humbled by the knowledge that a portfolio of securities is no substitute for a thousand years of culture when it comes to distinguishing a Michelangelo from a Titian, or arguing with a Parisian cab driver. We may well ask whether the superior taste and finesse necessary to deal with these situations will be applied in other spheres of activity as well—in, for example, the definition and measurement of business income. English shoes and Italian actresses may bulge in the right places, but does European business income also bulge properly?

That this question is important—and here I am referring to the question about business income—is attested by many sources. A while back we ran a survey of a group of businessmen and a similar one of graduate students in business. We asked: “If you were a manager, or an investor, or a potential investor, and could have only one statistic about a given firm, what statistic would you want?” Over 90 per cent of the respondents in both groups said the statistic they would most want would be the income of the business for the year. One sage student said the statistic he would like would be the income—for the next year; clearly, he’ll go far.

More seriously, I would like to ask how unambiguous, how universal is the meaning of

this figure for business income? Does it mean the same thing wherever we go? And if there are differences, how do we explain them? How have dissimilarities in economic, political, and cultural factors in the several countries of Western Europe produced different meanings for business income? How do these differences affect the financial statements, and, more importantly, the business actions that are based upon these statements?

Two years ago John Kohlmeier and I started on a research project to study these questions; he deserves credit for most of what follows except the faulty exposition.

### ***Three Goals***

Basically, we set out to do three things.

First, to discover the decision rules for determining business income in four Western European countries—the United Kingdom, France, The Netherlands, and Sweden. These four were selected partly because they are significant industrial and trading nations with close ties to the United States, and partly because they typify major contrasting views of the measurement of business income. The fact that they are thoroughly delightful spots for on-the-scene personal research was a relatively trivial factor in their selection.

Second, we sought to discover how these differences would affect the amounts reported for income in two actual situations. To do this we obtained the cooperation of two Chicago-area manufacturing firms and their public accountants, and decided to carry out the analysis by a computer simulation. As Dean Shultz has observed, for research to have glamor nowadays it must use a computer. What we did was subject the actual transactions for five years—1959 through 1963—for each of the two American companies to the prevailing business income determination rules of the European countries. What

emerged from the computer for each company were five separate sets of five-year financial statements. These statements were the actual ones of the American firms, and the ones that would have appeared if they had used the accounting practices-the rules for determination of business income-of each of the four European countries. In other words, we had five sets of statements showing how identical transactions would have been recorded, and how business income would have been reported, in each one of these five countries.

Finally, knowing the magnitude of these differences we asked: What is likely to be the effect of these differences on business decisions?

Let's look at each of those points separately. In determining the meaning of business income in each country, three major institutional sources were consulted: the tax laws, the other relevant statutes, and the statements of professional accounting organizations. In the countries where the civil law concept is well established-France and Sweden in our example-tax laws play a dominant role in determining business income procedure. In these countries it is generally presumed that items will be deductible for tax purposes only if they are similarly reported in the financial statements. In common law countries, tax laws are less significant in determining accounting principles, since tax and accounting reports may, and frequently do, diverge.

A second source of business income determination rules are the statutes which specify the requirements of annual reports for various classes of companies-statutes similar to those which apply to the Securities and Exchange Commission in the United States. These statutes are usually more concerned with the form of financial reports than with the substance of valuation principles, but they do

have some effect on the reporting of business income.

Finally, the recommendations by accounting groups also help to determine accounting principles and the reporting of business income. In none of the four Western European countries does an accounting organization have the power of our Accounting Principles Board in recommending principles and in requiring disclosure of a failure to adhere to them, but nevertheless the effect of ruling by these foreign accounting groups can be felt.

In addition to these institutional sources, individuals involved with the meaning of business income were interviewed in each country. Included were business executives, officers of accounting and business associations, representatives of international accounting firms, and local accounting practitioners. These respondents were uniformly thoughtful and courteous, and our indebtedness to them is in no way diminished by the fact that the answers from different respondents within a country were frequently contradictory.

It became clear that the definition of income within a country was rarely uniform and so the procedures that follow are those which, in our judgment, are the ones most commonly used in each country-although others may disagree.

### ***English Procedures***

Turning to individual countries: British procedures for the determination of business income have been, as you might imagine, evolutionary and permissive. As befits the mother country of the common law, tax regulations are not dominant in shaping business income determination rules. As you may know, the first United Kingdom income tax law was enacted in 1842 as a temporary measure. The British are never anxious to hurry things, and April 1967 will see the 125th renewal of this

temporary legislation. Yet none of the 125 renewals have specified rules for the determination of business income; they have only set out methods for determining taxable income, and have implicitly contained a recognition that business income and taxable income may differ.

The Companies Acts in England, going back to 1844, have always exerted some influence on financial reporting. Even the most recent 1948 Act and the one that is proposed for action in the current Parliament, however, have been concerned primarily with the form and content of financial statements, and rather little with the actual measurement of business income. The establishment of rules for the determination of business income, to the extent that there is any persuasive force, has been left largely to the Institute of Chartered Accountants in England; and although they have tended to be permissive, their official **Recommendations** have been accorded substantial weight.

Although practice is far from uniform, it seemed to us that the traditional methods of valuation of inventories and plant at acquisition cost, with a FIFO cost flow assumption for inventories and a straight-line procedure for depreciation, are most commonly used in the United Kingdom.

### **French Methods**

Turning to France: French financial reports are largely determined by the provisions of the "Plan Comptable Generale" and the French tax law. The Plan was developed by a government Committee for Accounting Standardization in 1947 and has been revised several times: the version now in use was issued in 1962. It has been almost universally adopted by publicly-held companies, which explains the very substantial uniformity in French financial reporting.

The valuation rules of the Plan generally coincide with those found in the French income tax law; the tax regulations are virtually controlling for financial statement valuation.

An unwritten rule in French accounting is that you should never show more revenue or lower expense in the financial statements than in the tax returns. The force of this attitude is indicated by the French reaction to the concept of deferred taxes—a peculiar American innovation that says where a tax income and business income differ you should recognize a deferred tax liability. It is hard to explain and justify in the United States and doesn't export easily. When I queried one preeminent French practitioner about deferred taxes, he replied that the concept was unheard of in France. In fact, he went on to add that he would not know how to express the idea in the French language. I discussed this comment with Professor William Vatter, the distinguished scholar who was on the accounting faculty here for many years, and he observed that it was one of the strongest arguments he ever heard for making French the international language of accounting.

From 1945 to 1959 France, as you know, experienced a rapid inflation. During that time, French tax laws permitted a variety of devices that allowed firms to deduct the additional cost of replacing inventory at inflated prices. The last major revision of the tax laws in France occurred in 1959. This date coincides with the devaluation of the franc, and prices have been relatively stable since that time. The 1959 revision of the tax law removed almost all of the provisions permitting firms to adjust inventory expenses by the use of a general price level corrector.

The inflation had an even greater effect on the accounting for plant assets than for inventory. Many successive revaluations had been permitted for plant assets in France, and

all had been based on the application of a general price level corrector to plant costs. Even though the last revaluation was authorized by the 1959 tax law, it still affects pre-1960 property in use, and has had a substantial effect upon the reporting of income in France.

So if we were to summarize French policy, we would say that they adjust depreciation expenses for the changes in the general price level—a procedure that also has been followed to some degree in Belgium, Italy, and Japan.

### ***The Netherlands***

Turning to The Netherlands: there has probably been greater freedom in development of concepts of business income there than in any other country that we studied; neither the tax laws nor the Dutch Code of Commerce imposes limitations on what may be done in financial reporting. Thus the accounting profession has been free to make whatever adjustments in the reporting of income its members thought appropriate; and this freedom to develop principles has been exercised by a professional accounting community nurtured by extremely close connections with the Dutch academic institutions. The ties have been especially close with the university group of business economists, and—as we might anticipate—there has been a consequent focusing on replacement values in the determination of expenses and income. This has introduced a substantial judgmental element into the determination of income, but Dutch financial reports seem to be highly regarded by all groups—domestic and foreign.

In Sweden, income determination and financial reporting are probably more affected by national economic goals than in any other country. Efforts to smooth the swings of the business cycle dominate Swedish national economic policy, and these efforts apply with special force to tax policy. The linkage with in-

come determination comes from the civil law rule that taxable income will be determined from the taxpayers' financial records. In general, deductions can be claimed on the tax return only if they also appear in the financial reports.

How does this affect our major areas? Let us consider two-inventories and depreciation. Inventory accounting is completely dominated by the tax law; its basic provision permits a taxpayer to write down inventory to 40 per cent of cost or market, whichever is lower. Thus he can write inventory down by 60 per cent of cost, but the deduction from taxable income is permitted only if it also appears as an expense in the financial reports.

Accounting for depreciation compares in liberality and flexibility with inventory accounting. The firm has its choice of two methods: The first provides a 30 per cent declining balance rule—that is, you can write off 30 per cent of the undepreciated balance. The second alternative is a 20 per cent straight-line provision. Both alternatives have the effect of allowing the firm to write off all of its plant over a five-year period on its tax return if it also does in its financial records. In fact, if it doesn't take the full 20 per cent one year, it can take more than 20 per cent the next.

In addition to these, and as a special feature of the efforts to smooth the swings of the business cycle, the Swedish tax law provides for a system of investment reserves; corporations may deduct an amount equal to 40 per cent of their pre-tax income in the computation of taxable income as an investment reserve. That is, the firm figures its pre-tax income, then can deduct up to 40 per cent of that amount as an investment reserve; the remainder is subject to the income tax. But of course this can be done only if the investment reserve expense is shown as a deduction in the calculation of business income. If the investment reserve ex-

pense is claimed, an amount equal to 46 per cent (approximately the effective corporate tax rate) of the investment reserve must be deposited in a noninterest-bearing bank account in the state bank. Later, with the approval of the State Labor Board, the firm can withdraw the funds from this account to pay for new plant and equipment. Approval by the Labor Board of expenditure of investment reserve funds is likely to come only in periods of depressed business conditions.

It is apparent that the determination of business income in Sweden is a very flexible sort of thing. In fact, one Swedish businessman told me that at the end of the fiscal period the directors decide how much profit to report. He said they consider such things as the effect the reported profit may have on forthcoming wage negotiations, the amount of dividends they want to pay, and a proper relation between dividends and income; and when the directors have determined approximately what profit they want to report, they tell the accountant to find the easiest way to adjust the books to achieve the desired figure.

That was the businessman's way of explaining income determination in Sweden; a Swedish accountant explained it somewhat differently. He said, "In Sweden we start at the top and bottom of the income statement and work toward the middle, minimizing taxes along the way." Sales are determined by outside forces, and the directors decide on the size of the dividend they want to pay, so you get the top and the bottom. "Then," the accountant went on to say, "we determine the expenses to fit. The larger the reported income, the more income tax, so we maximize reported expenses, within the provisions of the law and recognizing the amount of dividends we want to pay."

How, then, shall we characterize the mean-

ing of business income in these four countries? The British approach to reporting business income is staid, traditional, but with results that are not conservative; the French approach is uniform and relies on general price level adjustments; the Dutch introduce replacement cost concepts and get respected judgmental reports of earnings; the Swedes make the reporting of business income serve the national economic goals of stability and growth, so that the concept of business income becomes almost unrecognizable.

Before turning to the measurement of the effect of these differences, it probably is necessary to note that there are also variations in the American definition of business income. In the United States, although we stick with the acquisition cost concept in inventory accounting, we do have a choice between LIFO (Last In, First Out) and FIFO (First In, First Out) flows; we also have a choice between straight-line and accelerated depreciation.

### *Measuring the Effect*

To return to the question: What effect do the differences among the accounting conventions of the countries involved have on reported business income? To answer this question, as I said earlier, we selected two Chicago firms as case studies. One of the two, a steel products producer, was very stable with little movement in sales or income during the five years studied-1959-63. Sales for the period varied between \$4.2 and \$4.7 million per year; net income as reported varied from \$190,000 to \$240,000 over the period, with no special growth factors.

We wanted to see whether the effect of differences in the definition of business income was influenced by growth, so our second company-an electric products manufacturer-was selected because of its rapid growth in the five years preceding 1963. In that period sales ad-

vanced from slightly over \$10 million to well over \$15 million, and reported income more than doubled, from a little over \$250,000 to well over \$600,000.

For each company, we summarized external transactions during the five-year period and converted these transactions into computer-usable form. The procedures actually used by each company were also translated into the computer program, and then permitted to operate on the transaction data.

After more frustrations than you have patience to listen to, we finally obtained print-outs of the financial statements of each firm that were within 2 per cent on all items of their actual financial statements, with most items being exactly reproduced.

Having established the validity of our model, we then put into the computer the set of decision rules for determining business income in each of the four foreign countries, and allowed these rules to operate on actual transactions of the U.S. firms. Twenty seconds later we had a complete set of financial statements for each U.S. company—that is, a balance sheet, an income statement, a cost-of-goods-sold schedule, and a statement of fund flows, both in dollars and as percentages of U.S. numbers. We had a series of financial statements—five different ones for each company, each series covering five years. We had, as you might infer, a mountain of data about each of these two companies. I will sketch here only in the very briefest terms what the data show; a fuller summary appears in the Autumn, 1966, issue of *The Journal of Accounting Research*.\*

Although our data contain detailed analyses of cost of goods sold and depreciation expense, let me focus on net income, and because of

\*“A Measurement of the Impact of Some Foreign Accounting Principles,” by Sidney Davidson and John M. Kohlmeier.

difficulties of approximating taxes in the foreign countries, I'll talk almost exclusively about net income before taxes.

The U.S. companies both used straight-line depreciation for financial reporting, although they did use accelerated depreciation for tax returns. The electric company used FIFO inventories, the steel company used LIFO, but to get comparability between them we converted the steel company data to a FIFO system. Hence we are talking about the U.S. companies using straight-line depreciation and FIFO inventory determination.

When we turn to the numbers, one fact stands out most clearly: The combination of FIFO and straight-line depreciation in the U.S. produces pre-tax income figures as large or larger than any other set. There were 40 figures for net income before taxes for the other countries and 38 of those were less than the comparable figure for the U.S. That is, we had four different countries, two companies, and five years, so we had 40 net income figures, other than the U.S. figures, and 38 figures of those 40 were incomes lower than were reported in the U.S.-and the two that weren't lower were exactly equal to them.

Swedish income figures were always the lowest of the group: even excluding Sweden, the pre-tax incomes in the other countries were between 81 per cent and 99 per cent of the U.S. figures for the electric company and between 87 per cent and 100 per cent of the U.S. figures for the steel products company. As we surmised, the growth of the electric products company meant that there was a greater deviation in its reported income as determined by foreign standards and U.S. standards than was true for the more stable steel products company. Swedish figures were far below all the others, varying for the electric products company from 19 per cent of U.S. income in one year to 59 per cent in another; for the

steel company the Swedish results vary between 50 per cent and 59 per cent.

One other point that becomes clear from this analysis is that the substitution of LIFO or accelerated depreciation in the U.S. tends to produce variations from FIFO and straight-line that are approximately as great as any shown by any foreign country's accounting principles, other than the Swedish ones. That is, if we take permissible alternatives within the United States they'll give us as great a difference in reported income as we get by substituting the financial principles of any country other than Sweden.

### ***Summary of Findings***

What can we say to summarize the findings? Let me point out first that any conclusions to be drawn start with the warning that the data relate only to the reports of two firms for five years; and while we noted no unique features about these firms, neither would we claim that they are typical-if there is such a thing as a typical firm. Also, the five-year period studied was one of price stability; it would be hazardous to predict the results of other companies for the same years, or these companies for other years, and it would be especially hazardous to predict the results for other companies for other years. Nevertheless, once this model is developed and the computer program is prepared, the inputs of data for other companies and other years can be handled with little difficulty. We are now moving ahead on this project, in the hope that we can extend the analysis and obtain additional generalizations. But the one primary generalization that these data do provide at the moment is that U.S. straight-line and FIFO income figures are higher than those reported anywhere else.

The data also suggest that stability of operations and prices tends to narrow the effects of differences in accounting procedures. In a per-

fectly stable world it doesn't matter too much what business income rules you use, and this we validated by putting in some estimated price level changes. That is, we sought to find what would happen if prices had been rising during this period instead of being stable, and we got some fairly substantial differences.

A third generalization that I think is warranted is that the wide departure of the Swedish figures from those of any other country, and their erratic movements, emphasize the danger of linking financial statements to tax reports, especially when tax provisions are an important element in the national economic plan. We have avoided that danger in the United States, except with regard to LIFO. I think the lesson to be learned is that when financial statements and tax returns must coincide, reported business income becomes the prisoner of the tax law and meaningful statements of business operations are destroyed.

Finally, there remains the question of how these differences in financial reporting affect individual investment decisions and the aggregate flow of capital. The unsatisfactory state of our present knowledge about the basis of investment decisions and capital movements prevents us from drawing any general conclusion. It is likely, though, that assessments of risk and income as evidenced by financial statements play some role in these decisions, perhaps a relatively important one. And if this is so, some quantitative measure of the effects of international differences in accounting principles may be helpful in dealing adequately with this most important problem.