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## VALUE ADDED—A TAX NEW TO THE UNITED STATES

Taxes are always in the news-but usually they aren't very new. The author discusses here a relatively new type of tax (which is being increasingly used in Europe and which is being discussed frequently today in the U.S.).

In these days of soaring expenditures at all levels of government, officials are constantly looking for new ways to increase revenue. Recently attention has been given to a form of taxation called the "value added tax," or VAT for short. It has been reported in the press from time to time that the Administration will propose a value added tax as a central element in a major reform of the U.S. tax system. The value added tax is becoming widely used in Europe, where it is usually known as TVA, the initials for the French words "Taxe sur la valeur ajoutée."

The value added tax is a deceptively simple form of taxation whose origins are somewhat obscure. The tax was adopted in France in 1954 and is now in effect in some of the countries of the European Economic Community (usually know as the Common Market) and will be in effect in all those countries by 1972.<sup>1</sup>

Legislation was passed in Japan calling for the adoption of a value added tax on January 1, 1952; but an argument over whether there was any distinction between a sales tax and a business tax based on sales and the nature of the distinction in case one existed caused the plan to be abandoned in 1954 without ever having been put into effect.<sup>2</sup> A newspaper article stated that the idea of the value added tax has been discussed on and off in Washington for the past 41 years which would give the origin of the idea a 1929 date.<sup>3</sup>

As explained in a number of popular articles, the idea of the value added tax appears to be simple. The implementation of the idea is much more difficult. This article will attempt Mary E. Burnet, CPA Rochester, New York

to explain what is meant by a value added tax, some of the problems encountered in implementing the tax, some of the economic effects of such a tax, and some of the advantages and disadvantages of a value added tax in comparison with other forms of taxation.

#### What It Is

The value added tax is one which ultimately rests on the consumer. Consumption taxes consist of three basic types: the sales tax which is paid on purchases made by the consumer (sometimes known as a single stage tax); the value added tax, which is a -multi-stage noncumulative tax; and the cascade tax, which is a multi-stage cumulative tax sometimes known as a general turnover tax. Under the value added tax system, tax is levied each time a product or its components are sold, but only on the value added at each stage.

From the point of view of the individual businessman, value added is considered to be the difference between the gross receipts from the sale of goods and services at one stage of production and distribution and the cost of raw materials and supplies, services, etc. acquired from businesses in the preceding stages. The value added consists of wages and salaries, payroll taxes paid for labor and management, taxes paid, rentals, royalties and interest payments made to carry on the business, and, finally, the net profit before income taxes.

# Methods of Implementing a Value Added Tax

There are various ways of calculating the

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tax on value added. Under the sales method, a manufacturer at the first stage of production and distribution pays a tax on the amount of his sales to a wholesaler and then adds the amount of the tax to his invoice. When the wholesaler sells to a retailer, the wholesaler subtracts the amount paid to the manufacturer including the value added tax and pays tax on the value he has added to the product. The retailer, in turn, subtracts the amount paid to the wholesaler including the value added tax and pays tax on the amount by which he also has increased the value of the product. The consumer pays the price charged by the retailer and gets no refund for any of the taxes paid by any of the businesses in the chain of production and distribution. Since the amount of the tax is included in each sale until the product reaches the consumer, the consumer is paying the full amount of the tax.

The table below illustrates the process of collecting the tax and also the total amounts paid at each stage of the production and distribution process. It is assumed that the rate of tax is 10%

Note that the manufacturer is not allowed a tax credit, but adds the amount of the tax he pays to his invoice to the wholesaler so that the tax does not cost the manufacturer anything. The wholesaler has added \$100 to the value of the merchandise and he pays a tax equal to 10% of the added value. At the same time, the wholesaler adds \$30 to his invoice to the retailer and receives credit for the \$20 he paid the manufacturer. The retailer adds \$125 to the value of the merchandise and he adds \$42.50 to his invoice to the consumer and receives a credit of \$30 for the tax he paid to the wholesaler. Although the total tax of \$42.50 is paid at different times by different businesses, the entire amount of \$42.50 is included in the purchase price of \$467.50 which is paid by the consumer. Since the consumer does not get a refund on any of the tax, he is paying the entire amount.

There are at least two ways of calculating the tax on value added. One method is the additive or sales method in which the basis for assessing the tax is determined by adding

the value-creating factors used in the production and distribution processes. Both the French and German taxes on value added follow the additive method. There is also a subtractive method known as the "tax credit" method in which taxes paid at previous stages are subtracted from the tax calculated on the gross sales of the company. Both the sales method and the tax credit method give the same results if the tax rates on goods and services are the same at all stages; but, if the rate at a second stage, for example, is higher than at the first stage, the tax credit method will result in a higher tax than will the sales method. This can be illustrated by the following table:

	Tax Credit Method	Sales Method
Sale by Manufacturer Tax rate 5%	\$100 5	$\substack{\$100\\5}$
Sale by Wholesaler Tax rate 10% Credit for prior tax Credit for prior sale Value added Tax rate 10%	\$150 15 <b>5</b>	\$150 $\frac{100}{$50}$ 5
Net tax payable Total tax		\$ 10

In order to avoid the impossible situation of having taxes paid on each transaction, taxable entities are required to remit the tax at intervals, usually once a month. Information must be given for the tax payable and for the credits due the taxpayer for the preceding period.

#### Credit for capital goods and general costs

Some value added tax plans call for deductions for depreciation on capital goods and for general costs. Capital goods would be those normally classified in a firm's balance sheet as property, plant, and equipment. General costs would include purchases of goods and services which are necessary for the manufacture

	Value of Goods Invoiced		Total Amount of Invoice		
Sale by Manu- facturer Sale by Whole-	\$200.00	\$20.00	\$220.00	-	\$20.00
saler Sale by Re-	300.00	30.00	330.00	\$20.00	10.00
tailer	425.00	42.50	467.50	30.00	$\frac{12.50}{\$42.50}$

or distribution of the goods but which are neither raw materials nor capital goods.

Credit for value added taxes paid on capital goods can be given immediately in the year in which the goods are acquired, or the tax paid can be deducted on an amortization basis which would spread the refund of the tax paid over a number of years. Some believe that theoretically the amortization method of granting tax credits for capital goods is preferable to the immediate credit method but that the amortization method gives rise to serious accounting problems. The amortization method also acts as a deterrent to new investment because business suffers a loss of interest when the value added tax paid on capital goods is not refunded immediately.

From an economic point of view, granting tax credit on an amortization basis has a stabilizing effect on the economy because the tax credit will be spread over the useful life of the capital goods. If the useful life extends over a number of years, it will tend to have an anticyclical effect since tax credit for capital goods purchased during a period of increasing business activity may be received by the purchasers in a period of decreasing business activity.

On the other hand, the granting of an immediate refund of the tax paid on capital goods tends to be destabilizing since both the tax levy and the credit for prior tax paid are dependent on the volume of new investment. Fluctuations in new investment will vary closely with changes in the economic situation since increased business activity usually results in increased investment and decreased business activity causes a reduction in investment with the result that the swings in the business cycle are increased. During the accelerating phase of the business cycle, if taxes paid on capital goods are refunded immediately, businesses will receive tax credits at a time when, presumably, business is profitable and will not receive tax credits during a period of decreasing business activity when a tax credit would be helpful.

From a fiscal policy point of view, the amortization method of granting tax credit on purchases of capital goods seems preferable. On the other hand, if the value added tax is regarded as a general consumption tax, the system of immediate tax credit for tax paid on capital goods is felt to be more suitable than the amortization method. The European Economic Community Commission regards the value added tax as a general consumption tax and chose immediate credit for prior taxes paid on capital goods even though capital goods are not consumed immediately.<sup>4</sup>

#### Economic Effects of a Value Added Tax

Before a value added tax is adopted, the economic effects of such a tax should be considered. If a value added tax were levied in addition to existing taxes, the price level would go up roughly in an amount equal to the tax. A more serious problem is the regressive nature of value added taxation. A tax paid by consumers falls more heavily on lower income groups who spend a greater part of their income on consumer goods than do people in higher income brackets. A change from corporate income tax to a value added tax could cause total taxes to fall even more heavily on the consumer than is true at present. Dan Throop Smith points out that, in both economic theory and in popular opinion, the belief has been held that the corporate income tax is paid by the corporation and cannot be shifted forward to consumers. Although it is difficult to determine the extent to which income taxes can be shifted forward, the income tax may be regarded as an element of cost with the result that business decisions on prices and on investment in capital goods are based on planned rates of return after taxes. The tax is thus shifted forward to the extent that prices are set to meet a planned rate of return. If a value added tax were substituted for the corporate income tax, the increase in prices would depend partly on the extent to which consumers are paying the corporate income tax through higher prices than would exist otherwise.<sup>5</sup>

Depending on the amount by which the corporate income tax and the value added tax are shifted forward to the consumer, the substitution of a value added tax for a corporate income tax will be inflationary or deflationary. Although the value added tax is paid by the consumer, businesses engaged in various stages of the production and distribution processes might lower their prices in order to meet competition and thus, in effect, absorb part of the value added tax. Henry Aaron has calculated that, with a value added tax of 6.21% substituted for the income tax and an assumption that half of an income tax or value added tax would be shifted to the consumer, the price index of 32 classes of items purchased would be 101.1%, which would be inflationary. If it is assumed that 100% of both income and value added taxes are fully shifted, with a value added tax rate of 6.21%, the price index of the same 32 classes of items would be 99.9%, which would be slightly deflationary.<sup>6</sup>

Another economic effect of less importance than the shifting of tax burdens to consumers would be the tendency for firms to integrate vertically. If a manufacturer both produced and sold his product to the ultimate consumer, the tax would be collected only at the time of the final sale. To the extent that vertical integration permitted products to be produced and sold more cheaply, the amount of the tax paid by the consumer would be less. The accounting problems also would be less because the tax would be collected only at the time of the final sale. If the integration took the form of a manufacturer owning a wholly owned subsidiary for distributive purposes, the tax would probably have to be paid on the transfer from the manufacturer to the sales organization, but the wholesaling function would be eliminated and the price to the consumer might be less. A great deal, of course, depends upon the efficiency with which the corporation conducts its business.

Walter Missorten also points out that the economic effects of a value added tax will vary depending upon the types of businesses and professions which are required to pay the tax. It is sometimes contended that agriculture should be excluded, partly because many farms are small and records kept by some farmers are inadequate.7 It may be questioned whether agriculture should be excluded in this country, where farms are becoming larger and are sometimes million dollar corporations. Under the proposal of the Council of the European Economic Community, agriculture would be included in the value added tax system and agricultural products would be taxed at a reduced rate or rates.

It is also sometimes argued that retailers should be excluded from the value added tax. Their inclusion would add considerably to the work of tax administration; but if it is decided to exclude retailers, the question arises as to how the retail function should be separated. Some large retailers have their own manufacturing plants and sometimes manufacturers have their own retail departments. Missorten also points out that, if retailers were excluded from the value added tax, other businesses might cease to purchase supplies from them since the retailers would not be able to list the value added taxes on the invoices they send out and the buyer would have no possibility of taking credit for all taxes paid on the goods at prior stages.<sup>8</sup>

#### The Value Added Tax and International Trade

One reason for the interest in the value added tax in the United States is that it is considered to be an effective way of raising revenue. Another reason is that countries which have adopted a value added tax have an advantage over the United States in international trade. Under the General Agreement on Tariffs and Trade, value added taxes can be deducted from the price of any product exported, but it is not possible for United States exporters to deduct a portion of the income taxes they pay from the price of goods sold in international trade. At the same time, countries having a value added tax system add an amount known as a border tax to the price of imports equal to the value added tax charged on the same items produced domestically. Since the United States does not have a value added tax, such an amount cannot be added to the prices of goods imported into this country.

#### Advantages of a Value Added Tax

The following are some of the alleged advantages of the value added tax in comparison with our present system of taxation.

- It is believed that a low rate value added tax would bring in enormous amounts of money. With U.S. consumer spending on goods and services amounting to about \$600 billion annually now, an across-theboard 10% rate would yield \$60 billion.<sup>9</sup>
- 2. The value added tax would help the United States in international trade especially with countries that have value added taxes under which exports are exempt from tax and imports are taxed in an amount equal to the tax on domestically produced products.
- 3. Dan Throop Smith believes that the value added tax has a very great advantage not

FROM OUR PAST

"... Our plant was one of those which the O.P.A.C. picked for price control figures in the frame industry. In order to give them the cost figures they wanted, I made quite a study of the cost problem involved ..."

THE WOMAN CPA February 1942

And now thirty years later we wonder if that plant is once again making a study of its costs to support a price increase request to the Price Commission established under Phase Two.

only for business but for the country. The corporate income tax penalizes companies that use extensive capital as compared with those that use extensive labor. This appears not to be in the national interest because the justification for high wages is based on increasing productivity and increasing productivity requires more intensive use of capital.<sup>10</sup>

- 4. The value added tax tends to curb tax evasion since it is collected on the basis of the bills that businesses pay. Each businessman in order to justify refunds on the value added tax he has paid on his purchases will have to be able to prove in detail what he bought from each supplier and sold to each customer. There is, however, less evasion of income taxes in this country than there is in some of the European countries, which makes the advantage of curbing tax evasion here less important than it is in Europe.
- 5. In comparison with the corporate income tax, some persons feel that the value added tax is fairer because the income tax is levied only on net profits. Profitable companies have to pay for their success while those that are inefficient and lose money are not taxed.

#### Disadvantages of a Value Added Tax

The alleged disadvantages of the value added tax include the following:

- 1. Value added is not a precise concept. It always needs to be defined. It does not seem, however, that this is an insurmountable problem. Many things in our federal income tax law and regulations are not precise. Differences of opinion between taxpayers and the Internal Revenue Service are often settled in the courts.
- 2. The unions and consumer organizations have objected to the regressive nature of the value added tax. It is believed that the tax would fall hardest on the low income groups who will be spending all of their income. The tax is also objected to by those who believe that corporate income taxes are paid by corporations and are not reflected in retail prices.
- 3. It is said that the value added tax is expensive to administer and would require extra personnel to collect it. The Neddy Council in Great Britain studied the administration of the value added tax and concluded that the number of extra civil servants needed in that country would

be about 7,000. The purchase tax is collected at 65,000 points, but the value added tax would be collected at 2,000,000 points, which would require the extra 7,000 employees. If the entire retail and consumer services sector were excluded with a major loss of yield, the number of collection points would be reduced to 1,000,000.<sup>11</sup>

- 4. Some of the difficulties of including certain segments of the economy such as agriculture, retailers, etc. have been pointed out. Suggestions have also been made that, in order to keep the tax from weighing so heavily on low income groups, food and other basic necessities should be taxed at lower rates than other items. These exclusions and low rates, however, would result in much less tax being collected than if a 10% rate were applied across the board.
- 5. The value added tax would cause an increase in the cost of living equal to the amount by which prices were increased to cover the tax. It is interesting to note that an article in "The Economist" in June 1968 stated that the value added tax was expected to come into force in Holland on January 1, 1969, and that the official estimate was that consumer goods prices would rise by about 1% on the average.<sup>12</sup> An article in the Rochester (New York) "Times-Union" in December 1970 reports that when the tax was introduced in Holland on January 1, 1969, prices on the average rose 5% in three months. It was felt that retailers often used the value added tax as an excuse to raise prices far more than the tax justified.<sup>13</sup>
- 6. A study by Henry Aaron indicates that the impact of the value added tax would differ sharply from industry to industry. The study involved the differences in the degree to which the value added tax and the corporate income tax are shifted forward to the consumer. Agriculture would be penalized by the change to value added tax under most shifting assumptions unless value added in agriculture were effectively excluded from the tax base. Also under the most plausible uniform shifting assumptions, transportation and warehousing, oil and gas, hotels and services, construction, lumber and wood products, and auto repair services

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would face higher taxes and the need to raise prices and/or to lower payments to one or more factors of production.

On the other hand, utilities, communications, automobiles, aircraft and other transport equipment, chemicals, plastics, drugs and paints, radio and TV broadcasting, tobacco, and ordnance would enjoy major reductions in tax liabilities and the ability to lower prices and/or to raise payments to one or more factors of production.<sup>14</sup>

Price increases and decreases in various industries would cause changes in demand and would cause adjustment problems for both capital and labor.

7. Companies which make no profits would be required to pay a tax on the value they add to the products they produce even though they have not made a profit.

#### The Report of The President's Task Force on Business Taxation

On September 22, 1969, the President announced the establishment of a Task Force on Business Taxation, with John H. Alexander of Mudge, Rose, Guthrie, and Alexander as chairman. The Task Force was to concentrate on the role of business taxes in promoting economic growth, full employment, and a strong progressive economy. The emphasis was to be on long range goals for business tax policy.

In a report issued in September 1970, the Task Force concluded (with two members dissenting) that it is not in favor of adopting a value added tax system as a substitution in whole or in part for one or more of the existing Federal taxes. The Task Force did conclude, however, that, if the need for substantial

<sup>1</sup>The countries currently making up the Common Market are West Germany, France, The Netherlands, Belgium, Luxembourg, and Italy. In 1973, England, Ireland, Denmark, and Norway will become members.

will become members. <sup>2</sup>Clara K. Sullivan, "The Tax on Value Added" (New York: Columbia University Press, 1965), p. 5.

<sup>3</sup>William Ringle, Rochester (New York) Democrat & Chronical, June 28, 1970.

<sup>4</sup>Walter Missorten, "Some Problems in Implementing a Tax on Value Added," National Tax Journal 21 (1968), p. 403.

<sup>5</sup>Dan Throop Smith, "Federal Tax Reform" (New York: McGraw-Hill, 1961), pp. 189-190.

<sup>6</sup>Henry Aaron, "Differential Price Effects of a Value Added Tax," National Tax Journal 21 (1968), pp. 166-167. additional Federal revenue should ever arise, the government should turn to the value added tax or to some other form of indirect taxation rather than to an increase in rates of the corporate or personal income tax.

One dissenting member of the Task Force, Dan Throop Smith, believes that the need for a value added tax in the United States is so clear that it should be introduced at the first possible opportunity in spite of the problems inevitably associated with it or with any other tax.

The other dissenting member of the Task Force, Norman B. Ture, feels that substitution of the value added tax for the corporation income tax should be one of the major avenues of long-run reform of the Federal tax system. He believes this substitution should be begun at the earliest possible moment and should be phased in over a five to ten year period.<sup>15</sup>

#### Conclusion

The question whether the United States should adopt a value added tax is not an easy one to answer. It is impossible, in fact, to give a definite answer. The tax appears to answer Europe's needs more than it does those of the United States. West Germany, for example, had a general turnover tax before the introduction of the value added tax, which means that a cumulative tax was replaced by a noncumulative tax. One of the most urgent reasons for adopting a value added tax is to place the United States in a more advantageous position in regard to international trade. Domestically, adoption of a value added tax might bring in many more millions of tax dollars, but on the other hand it might also open a Pandora's box of social and economic problems. If the tax were adopted, it would seem advisable to introduce it at a low rate and to study its effects carefully before considering it as a replacement for the corporate income tax.

<sup>7</sup>Walter Missorten, Supra note 4, pp. 406-407. <sup>8</sup>Ibid, pp. 406-408.

<sup>9</sup>Richard F. Janssen, Wall Street Journal, October 12, 1970.

<sup>10</sup>An interview with D. T. Smith, "A Replacement for the Income Tax?" Nation's Business, (April 1969), pp. 38-41.

<sup>11</sup>Value Added Tax-Studied by the Converted," The Economist, December 9, 1968.

<sup>12</sup> "Dutch Taxation–Solvent for the Coalition," The Economist, June 22, 1968.

<sup>13</sup>Carl Hartman, Rochester (New York) Times-Union, December 28, 1970.

<sup>14</sup>Henry Aaron, Supra note 6, p. 172.

<sup>15</sup>Business Taxation—The Report of The President's Task Force on Business Taxation, September 1970, pp. (v), 72, 75.