

# The Value-Added Tax: Cash Cow Or Pig in a Poke

*By Glenn H. Miller, Jr.*

Earlier this year a conviction emerged that future federal budget deficits had been set on a downward path. That conviction stemmed from five-year budget projections made by the administration and by the Congressional Budget Office. Those projections reflected, among other things, expected lower interest costs and lower defense outlays, along with continued projections of strong economic growth. The conviction was reinforced by the adoption of the Gramm-Rudman-Hollings Act (GRH) and its first-year implementation.

Now, in the second half of 1986, attitudes about the prospects for deficit reduction are less sanguine. Estimates of expected budget deficits in the near term are ratcheting upward. Economic growth is slower than expected, the GRH sequestration procedure has been declared unconstitutional, and uncertainty about controlling budget deficits has increased.

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Most of the designs for deficit reduction, including GRH, emphasize restraints on spending growth. But decisions on what spending to slow or to cut are difficult, as priorities are hard to establish.

A possible role for revenue increases in reducing deficits is mentioned from time to time, but there has been a reluctance to push for such increases in the current environment. Inseparable from the question of the desirability of a revenue increase is the question of what revenue source might be tapped. Trial balloons were raised earlier this year for various revenue measures such as a tax on imported oil, a tax on gasoline, and a tax on all energy consumption. The current tax reform is intended to be revenue-neutral and makes no direct long-run contribution to deficit reduction. And with tax reform substantially changing the bases and rates of both personal and business income taxes, it seems unlikely that those revenue sources would be used for deficit reduction.

The value-added tax (VAT) is usually included in any list of potentially large revenue sources, and the possible adoption of a federal value-added

tax continues to be discussed.<sup>1</sup> This article does not espouse a revenue increase to help reduce the deficit. Nor does it support the value-added tax as an appropriate form of revenue enhancement. Rather, the article summarizes information about the VAT so the reader will be more informed about this somewhat novel tax.

The first part of the article describes and explains a value-added tax—what it is and how it works. Included are discussions of different types of a VAT, different methods of calculating a VAT, and estimates of the potential revenue a VAT might produce in the United States. The second part discusses a VAT in relation to the objectives of a good tax system—neutrality, fairness, and simplicity. Later sections deal briefly with other issues and concerns, including the relation of a VAT to inflation, to the size of government, to federal-state relations, and to international considerations. In the final section, a comparison is made between a VAT and a federal retail sales tax.<sup>2</sup>

### **What is the value-added tax and how much will it produce?**

In a modern economy, production generally occurs in several stages. As an item moves through the various stages of production and distribution, its value is increased as a result of each firm's activities in the process. For example, when a firm acquires materials, supplies, and components and processes them using capital goods, labor, and

management, it adds value to the product it sells. This addition to the value of the product is the firm's "value added," which is computed as the value of its output less the cost of inputs it purchases from other firms. Value added can also be computed by adding up the firm's payments to the factors that generate its addition to the value of the product—wages, interest, rent, and profit. A value-added tax is a tax levied on the amount of value added by a firm. Firms at every stage—

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raw materials producing, manufacturing, wholesaling, retailing—owe the government a tax assessed on the amount of their value added.

Proposals for a value-added tax trace back to the early 1920s in both Germany and the United States. Current use of the VAT traces primarily to the formation of the European Economic Community (EEC). Recognizing that establishment of a common market meant that the nations' tax systems could not be permitted to act as trade barriers, the EEC sought tax harmonization through the adoption of value-added taxes in all its countries. The necessary border tax adjustments could be readily made with a destination principle VAT that taxes a product where it is consumed. Taxes paid by a firm on exported products are refunded, and the tax is collected on imports. In this way,

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<sup>1</sup> For example, Ernest Conine, "Issue of Real Tax Reform Has Only Been Postponed by Current Versions," *The Kansas City Star*, July 10, 1986. "Congress will soon find itself having to deal with the question [of real tax reform] again. And when that time comes, it will not be surprising to find the so-called value-added tax, or VAT, being taken very seriously indeed."

<sup>2</sup> The article focuses on issues and concerns regarding the VAT as a means of increasing revenues to reduce the deficit—that is, as a supplement to existing taxes rather than as a substitute for an existing tax. But if increasing revenues were chosen as a means of reducing the deficit, a VAT is not the only tax that could be considered. Thus, in the sense that the effects of a VAT should

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be compared with the effects of raising the same revenue from other taxes, discussion of a VAT as a way of raising additional revenue is like discussing the substitution of a VAT for another tax. While the explicit discussion of such a substitution is beyond the scope of this article, such comparisons are available. For example, see Charles E. McLure, Jr., "The Tax on Value Added: Pros and Cons." Complete citations are found in the list of selected readings at the end of the article.

traded goods and domestic goods compete on an equal tax basis in the country where they are consumed.

Another important feature of the adoption of the VAT by many European countries in the 1960s and 1970s was its substitution in many instances for an inferior indirect tax, the cascade turnover tax. This tax was imposed on total sales of firms at every stage of production, not just on their value added. Ultimate tax liability depended, therefore, on the number of times a product "turned over" before final sale. Accurate border tax adjustments were not possible, products going through many stages of production and distribution were discriminated against, and vertical integration of production was rewarded.

### *Types of value-added tax*

An important question in implementing a VAT is how to treat capital goods purchases in determining tax liability. Answering this question gives rise to two types of value-added tax. One is the consumption type. This type allows firms to deduct all capital goods purchases, as well as other nonfactor input purchases, from the value of their output in determining their value added and hence their tax liability. For the economy as a whole, the tax base is total consumption, and the VAT is an indirect consumption tax. The other type of VAT is the income type. This type imposes a tax liability on net purchases of capital goods by allowing only the deduction of depreciation expenses rather than deduction of the capital goods' full price at time of purchase. Because this approach leaves net investment subject to tax, the tax base is equivalent to net national income.

The destination principle, consumption type of value-added tax is the form of VAT now used in Europe. As it is also the kind of value-added tax being discussed for possible adoption in the United States, this article focuses on that form of a value-added tax.

### *Methods of calculating a value-added tax*

A firm's value-added tax base is its contribution to the value of its output. That contribution can be determined either by subtracting from the value of its output the cost of inputs such as materials, supplies, and components purchased from other firms, or by summing its factor payments of wages, rent, interest, and profit. It follows, then, that there are two fundamental methods for calculating value-added tax liability—the subtraction method and the addition method. Tax liabilities are the same either way.

In the addition method, factor payments are summed and the appropriate tax rate is applied to the total, giving the firm's tax liability. The addition method is usually associated with the income type of VAT.<sup>3</sup> Because of the article's concentration on the consumption type of VAT, the addition method is not pursued further here.<sup>4</sup>

In the subtraction method, a firm subtracts the cost of its purchased inputs, including capital goods purchased during the period, from the value of its sales to get the tax base and computes its tax liability by applying the appropriate tax rate. This method is illustrated in the first part of Table 1, with a VAT rate of 10 percent. The table shows that a VAT is a sales tax collected partly at every stage of production. It also shows that the tax is levied not on total sales at a given stage but only on the value added in that stage.

The subtraction method of calculating a VAT shown in the first part of Table 1 is not the favored method of implementation, either in practice in European countries using the VAT or in discussion of a VAT to be adopted in the United States.

<sup>3</sup> According to McLure, the addition method is useful only with the income type VAT. "Economic Effects of Taxing Value Added," pp. 159-160.

<sup>4</sup> For more discussion of calculation methods, see *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," pp. 7-11.

**TABLE 1**  
**Calculation of value-added tax liability**  
**at a 10 percent rate**

	Stage of Production				Total
	Raw Materials Producer	Manufacturer	Wholesaler	Retailer	
<b>I. Subtraction Method</b>					
1. Sales	200	400	700	1,000	2,300
2. Purchased Inputs	0	200	400	700	1,300
3. Value Added (line 1 less line 2)	200	200	300	300	1,000
4. Value-Added Tax (10% of line 3)	20	20	30	30	100
<b>II. Credit Method</b>					
5. Sales	200	400	700	1,000	2,300
6. Tax on Sales (10% of line 5)	20	40	70	100	230
7. Purchases	0	200	400	700	1,300
8. Tax on Purchases (10% of line 7)	0	20	40	70	130
9. Value-Added Tax (line 6 less line 8)	20	20	30	30	100
<b>III. Addendum:</b>					
<b>Retail Sales Tax of 10%</b>					
10. Retail Sales Tax	0	0	0	100	100

The favored method is a variant of the subtraction approach called the credit (or invoice) method. In the credit method, illustrated in the second part of Table 1, a firm computes its VAT liability on its total sales at the 10 percent rate (line 6). It then deducts the VAT already paid on its purchases (line 8), an amount shown on the invoices provided by its suppliers. In this way, the firm is given a credit for taxes paid on its purchases. This credit reduces the tax liability computed on its total sales to an amount equal to the tax on its value-added base (line 9). Thus line 4 and line 9 are equal.

Some have suggested that the credit method makes administration of a VAT easier and encourages compliance, both because credits and payments can be readily checked and because taxpayers at every stage will insist on evidence that their suppliers have paid the VAT, since that is the source of their credit. Others believe, however, that this feature is overrated. They say it contributes little toward making the VAT a simple, self-enforcing tax.

The addendum to Table 1 illustrates a matter of importance in understanding the nature of a value-added tax. Line 10 shows that the same

revenue can be raised by levying a single-stage indirect consumption tax, the retail sales tax. The consumption type VAT, with capital purchases fully deducted and all the taxes levied at earlier stages shifted forward to the final consumer, is equivalent to a retail sales tax levied at the same rate.<sup>5</sup> Thus, it has been observed that "...the consumption-based VAT is best seen as merely an alternative means of collecting this more familiar tax."<sup>6</sup>

#### *How much revenue from a U.S. value-added tax?*

The value-added tax has some of the appearance of a cash cow for the revenue system. As a starting point for some notion of its revenue-producing power, suppose that the value-added tax were applied at a single rate to the consumption of all goods and services. The maximum tax base would be total personal consumption expenditures (PCE) in the national income and product accounts. In 1985, PCE amounted to nearly \$2.6 trillion. Thus each percentage point of a VAT levied on that total would have yielded about \$26 billion in revenue. At a 5 percent rate, the tax would have produced over \$125 billion.

It is unrealistic, however, to think that total PCE would be the base for a VAT. Because of ad-

ministrative difficulties and reasons of public policy, considerable amounts of consumption would probably not be considered taxable under a value-added tax. It would be administratively difficult to tax the consumption of owner-occupied housing, for example, and inequitable to tax the consumption of housing by renters if homeowners were not taxed. Medical care services and food consumed at home are important examples of possible exclusions from the tax base for public policy reasons—the easing of the tax burden on lower income groups. Some estimates suggest that with limited exceptions, mainly for administrative reasons, a realistic value-added tax base might be 75 to 80 percent of total PCE. With more liberal exceptions, many for equity or other public policy reasons, a realistic VAT base might be only 45

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*Even with considerable amounts of consumption not taxable, a U.S. value-added tax could be a powerful revenue producer.*

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to 50 percent of total PCE. According to these estimates of the potential VAT base, each percentage point of a VAT levied in 1985 would have produced about \$20 billion of revenue in the limited exceptions case and about \$12 billion in the liberal exceptions case. On the basis of these assumptions of the size of the base, a 5 percent VAT rate would have yielded \$100 billion and \$60 billion in revenue, respectively.

The Treasury Department, in making some forward-looking estimates of the yield of a VAT, projected total PCE of \$3.1 trillion in 1988. Based on a combination of administrative, social, and distributional considerations, the estimate of a realistic comprehensive value-added tax base for 1988 was 77 percent of PCE, or \$2.4 trillion. Further exclusion of expenditures for food consumed at home and household utilities reduced the

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<sup>5</sup> While tax law determines where the legal liability for payment is placed (statutory incidence or impact), the actual burden of a tax may finally come to rest elsewhere. The place of final burden is called the point of economic incidence, and the process of transferring the burden from point of impact to point of economic incidence is called shifting. The point where a tax burden comes to rest may—and often does—differ from the point where it is imposed, as businesses and individuals act in response to the imposition of the tax. Both a consumption type VAT and a retail sales tax have their statutory incidence on businesses, which are required to remit taxes to government, but both are believed to be fully shifted forward to final consumers as the prices of goods and services rise by the amount of the tax. See Richard A. Musgrave and Peggy B. Musgrave, *Public Finance in Theory and Practice*, pp. 376-380, 441-444.

<sup>6</sup> Charles E. McLure, Jr., "Value Added Tax: Has the Time Come?" p. 203.

estimated VAT base to 55 percent of PCE, or about \$1.7 trillion. These projections and estimates suggest a 1988 yield for each percentage point of VAT amounting to about \$24 billion with limited exceptions and about \$17 billion with more liberal exceptions. A 5 percent VAT would produce about \$125 billion and \$85 billion, respectively, in revenue in 1988.<sup>7</sup>

While the value-added tax has the appearance of a potential cash cow for the revenue system, it may also have the characteristics of a pig in a poke. Adoption of a VAT without careful consideration could produce unexpected results. The rest of the article discusses the VAT in relation to the objectives of a good tax system and in relation to some other issues and concerns.

### **A value-added tax and the objectives of a good tax system**

A good tax system is expected to be fair, neutral, and simple. The burden of raising revenue should be distributed as fairly as possible, and ideally would be perceived to be so. Taxes should be as neutral as possible in terms of minimizing their influence on economic decisions and behavior. Tax administration and taxpayer compliance should be as simple and efficient as possible.<sup>8</sup>

#### **Neutrality**

The consumption type value-added tax levied at a uniform rate on all goods and services would not distort consumption choices, since it would be applied evenly to all consumption goods. Nor would it distort decisions among methods of pro-

duction or forms of business organization, since all producers would be covered. A VAT of the kind discussed here is also neutral between consumption now and consumption later—that is, between consumption and savings. Imposition of a value-added tax would not interfere with a person's decision to consume or to save, because the VAT does not affect the net rate of return on saving.<sup>9</sup> Like most taxes, however, a VAT would not be neutral between work and leisure.

As already noted, however, some goods and services—and perhaps some businesses—would not be taxed for administrative or public policy reasons. Furthermore, nearly all European countries using the VAT apply differential rather than uniform rates. Some commodities considered essentials are taxed at lower than standard rates, while other goods considered luxuries are taxed at higher than standard rates. Adoption of a VAT in the United States would require decisions between differential and uniform rates as well as decisions on what consumption to exclude from the tax base. A movement away from taxing all consumption at a uniform rate weakens the neutrality of the VAT, leading some consumption to be preferred for tax reasons.

#### **Fairness**

The idea of fairness in taxation generally embraces the notion that the tax burden should be distributed on the basis of ability to pay. The consensus in the United States still appears to be that the ability to pay criterion is best met by a progressive tax that requires those with higher

<sup>7</sup> *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," pp. 85-87. For detailed discussion of the difficulties involved in applying a VAT uniformly across the economy, see pp. 47-84.

<sup>8</sup> See Glenn H. Miller, Jr., "Alternatives to the Current Individual Income Tax," p. 4, and references cited.

<sup>9</sup> "[The consumption type VAT] does not distort the choice of whether to consume now or later because it applies at equal rates to consumption at either point in time (in the absence of statutory rate changes)." McLure, "Economic Effects of Taxing Value Added," p. 172. For a demonstration that a VAT is neutral with regard to the choice between consuming now or saving for future consumption, see *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," p. 19.

incomes to pay a larger share of their income in taxes. A major concern about the value-added tax is that it does not meet this criterion of fairness, or equity, in taxation.<sup>10</sup>

The consumption type value-added tax assessed at a uniform rate would be proportional with regard to consumption. Total consumption by households in all income classes would be taxed at the same rate. But because consumption becomes a smaller share of income as income rises, a VAT would be regressive with regard to income. Households in the lower income levels would pay a larger share of their incomes in taxes than households in the higher income levels.

As a result of the regressivity of a VAT in its pure form, it is often suggested that adoption of a value-added tax in the United States should be accompanied by some form of relief for low-income families. An often-discussed means of reducing the burden of a VAT on lower income groups is the exclusion from the VAT base of purchases of some basic consumption items, such as food, medical expenses, and household utilities. Housing is likely to be excluded for administrative reasons, as noted earlier. Lower tax rates on such items might be another means of low-income relief under a VAT. Such efforts to reduce the regressivity of the VAT are primarily responsible for the reduction in the VAT base to 45 to 50 percent of PCE used in the illustration of the revenue potential of a value-added tax.

<sup>10</sup> Discussion of progressivity or regressivity in taxation approaches the notion of fairness in terms of vertical equity. Vertical equity is concerned with seeing that those with different income situations are treated differently. Fairness in terms of horizontal equity is concerned with seeing that those in similar situations are treated similarly. If consumption is believed to be the appropriate tax base, then applying the same tax to two households with the same amount of consumption could be said to meet the criterion of horizontal equity. But if income is the best tax base, then treating two households with similar consumption similarly might not provide horizontal equity, because their income situations might be very different. For further discussion, see Musgrave and Musgrave, *Public Finance in Theory and Practice*, pp. 215-224, 331.

There are two problems with providing low-income relief by excluding basic consumption items from the VAT base or taxing them at lower rates. Both of these approaches would significantly lessen the neutrality of a VAT in its pure form by distorting consumption choices in favor of items with tax preferences. Some students of the tax structure suggest that equity under a VAT could be improved while preserving more of the tax's neutrality by means other than exclusion of necessities from the VAT base. For example, provision for refundable credits on the personal income tax—or a negative income tax—would be more neutral ways of providing low-income relief if a VAT were adopted, as would other direct income transfers.<sup>11</sup>

Both exclusion of certain items from the VAT base and the use of differential tax rates would make administration of the tax more difficult. European experience shows that such measures can make the VAT less regressive. But studies of the European experience also suggest that such gains in equity can be outweighed by complications in administration and compliance and by reductions in the neutrality of the VAT.<sup>12</sup>

Although many may still view progressivity as an important element of the tax structure, surveys taken in the early 1980s found that the existing federal personal income tax was viewed as the "least fair" tax by the largest share of respondents. A much smaller share believed that state sales taxes—the existing tax most like a VAT—were "least fair." These results might be construed as showing some public inclination in favor of a value-added tax, at least compared with the income tax. However, the tax reform legislation now in process may improve the public's perception of the fairness of the income tax. Criticisms

<sup>11</sup> See McLure, "The Tax on Value Added: Pros and Cons," pp. 37, 49-50.

<sup>12</sup> Henry J. Aaron, ed., *The Value-Added Tax: Lessons from Europe*, pp. 8-9 and elsewhere.

of the regressiveness of a VAT might be muted by the adoption of tax reform that closes many loopholes available to higher income groups and removes the income tax liability from several million families below the poverty level.

### *Simplicity*

The costs of administering a value-added tax and the costs of compliance by the taxpayers are important considerations in its adoption. For the ultimate consumer, compliance is simple and familiar since nearly all Americans have experience with the retail sales tax. Most retail firms would be familiar with collecting and transmitting a VAT for the same reason. Firms in the earlier stages of production would have less familiarity, and all firms would have to set up the record keeping necessary to pass on the VAT to customers and receive credit for VAT paid on purchases. Administration and compliance costs would likely depend on the extent of good written records and on small businesses' share in economic activity.

How large the administration and compliance costs of this new tax would be is hard to estimate, partly because the complexities involved would depend heavily on what products or firms were excluded from the VAT and by what method, and whether single or multiple tax rates applied. For example, applying the VAT to certain areas like farming, small business, some services, and non-profit organizations might be difficult or inadvisable.<sup>13</sup> Decisions to except some consumption items from the VAT base or to tax items differentially would also complicate administration of the tax. Compliance would be made more difficult because of the need to define sets of goods subject to different rates and determine where par-

ticular goods fit into the classifications. According to one analyst:

However simple the value-added tax may be in theory, European experience makes clear that it is not simple in practice. ...the point is that while the value-added tax... is simple and cheap to administer, it is not the simple, self-enforcing tax that some of its less sophisticated advocates have suggested.<sup>14</sup>

European adoption of a VAT was eased somewhat by its substitution in many cases for the turnover tax. While there are significant differences in the economic effects of the two taxes, the means of administration and compliance had some similarity. In the United States, a federal VAT would be a new tax, with no such model to follow.

Provisional plans have been developed for administering a consumption type, credit method VAT in the United States, with certain exclusions from the tax base. About 20 million tax filers are estimated to be covered by the tax. At least 18 months would be required between enactment of a VAT and the beginning of its administration. When fully phased in, administration of the VAT would require 20,000 additional government employees and cost \$700 million a year.<sup>15</sup>

### *Tradeoffs*

A value-added tax of the consumption type, calculated by the credit method and assessed on all consumption at a uniform rate, would be essentially neutral in its economic effects. It would also be regressive with regard to income, falling more heavily on low-income groups that spend larger

<sup>13</sup> Chapter 6 in *Tax Reform for Fairness, Simplicity, and Growth*, Vol. 3, "Value-Added Tax," discusses a number of such problem areas.

<sup>14</sup> Aaron, *The Value-Added Tax: Lessons from Europe*, p. 9. Special problems from the European experience are discussed on pp. 9-12.

<sup>15</sup> *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," pp. 113-128.

shares of their income on consumption than do higher income groups. Low-income relief could be provided under a VAT by excepting some consumption items from the tax base, such as food. Or regressivity could be lessened by taxing consumption of necessities at a lower than standard rate and consumption of luxuries at a higher rate. But either course of action would weaken the neutrality of the VAT and would increase the complexity and the cost of administration and compliance. Thus, adoption of a value-added tax forces choices among the three objectives of a good tax system—neutrality, fairness, and simplicity.<sup>16</sup>

## **Economic and political aspects of a value-added tax**

### *Saving and economic growth*

Many people favor a place for the VAT in the federal tax system because, in the form that allows deduction of capital purchases in calculating the tax base, consumption alone is taxed. Because a consumption tax does not reduce the net rate of return on saving as an income tax does, the essentially neutral VAT favors saving compared with a nonneutral income tax which discourages saving. If additional revenue is the aim, adopting a VAT instead of higher income taxes could be expected to have a positive effect on saving and investment and, therefore, on the rate of economic growth. How much of a positive effect is still an unsettled question.

### *Prices and inflation*

Some people fear that introduction of a value-added tax would necessarily be inflationary. Adoption of a VAT would likely bring a rise in con-

sumer prices related directly to the tax rate and the breadth of the tax base. For example, with a VAT base equal to half of consumption and a tax rate of 10 percent, consumer prices might be expected to rise by about 5 percent on average. This would be a one-time rise in the price level and not an increase in the rate of inflation. However, if wages or other payments were indexed to consumer prices, or if workers were able to bargain wages up following the price increase, there would be some potential for inflation.

Information about the effect on prices from the European experience following adoption of the VAT is not much help, because the VAT replaced a tax similar in coverage and revenue production. Later increases in VAT rates are reported to have been inflationary, however, perhaps because of a wage-price spiral.<sup>17</sup>

### *International considerations*

It is sometimes argued that adoption of a VAT would improve the competitiveness of U.S. industry in international trade. The General Agreement on Tariffs and Trade allows countries using the VAT to rebate it on exports and impose it on imports, while such adjustments cannot be made for direct taxes such as corporate and individual income taxes. But simply imposing a VAT is not equivalent to subsidizing exports and penalizing imports. Rather, adopting a destination principle VAT by rebating the tax on exports and collecting it on imports is just a border tax adjustment. The adjustment is needed so imports are not favored in competition with domestic products bearing the tax and for exports to compete with foreign goods not bearing the tax. Without such adjustments, imports would have a price advantage over domestic goods and exports would have a price disadvantage in foreign markets.

<sup>16</sup> For further development of the tradeoffs, see Aaron, *The Value-Added Tax: Lessons from Europe*, pp. 5-7.

<sup>17</sup> Aaron, *The Value-Added Tax: Lessons from Europe*, pp. 12-13.

...the export rebate and import tax allowed for the value-added tax are merely border tax adjustments required to put the value-added tax on a destination basis. The export rebate merely allows exports to enter world markets free of value-added tax, not at a subsidized price below the pre-tax price. Similarly, imposing a value-added tax on imports merely places imports on an equal footing with domestically produced goods; it does not penalize imports. ...the imposition of a value-added tax, with no offsetting change in any other taxes, would not directly improve the U.S. trade balance.<sup>18</sup>

Whether substituting a VAT for a direct tax like the corporation income tax would improve the U.S. trade balance depends on whether the direct tax is shifted forward into prices paid by consumers. Even then, with floating exchange rates, a resulting improvement in the U.S. trade balance could be expected to be restrained by an increase in the value of the dollar.

It is unlikely that adoption of a VAT would itself significantly improve the U.S. trade balance. Equating export subsidies and import penalties with export rebates and import levies under a VAT is not correct. Whether substitution of a VAT for direct taxes would improve the trade balance depends on several assumptions.<sup>19</sup>

### *Size and growth of government*

The very fact that a value-added tax is a powerful revenue producer raises suspicion among those who fear that the ability to tap a new revenue

source would lead to more spending and further growth in government rather than to deficit reduction. Others dispute this view that additional revenue simply encourages more spending.

Evidence on the relationship between a VAT and the growth of government is mixed. The Treasury Department study reports as follows:

Foreign experience indicates that those countries with value-added taxes tend to be high tax, and presumably high government spending countries ... While value-added tax countries appear to have high taxes, generally, the causal relation, if any, is less clear.<sup>20</sup>

However, a summary of a set of studies on the European experience with the VAT noted:

These statistics strongly suggest that the value-added tax was a handy instrument at a time when government expenditures were rising. The tax was introduced and its rates were increased as part of a process by which the role and scope of governmental activity increased.<sup>21</sup>

Another study examined the fiscal behavior of 24 countries with and without value-added taxes, seeking "evidence regarding the belief that there is a line of causation from a new revenue source and the level of government spending."<sup>22</sup> The author concluded that "The simple *prima facie* view that imposition of a value-added tax increases government spending, or the ratio of total taxation to total economic activity, is not supported." While noting that more complex analysis might modify these results he notes that the results

<sup>18</sup> *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," p. 22.

<sup>19</sup> For further development of this discussion, see McLure, "The Tax on Value Added: Pros and Cons," pp. 21-24, 44-47; Norman B. Ture, "Economics of the Value Added Tax," pp. 92-94; and McLure, "Value Added Tax: Has the Time Come?" pp. 197-198.

<sup>20</sup> *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," p. 23.

<sup>21</sup> Aaron, *The Value-Added Tax: Lessons from Europe*, p. 16.

<sup>22</sup> J. A. Stockfish, "Value-Added Taxes and the Size of Government: Some Evidence," p. 547.

should at least "call into question the unsophisticated claims that a major tax increase by means of a new revenue source will simply increase spending."<sup>23</sup>

### *Preemption of state-local tax domain*

Adoption of a federal VAT, an indirect consumption tax, may be viewed as a federal incursion into a tax domain traditionally reserved to state and local governments. More than 40 states and many local governments collect general sales taxes. These taxes provide more than a third of their total revenue. State and local officials fear that adoption of a federal VAT could impinge on their use of essentially the same revenue base. Use of a federal VAT might influence the public's acceptance of higher state and local sales taxes, with the VAT rate being the important factor in that influence.

One authority observed that "There is much truth to the general principle that the federal government, which has the greatest facility to tax any base, should be cautious about preempting revenue sources that are particularly suited to use by the states."<sup>24</sup> But while the federal government should be careful about the effect on state and local governments of its choice of a new tax base, experience shows that this need not prevent adoption of a VAT. Federal and state governments already share some very similar tax bases. More than 40 states impose corporate income taxes and individual income taxes.

### **The value-added tax and the retail sales tax**

Except for the difference in administration, a federal retail sales tax would be essentially the

same as a destination principle, consumption type VAT with the same coverage and the same rate. Both would collect the same amount of revenue (Table 1). They would be similar regarding neutrality and distribution of the tax burden. Adoption of either might be considered an infringement on state and local tax domains. Adoption of either would affect the price level. Thus, practically anything that can be said about the somewhat novel VAT can also be said about the more familiar retail sales tax.

Most of the differences between the two are in methods of administration, so that most reasons for preferring one over the other are found in those

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*There is little difference between a value-added tax and a federal retail sales tax.*

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differences. The greatest advantage of a VAT over a federal retail sales tax may be in the VAT's superior accounting for purchases of capital goods and of other goods for business use. As a fundamental step in its implementation, the consumption type VAT excludes from the tax base purchases of capital goods as well as other purchased materials inputs, so that only sales to final consumers are taxed. The means used to achieve the same goal in state retail sales taxes, such as registration of firms allowed to make tax-free purchases or exemption of purchased items to be used in production, have not been wholly successful. The VAT and the retail sales tax share the problem of seeing that purchases excluded for business use do not find their way into consumption use.<sup>25</sup>

The VAT appears more complicated than a retail sales tax, and compliance and administration might be more difficult. Part of this difference

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<sup>23</sup> Stockfisch, p. 549.

<sup>24</sup> McLure, "Value-Added Tax: Has the Time Come?" p. 199.

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<sup>25</sup> For further discussion, see *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," pp. 31-33.

probably lies in familiarity with the retail sales tax, both by consumers and by businesses collecting and remitting the tax. More firms would be involved with a VAT since it is collected at all stages of production. One estimate is that 10 percent fewer firms would be involved in a federal retail sales tax. The so-called self-enforcing feature of a VAT calculated by the credit method appears to be an advantage over the retail sales tax, but there is some question of how important that factor really is.

While adoption of either a VAT or a federal retail sales tax might be viewed by some as an intrusion into the revenue domain of state and local governments, a federal retail sales tax might be preferred over a VAT, if a choice had to be made between them. It would be far easier to piggyback state and local sales taxes on a federal retail sales tax base than on to a VAT base. Such piggybacking would introduce consistency in definitions of the sales tax base, while still allowing states and localities to set rates according to their fiscal needs.<sup>26</sup> Experience already exists with local sales taxes tied to state levies.

There seems to be no clear-cut reason for choosing either a consumption type VAT or a federal retail sales tax if a decision were made to seek additional revenue by means of an indirect consumption tax. The familiarity of the retail sales tax to consumers and most businesses may be the point most in its favor. The VAT's apparently better

treatment of purchases of capital and intermediate goods may be its most favorable point.<sup>27</sup>

## Summary

A value-added tax could well be a cash cow for the federal revenue system and need not be a pig in a poke. The form of VAT most likely to be considered for the United States is a destination principle, consumption type, credit method tax. Such a tax is generally neutral but regressive with regard to income. Efforts to make the tax less regressive would tend to make it less neutral. Such efforts would also lessen the simplicity of administration and compliance. But some form of low-income relief would be likely in a U.S. VAT, as has been true in European VAT's. Even with such a tradeoff between the goal of fairness and the goals of neutrality and simplicity—which would reduce the size of the tax base—the VAT's potential revenue yield would be large. Several other issues and concerns revolving around adoption of a VAT have been discussed in this article, and a body of literature exists that both covers these matters in more detail and addresses other issues and concerns. When and if a decision on a VAT is to be made, ample information exists so that neither policymakers nor the public need fear buying a pig in a poke.

<sup>26</sup> See *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax," pp. 26-27.

<sup>27</sup> For a detailed discussion of the pros and cons, see John F. Due, "The Case for the Use of the Retail Form of Sales Tax in Preference to the Value-Added Tax," and Carl S. Shoup, "Factors Bearing on an Assumed Choice Between a Federal Retail-Sales Tax and a Federal Value-Added Tax."

## Selected Readings

This list includes all items cited in the article as well as some additional items. Most are relatively nontechnical readings accessible to a wide audience. Some contain additional bibliographies.

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