

The Value Added Tax in the United States

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Introduction

Value added taxes (VAT) have become an increasingly popular method of taxation since they were pioneered by the countries of the European Economic Community (EEC) in the late 1960's. Approximately forty countries worldwide are now utilizing some form of VAT. This article will examine some of the questions raised in the United States about enactment of a value added tax.

For those readers who are not thoroughly familiar with the functioning of the Internal Revenue Service within the framework of the U.S. tax system, the Service's task is to administer the taxes which are enacted by Congress. When requested, the Service provides assistance to Congress in analyzing the ramifications of proposed tax legislation and provides recommendations for remedial action with respect to administration of existing tax laws. However, the Service's role in tax matter does not normally extend to taking positions on major policy issues such as the adoption of a VAT. This role is performed by the policy functions of the Treasury Department on behalf of the President. This article is based upon research of the published authorities and two Service studies regarding the costs of administering a VAT. The article does not represent an institutional commitment by the Service as to the advisability of enacting a VAT in the United States or with respect to the type of VAT that should be selected if a VAT is to be enacted.

The Nature of Value Added Taxes

Value added taxes are the economic equivalent of a general sales tax on consumer goods and services. In contrast to a sales tax, which is collected only at the retail or user level of commerce, a portion of a value added tax is collected at each stage in a chain of production. The other major distinction between a sales tax and most value added taxes is that the sales tax is a tax on gross receipts while the various systems of value added taxes permit the tax remitting firm to deduct or credit costs in applying the value added tax to their sales. Thus, the computation base will be larger for a sales tax than the sum of the tax computation bases for a VAT unless there are no input costs at the initial production level. As will be discussed below, most VAT systems also permit a deduction or a credit with respect to capital assets used in the production of consumer goods.

There are three types of value added taxes, which are classified in accordance with the method used to calculate the base against which the tax will be applied. The most common VAT method is the "credit" method. Under this method, a tax remitting firm computes the tax on its gross sales. It is then allowed a credit for any taxes that have been previously paid by other tax remitting firms with respect to the remitting firm's purchased inputs. As a very simple illustration, a beachcomber who gathers shells and driftwood has no input credits. If the tax rate is 10% and the beachcomber sells his day's collection for \$100 to a local store which retails driftwood and seashells, the value added will be \$100 and a tax of \$10 will be added to the sales price. When the retail shop sells the shells and driftwood to the consuming public for \$200, the value added tax is \$20. However, the retail shop is allowed a \$10 input credit for the tax that was remitted by the beachcomber (but actually borne by the retail shop). The consumers pay \$20 of VAT to the retail shop which serves to reimburse the retail shop for the prior \$10 of tax paid and to pay the additional \$10 of tax owed on the retail sale.

The second method is the "subtraction" method. Under this method, each tax remitting firm subtracts the cost of its purchased inputs from its gross receipts to determine the taxable base. In contrast to the credit method where the tax is always stated separately from the sales price, the VAT may be included in the sales price under some subtraction systems. In order for the

beachcomber to net \$100 from his sales to the retail shop, he will need to charge \$111.12. ($\$111.12 \times .10 = \11.112 ; $\$111.12 - \$11.112 = \$100.008$). The retail shop will need to charge \$222.24 in order to net \$100 after deducting its input costs and VAT. If the VAT is separately stated, the beachcomber can charge \$100 plus \$10 of VAT. Since VAT paid would constitute part of the retail shop's cost of goods sold, its sale price to the public would need to be \$210 plus VAT of \$10 in order to net \$100. ($\$210 - \$110\text{CGS} = \$100 \times .10 = \10). Assuming that all firms in the chain of production are taxable entities and there is a single tax rate applied uniformly at every level of production, the results under the "credit" and "subtraction" methods will be precisely the same if the tax is separately stated under the subtraction method but the subtraction method will produce a larger tax if the tax is included in the sales price. If different rates of tax apply to different stages of production, or if one or more firms involved in the chain of production are exempt from the tax, the two methods can produce vastly different results.

Under the third or "addition" method, the value added or tax base is determined by adding up the components of value added rather than by reference to the sale price. Under this method, the value added components are wages, rent, interest and net profit. Net profit computed by a formula allowing depreciation raises many problems.

Value added taxes can also be categorized as gross product type, income type or consumption type based upon the treatment of the costs of capital assets employed in the production process.

Under a gross product type of VAT, a firm would not be allowed a deduction (or input credit) for the cost of its current capital expenditures or a depreciation allowance for its capital assets. A drawback of this method is that it creates a bias in favor of using labor rather than capital that could result in firms delaying the modernization and upgrading of plant and equipment. See U.S. Department of the Treasury, *Tax Reform For Fairness, Simplicity, and Economic Growth*. Washington, DC, 1984, Vol. 3, p.6.

The income type value added tax typically allows an allowance for depreciation of capital assets but still places a burden on capital to the extent that investment in any period is greater than the allowable

depreciation. (An income tax may also be considered as burdening capital if less than an immediate 100% write-off of capital expenditures is permitted.) The income type VAT requires computation of depreciation allowances and involves many of the same definitional problems that exist in computing net income for purposes of the income tax. The income type VAT has little appeal as long as the United States retains its current income tax. *U.S. Department of the Treasury, supra*, p. 7.

The consumption type value added tax allows all business purchases, including capital expenditures, to be fully deducted (or credited) currently. Under this system the tax base equals total private consumption. This form of VAT is neutral between methods of production since the total tax burden will be the same whether capital is substituted for labor or *vice versa*. The consumption type VAT also encourages capital formation since only expenditures are taxed. Savings and the income on savings are not taxed for VAT purposes until withdrawn and used for consumption, although they may still be subject to an income tax.

Finally, value added taxes are also categorized as “origination principle” or “destination principle”, depending upon their application to international trade. Under a “destination” VAT system, VAT is refunded on exports. Assuming that the country of destination will impose VAT on the first sale within that country and that the seller of imported goods will have no tax credits or deductions for imported goods, the total indirect tax burden on imports will be exactly the same as for goods produced in the consuming country. If the exporting country did not refund the VAT on goods being exported to a country which applied a VAT to a transfer of imports within that country, then the imports would be doubly taxed and be at a disadvantage in competing with domestic products.

Under an “origination” type VAT, VAT is neither refunded upon export of goods nor imposed upon the import of goods. Thus, if goods are exported from one jurisdiction with an “origination” VAT to another jurisdiction with an “origination” VAT, those goods will have a competitive advantage or disadvantage depending upon whether the tax rate in the country of origin is lower or higher than the tax rate in the country of destination. If goods are imported from a country utilizing a “destination” type VAT to a country utilizing

the “origination” type VAT, those goods will bear no indirect taxation and will therefore enjoy a substantial competitive advantage *vis-a-vis* products produced in the importing country. Conversely, goods exported from a country with an origination type VAT to a country with a destination type VAT will be competitively disadvantaged to the extent of the exporting country’s VAT.

The refund of VAT on exports, which is commonly referred to as border tax adjustments or BTA’s, has spawned a great deal of controversy. It has been argued that BTA’s constitute an export subsidy for exports to a country which does not utilize a VAT. Refunds of VAT on exports are permitted under the General Agreement on Tariffs and Trade (GATT) rules, but no BTA’s are permitted for income taxes under the GATT Rules. The GATT rules are premised on the theory that income taxes are borne by the producer and do not affect prices while VAT and other indirect taxes are borne by the consumer and have a direct effect on prices. In all probability, some portion of income taxes is reflected in prices. The portion taken into account in prices will vary inversely with the degree of competition in the particular industry. Adoption of a destination principle VAT will not, without corresponding reductions in other taxes, result in any change in the trade position of the exporting country. Application of the VAT to imports will merely serve to increase the price of imports by the same amount the domestic prices increase. The border tax adjustment for exports will only result in export prices remaining stable thereby allowing exports to maintain their current market position. *See* Charles E. McClure Jr., *The Value Added Tax*, Washington, DC, American Enterprise Institute for Public Policy Research, 1986, pp.; 39-42; and U.S. Treasury Department, *supra* pp. 21-22.

Considerations in Choosing a VAT

If neutrality of effect on prices is the primary goal, a consumption type VAT is superior to the gross product VAT or the income VAT. A broad-based, single rate, consumption VAT will generally not affect either production decisions or consumer decisions. Since capital expenditures are deductible currently, the total taxes paid will be the same regardless of the capital labor mix. If all goods are taxed at the same rate market factors rather than taxes will determine prices and, therefore, consumer preferences.

Additionally, the consumption VAT encourages savings that generate investment because it only applies to expenditures. Amounts that are saved, and the return on such amounts, are free from taxation until they are expended for consumption. However, the consumption VAT is not neutral between consumption and saving because it discourages consumption while encouraging savings. The income type VAT taxes both capital expenditures (net of the depreciation allowance) and savings thus promoting the use of labor rather than capital and current expenditures rather than saving. Although the gross product type VAT does not tax savings, it fully taxes capital expenditures and would constitute a strong incentive for companies to delay or defer capital improvements or to engage in self-construction of capital improvements.

The consensus of the literature is that the distortion of the economy that would be caused by a gross product type VAT is too severe for this type of VAT to be a viable choice for a country with a well developed industrial economy. To date the countries adopting VAT's have opted for consumption VAT's and the more favorable treatment of capital. The income VAT is far more complex than a consumption VAT. For this reason, it is not an attractive alternative if it is to be imposed in addition to an income tax. Since the income VAT has both income tax and VAT characteristics, it may be a viable choice if intended as a replacement for an income tax.

Adoption of an "origination" VAT by the United States would discourage exports and encourage imports. In the absence of a border tax adjustment, the price of U.S. exports would be increased by the rate of the value added tax. The existing VAT systems work on the "destination" principle, which means that U.S. exports would be taxed again on entering those countries. Further, imports into the United States would be free of foreign VAT and would escape VAT taxation here.

Assuming that the choice is for a consumption type VAT utilizing the destination principle, the last choice to be made is the computation method. The addition method, which includes net income in the tax base, is designed to effectuate an income type VAT and is not an efficient computation method for a consumption VAT. The credit and subtraction methods may both be used to compute a consumption VAT. However, the credit method is simpler to administer. As each firm in a chain of production passes

property on to the next stage, the credit method requires that VAT be computed on the entire transfer price but allows the firm a credit for any VAT paid at prior stages. The credit is readily determinable because each firm is required to provide its purchasers with invoices indicating the portion of the transfer price that constitutes taxes paid. Under the subtraction method, each firm computes its taxes independently based only on the difference between its transfer price and its cost of goods sold.

For both practical and policy reasons, it is desirable that certain firms not be taxable and that certain items not be taxable. One reason that is frequently cited is that, value added taxes are regressive in the sense that as a percentage of income, they fall more heavily on low income persons who must spend a greater portion of their income on consumption. In order to alleviate this effect, subsistence items such as medicine and food are always prime candidates for zero rating or reduced rating. This can be accomplished either by exempting the firm from VAT or by applying a zero rate (or a reduced rate) to the transaction.

In a credit system, exemption of a firm will break the chain of credits because the exempt firm is not a VAT taxpayer and may not claim the prior credits. Assuming that the purchaser from the exempt firm is not the final consumer, the full VAT must be paid on the next transfer without credit for the VAT that was paid prior to the purchase by the exempt firm. Consequently, exemption of a firm in the middle of the chain of production can result in total VAT paid greater than the nominal tax rate. Unless a firm is selling at the retail level, exemption can actually be a competitive disadvantage under a credit system since a non-exempt firm can pass along credits to its purchasers and possibly under-sell the exempt firm. Exemption within the framework of a subtraction method VAT merely erodes the tax base to the extent of the exempt firm's contribution to the total value added. Adoption of the credit method thus avoids much of the political pressure that special interest groups may exert in an effort to seek special treatment.

Under the credit method, it is only necessary to apply a reduced rate or zero rate at the retail level in order to secure the zero rate or reduced rate for the entire chain of production since the retailer remains within the VAT system and will be allowed to claim input credits even though its sales are zero rated or reduced rated. Zero

ratings or reduced ratings applied prior to the retail level in a credit system serve to reduce the taxes of or exempt the firm at that level but the next firm will end up paying the amount of any reduction in taxes. Zero rating or reduced rating of a product in the subtraction system only reduces the tax paid at that level of production. In order to free a commodity of all VAT, the commodity has to be zero rated at every level of production under the subtraction method. As a practical matter, such a system would be unworkable.

For instance, the manufacturer of peppermint extract sells its product to a distributor which in turn sells half of the product to a distiller for use in peppermint schnapps and the other half to a candy manufacturer for use in candy. An irreconcilable problem exists if the candy is considered food and not taxed while the schnapps is fully taxed. The peppermint extract manufacturer has no way of knowing that its product will ultimately be used in a zero rated commodity, and consequently it must charge VAT on the sale to the distributor. The distributor's sale to the candy manufacturer can be exempted or zero rated avoiding further taxation but the subtraction method offers no mechanism for refunding taxes paid at prior levels resulting in some tax having been paid on the zero rated candy.

The credit method is also superior to the subtraction method in dealing with border tax adjustments if an export is comprised of elements that were taxed at different rates or of taxable and nontaxable elements. Although the subtraction method does not normally contain any mechanism for refunding VAT paid prior to an export transaction, a special refund provision for border tax adjustments could be created that would be able to reasonably approximate the prior VAT paid if there were only one rate that applied to all commodities. Even then, the rate would be only an approximation because of the differences in purchased inputs for different products.

The credit method possesses an additional administrative benefit in that it is somewhat self-policing. Each VAT registered firm must furnish its purchaser with an invoice reflecting the VAT previously paid with respect to the product. Credits are only allowable based on invoices. While it might be a temptation for a firm to overstate its credits, this is a readily auditable item since it must match the invoices.

The credit method, consumption base, destination principle VAT is the one which has drawn the most interest in the United States and is, in fact, the most prevalent system among those countries currently having VATs. In a 1984 report, the U.S. Treasury Department concluded that if the policy debate in the United States ever reached the point of choosing a VAT, the VAT should be of the consumption type, computed under the credit method and utilize destination principle for border tax adjustments. The Treasury Report did not, however, recommend for or against the adoption of a VAT. See U.S. Department of the Treasury, *supra*, p. 16. As will be discussed below, there have been alternative proposals for different types of VATs both in Congress and by private experts. However, the majority sentiment is that if there is to be a VAT in the United States, it should be patterned along the lines of the classic European VATs. See Charles E. McClure Jr., *supra*, and George N. Carlson, *A Federal Consumption Tax Design and Administrative Issues* (paper presented to the American Council for Capital Formation Center for Policy Research, September 3-5, 1986). The American Bar Association (ABA) is currently developing a model value added tax act. Again, the current draft would provide for a VAT very similar to the VATs that currently exist in the European Economic Community. However, the current draft has not been adopted by the membership nor has the ABA endorsed enactment of a VAT in the United States.

Pros and Cons of a VAT

In this section, the benefits and detriments of a VAT are discussed solely in the context of a consumption type, credit method, destination principle VAT. Most of the benefits of a VAT have been previously touched upon in explaining the choices to be made in selecting a VAT. There is a general consensus that a VAT is the most neutral tax in terms of effect upon the economy. The income tax impacts upon capital investment because only a depreciation allowance is allowed currently. This results in the owner of capital property paying income taxes on the output of the property during periods in which the owner's net out-of-pocket expenditures exceed the income from the output of the property. If a function can be accomplished with current capital assets and additional labor, the business is better off economically because the labor can be deducted in full currently and the capital can be employed for other income producing purposes. This phenomenon can substantially

affect business decisions to modernize or expand plants and capital equipment. U.S. Treasury Department, *supra*, pp. 17-18.

The income tax is also extremely vulnerable to political pressures for favored treatment of special interests and to the temptation to use taxation to accomplish social purposes. In addition to eroding the tax base, these exceptions to the income tax result in the tax being borne unevenly throughout the economy. As this occurs, consumer choices may become biased toward goods which do not bear the full incidence of the income tax. A broad based credit VAT avoids this problem to a great extent since the credit mechanism is difficult to tamper with. U.S. Treasury Department, *supra*, pp. 18-19. Except at the retail level, exemption, zero rating or reduced rating may actually have a negative effect on the business of the tax remitter rather than a positive effect. If goods are zero rated or reduced rated at pre-retail stages, the lost revenue is simply picked up at the next stage. A fully taxed competitor, whose price is less than the total of the price charged by the exempt, zero rated or reduced rated firm plus the additional tax that the next stage will have to absorb, will have a price advantage.

If income taxes are reflected in the general price of goods, and if those prices are responsive to a reduction in the income tax, then substitution of a VAT with border tax adjustments for a portion of the income tax might be expected to benefit the international trade position of the United States. This result, however, is unlikely. While it is probable that the prices of some commodities reflect the level of income taxation borne by those commodities, it is unlikely that prices would be sensitive on any short term basis to a drop in the income tax. Generally, price rollbacks do not occur unless driven by competitive factors. In some heavily competitive industries, a reduction in the income tax might provide an opportunity for some firms to reduce prices thereby forcing other firms to follow suit. However, in many, if not most, industries it is suspected that this effect would be negligible. Even if the price rollbacks occurred, it is doubtful that the United States would be able to secure more than a very short term advantage in international trading. In a regime of floating currencies, it is likely that a short term improvement in the U.S. trade position would result in a strengthening of the U.S. dollar thereby making it more expensive for foreign countries to import U.S. goods and negating the short term benefit resulting from the border tax adjustments. U.S. Treasury Department, *supra*, pp. 21-23.

VAT is touted as a self-policing system. Generally, this is true at the pre-retail stages where each purchaser will keep his supplier honest. At the retail level, the opportunity to avoid tax still exists. In general, there is no reason to furnish retail purchasers with an invoice. Consequently, sales can be understated with virtual impunity unless the ratio of input credits to sales becomes totally unrealistic for the type of business. In some types of business such as plumbing, where the input credits are very low compared to sales, the firm may even be better off to purchase its supplies at retail, absorb the VAT and then completely conceal the sales transaction. The avoidance of VAT has contributed to the development of "black market" economies in the European countries. See Graham Bannock & Partners Ltd., *VAT and Small Business in North America, A Review of Experience in Europe*, (unpublished research report for the Canadian Federation of Independent Business and the National Federation of Independent Business, January 1986 pp.86-88).

The consumption VAT taxes neither savings nor the interest earned on savings until they are withdrawn and used for consumption purposes. This will promote the formation of capital, and hopefully, the creation of new businesses and the modernization or improvement of current businesses. However, the enactment of a VAT creates a substantial inequity with respect to pre-existing savings. Those savings, and the interest earned on such savings, have been taxed. If they are expended for consumption purposes after the enactment of a VAT, they will bear still another tax. The problem is particularly acute among the retired who are using their life savings to fund current living expenses.

Many of the European countries realized a benefit from the adoption of VAT that is not available to the United States. Prior to the formation of the EEC, cascade turnover taxes were common in Europe. The cascade tax was imposed on each sale of an item as it passed through the chain of production. The total tax increased with the number of sales within the chain of production because there was no credit or subtraction mechanism. As case by case exemptions and rate differentials were created to ameliorate the adverse effects of the cascade tax, it became a nightmare to administer. Since there was no way to accurately determine the amount of tax that had been paid with respect to any particular commodity, border tax adjustments were impossible and international trade was distorted. The

value added tax was a perfect solution to this problem. One multi-stage indirect tax was simply substituted for the other leaving the balance between indirect and direct taxes reasonably intact. From the standpoint of tax administration, the conversion was relatively painless since the tax administrators were already familiar with multi-stage indirect taxes. By comparison, the United States has no national sales tax to be overhauled nor does it have the administrative infrastructure necessary to deal with a multistage sales tax.

The worst policy feature of the consumption VAT is that it is regressive. As a percentage of income, it falls more heavily on lower income classes. As income rises, the percentage of income spent on consumption decreases. The tendency has been to attempt to address this problem by applying lower rates or zero rates to subsistence items such as food and medicine. Administratively, this creates a morass of problems in attempting to determine which items fit within which tax categories: For example, is chewing gum a food item? Does a corn plaster qualify as medicine? Economically, exemption and zero-rating often unjustifiably erode the tax base. It is counterproductive to waive VAT on a rich person's purchase of \$10 per pound prime, aged, tenderloin so that a poor person will not have to pay VAT on the purchase of \$1 per pound hamburger. Attempts to treat certain types of food or medicine differently than others through categorizing and applying different rates increases the complexity of the tax and compounds the problem of determining which products are covered in the different categories.

For those low income taxpayers who are still within the income tax system, the regressivity of the VAT can be mitigated by altering the income tax, i.e. the rates at low income levels could be reduced further or additional credits and exemptions provided. This could solve a portion of the problem but there are a substantial number of persons below the poverty level in the United States who are not subject to the income tax. A system of credits could be devised where those who were not subject to the income tax could nevertheless file a return and receive a refund of VAT credits, or alternatively, welfare payments could be indexed to take into account the need for additional funds to pay VAT. The regressivity problem is not insoluble; it will simply result in some additional administrative expense and complexity.

Another criticism of VATs is that they are money machines that fund permanently higher levels of government spending. While it is true that countries which have VATs tend to be high tax jurisdictions, it is not clear that the value added tax is the cause of the high rate of taxation. In most of the European countries with value added taxes, income taxes and Social Security taxes have increased as a percentage of total taxation while the value added taxes have decreased as a percentage of the total tax burden during recent years. Even though the nominal tax rates for the value added taxes have risen, the fact that value added taxes have fallen as a percentage of total taxation indicates that direct taxation has grown even more rapidly. Regardless of whether a VAT actually contributes to increased government spending, the fact remains that rates can be raised quickly and easily for existing VATs. U.S. Treasury Department, *supra*, pp. 23-26.

In enacting a VAT, or for that matter a national sales tax, the United States faces a major problem that did not exist in most of the countries currently having VATs. The United States is a federal system in which the state governments have a great deal of independence in tax matters. Forty-five of the fifty states and the District of Columbia currently impose sales taxes with widely varying rates and tax bases. While there is nothing to prohibit the federal government from imposing a national indirect tax in the form of either a VAT or a sales tax, such action would undoubtedly be viewed by many states as an unwarranted intrusion into their fiscal domain. More importantly, in the absence of coordination with the state taxes, it would add an additional compliance burden on businesses.

Graham Bannock & Partners, *supra*, estimates that the governmental cost of administering VATs in the EEC is approximately one percent of revenues. At the same time, the cost of compliance to businesses is at least several times as high as the cost of governmental administration. In the absence of coordination of a federal VAT with the state sales taxes, another administrative burden will be imposed on business. In theory, it is possible that the state sales taxes could be converted to VATs with the same taxable base as the federal VAT and then piggybacked on top of the federal VAT with each state at least retaining the right to determine the rate of the piggyback state tax. Alternatively, a portion of the VAT could be remitted to the states as revenue sharing. In practice, the likelihood of being

able to fully coordinate a federal VAT with all the state sales taxes is fairly remote. Under I.R.C. SS6361-6365, a procedure has been provided whereby the Service will collect state income taxes that are sufficiently similar to the federal income tax at no charge to the states. No state has yet taken advantage of the offer.

Administration of a VAT in the United States

Apart from the sales taxes imposed by the various states and local jurisdictions, indirect taxes are a very small percentage of the total taxes collected in the United States. Revenue statistics compiled in Organization for Economic Cooperation and Development, *Revenue statistics of OECD member countries, 1965-1983* (Paris, 1984) (reproduced in U.S. Department of the Treasury, *Tax Reform, supra*, pp. 24 and 25) indicate that for 1982, total indirect taxes in the United States, including state sales taxes, amounted to 5.32% of the gross domestic product. Direct taxes amounted to 25.14% of the gross domestic product. Consequently, as a percentage of total tax revenue, indirect taxes were only approximately 17.5%. While the states have expertise in administering sales taxes, the federal experience with indirect taxation is limited to excise taxes. Enactment of a VAT would thus require development of a completely new administrative structure.

U.S. Department of the Treasury, *Tax Reform, supra*, Chapter 9, sets forth the outline of a provisional plan developed by the Service to administer a consumption type VAT determined by the credit method. The plan estimated that there would be approximately 20 million VAT taxpayers, excluding farmers; that the Service would require approximately 20,000 additional employees; and that the cost would be approximately \$700,000,000 per year after the tax had been fully phased in. The U.S. Customs Service would be responsible for collecting VAT on imports but all other administrative functions would be performed by the Service. The plan anticipates that the additional personnel would be absorbed into the current district and regional structure as an additional function rather than becoming a separate organization. Returns would be filed quarterly and payments would be subject to the federal tax deposit rules in the same manner as Social Security, i.e., payments must be made prior to the filing of return at frequencies that vary according to the amounts to

be paid. It was estimated that a VAT would result in an additional 80,000,000 tax returns per year, 120,000,000 tax deposits, 50,000,000 notices of various types and 5,000,000 adjustments.

Given the likelihood of exempting certain segments of the economy such as housing, medical care, education, religion and welfare, even a broad based tax would not reach all public consumption. In the Treasury study, it was estimated that total personal consumption would be approximately \$3,127 billion for the year 1988. After exemptions, the report concluded that a realistic broad based VAT would likely not attach to more than 77% of total consumption or \$2,408 billion. U.S. Department of the Treasury, *Tax Reform, supra*, p. 86. Thus, each percentage point of tax would produce approximately \$24 billion of revenue. A 10% rate would produce \$240 billion of revenue annually.

European experience, as reported in Graham Bannock & Partners, *supra*, indicates that administrative costs in the EEC amount to approximately 1% of revenue. Based on a 10% tax rate, the Service's estimate of annual costs of \$700,000,000 would produce less than .3% administration costs. The United States has a much larger economy than any of the EEC members giving it an economy of scale for tax administration purposes. In addition, Graham Bannock & Partners, *supra*, p. 69, indicates that the number of staff-years devoted to VAT in the EEC is much higher in relation to the number of registered firms than was estimated by the Service. For instance, the United Kingdom had 12,451 VAT employees for 1,433,100 registered firms while the Service predicted that 20,000 employees would be needed to administer a system with 20,000,000 registered firms.

The Treasury Department estimated that a lead time of at least 18 months would be required to implement a consumption type VAT in the United States. This conforms with the 1 to 2 year education campaigns that have been conducted in all of the countries adopting VATs prior to implementation of the taxes.

In May 1985, Senator William Roth proposed legislation to enact a subtraction method VAT, the Business Transfer Tax Act of 1985, S. 1102, 99th Cong., 1st Sess. As a result of interest expressed by the Senate Finance Committee, an unpublished task force report was prepared examining the cost of implementing and administering the

business transfer tax (BTT). The BTT would differ administratively from the credit model VAT considered in the Treasury Report in two important respects. The BTT required only an annual return with quarterly or monthly tax deposits. Firms with *de minimis annual receipts were to be exempted*. The *de minimis* exception was originally not defined, and consequently, the study considered costs using five different potential universes. (An exemption for firms with less than \$10,000,000 in annual receipts was added subsequently.) With no *de minimis* rule, it was estimated that there would be 20,000,000 taxpayers; if gross receipts under \$50,000 annually were exempted, it was estimated there would be 5,000,000 taxpayers; if gross receipts under \$1,000,000 were exempted, there would be 500,000 taxpayers; if less than \$5,000,000 in gross receipts were exempted there would be 115,000 taxpayers; and finally, if gross receipts under \$10,000,000 were exempted, there would only be 55,000 taxpayers.

The costs for each universe were then determined for both quarterly deposits and monthly deposits. The model with no *de minimis* rule and monthly deposits is most comparable to the Treasury Report model but the comparison is of little value due to other variables. It was estimated that the 20,000,000 taxpayer BTT would ultimately require an additional 16,364 staff years at an annual cost of \$823,900,000 per year. If only quarterly deposits were required, the administrative costs would be \$125,000,000 less per year. The study done for the Treasury Report did not include the federal tax deposit cost of 50 cents per deposit which is included in the BTT estimate, and the BTT estimate was based on fiscal year 1989 staffing costs while the Treasury estimate was based on fiscal year 1987 staffing costs.

VAT Proposals in the United States

In the early 1970s President Nixon considered a value added tax to finance education. The revenue from this tax would have been offered to state and local governments willing to substitute this source of revenue for the portions of their real property taxes devoted to education. The proposal never got beyond the stage of being studied and no formal recommendation was ever made to Congress.

In 1979, the Ways and Means Committee Chairman Al Ullman introduced The Tax Restructuring Act of 1979, which proposed a

multiple rate (10%-5%) European style VAT. H.R. 5665, 96th Cong., 1st Sess. The proposal was amended in April 1980 in H.R. 7015, which still proposed a classic European style VAT but with a single rate of 10%. H.R. 7015, 96th Cong., 2nd Sess. The proposal expired at the end of the 96th Congress and was not reintroduced.

In S. 51, 99th Cong., 1st Sess., May 23, 1985, a low rate VAT to be imposed only at the manufacturing stage was proposed to raise revenue for the "superfund", a fund designated to clean up industrial waste and pollution in the United States. The proposed rate was only 0.08% which, raised a very significant issue regarding the cost of administration relative to the revenue to be raised. In addition to applying at the manufacturing stage, the superfund VAT utilized the subtraction method and was not suitable as a general consumption tax. The proposed VAT was not included in the final superfund legislation enacted in 1986.

In May 1985, as discussed above, Senator William B. Roth introduced the "Business Transfer Tax Act of 1985". The BTT was a subtraction method VAT which was based on consumption and utilized the destination principle for international trade. Tax was to be imposed on receipts from taxable items less allowable deductions. The BTT component of sales receipts was included in the receipts for purposes of computing the BTT at the next production level. Consequently, a BTT of 10% could produce revenues of more than 10% of the retail sales price of a taxable item. The BTT also had two other characteristics that were unusual in the context of existing VATs. The liability for the BTT was allowable as a credit against FICA payroll taxes (social security) and any businesses with less than \$10,000,000 of gross receipts annually would have been exempt from the BTT.

The published experts in the field of value added taxation tended to be somewhat critical of the BTT. They noted that the BTT was not based upon invoices as utilized in the credit method, and consequently, the self-policing aspect did not exist. They also noted that the BTT, like all subtraction VATs, is more susceptible than credit VATs to base erosion caused by specific exemptions. The large exemption for small business was questioned by some as an unjustifiable erosion of the tax base. Lastly, the proposed allowance of the BTT as a credit against FICA taxes would likely run afoul of the

GATT rules if, as proposed by Senator Roth, the full amount of BTT were refunded on exports. To allow a full refund of the BTT on an export after a portion of the BTT had been used to satisfy FICA liability would, in effect, result in a subsidy to U.S. exports to the extent of the FICA liability that had been relieved. For a full explanation of the border tax adjustment problem, see Charles E. McClure Jr., *supra*, pp. 86-88. The BTT Bill expired at the end of the 99th Congress, and, as yet, has not been re-introduced by Senator Roth.

On March 31, 1987, Senator Hollings introduced S. 891, 100th Cong., 1st Sess., which is an omnibus trade bill containing a classic European VAT with a single rate of 10%. The bill has been referred to the Senate Finance Committee. No further activity has occurred.

Although it has not resulted in the introduction of legislation, Robert Hall and Alvin Rabushka of the Hoover Institution have made a unique proposal to replace the income tax with a hybrid VAT. Robert E. Hall and Alvin Rabushka, *Low Tax, Simple Tax, Flat Tax* (New York: McGraw-Hill, 1983) and Hall and Rabushka, *The Flat Tax* (Stanford, California: Hoover Institution Press, 1985). The Hall-Rabushka proposal would completely replace the existing income tax with a flat rate tax determined on the subtraction method. Unlike existing value added tax systems, this proposal allows businesses a deduction for wages paid. The wage earner is then treated as a taxpayer within the system but is permitted personal exemptions which counteract the regressive nature of the VAT. While this offers a possible way of ameliorating the regressivity of a VAT, the proposal has a serious problem to overcome in terms of its effect of international trade. Since wages are excluded from the computation of the production portion of the tax, the taxes paid by the employers in the production chain are only a portion of the VAT paid on an exported product. Consequently, Hall and Rabushka have proposed that the tax be levied on the origin principle, which is at odds with existing VAT systems that tax on the destination principle. In the absence of some type of border tax adjustment, United States exports would be severely hampered by being taxed in the United States and in the country of destination. It would be possible to convert the personal exemption VAT to a credit VAT by allowing employers a credit for VAT paid on worker's salaries. The credit it would be at the full nominal rate withheld by the employer even

though the workers, depending on their exemptions, might file returns and secure refunds of portions of the tax. It is likely that our GATT trading partners would view the labor portion of the VAT as a direct income tax, which is not permitted as a border tax adjustment. U.S. Treasury Department, *supra*, pp. 37-38.

Conclusion

Enactment of a VAT in the United States could not be done without overcoming serious problems. First, the general rise in the level of prices resulting from enactment of a VAT would require the United States to find a solution that would relieve those most unable to bear the burden of further tax from its effect, and would exempt those entities or products that policy reasons dictate should not be taxed. The government would have to employ and train thousands of new tax administrators. New forms and procedures would have to be developed and existing tax processing facilities would have to be expanded. Businesses would incur similar, and most likely greater, tax compliance expenses. Finally, enactment of a VAT would conflict with the policy that has been followed consistently by President Reagan and the Treasury Department policymakers that budget deficits should be addressed through reduced governmental spending rather than by raising additional tax revenues.