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E-tax: Fundamental Tax Reform and the Transition to a Currency-Free Economy

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E-TAX: FUNDAMENTAL TAX REFORM AND THE TRANSITION TO A CURRENCY-FREE ECONOMY

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I. INTRODUCTION

During the twentieth century, the income tax evolved as the principal source of revenue for the federal government.[1] In the early 1970s, however, academic writers began to reexamine the desirability of an income tax.[2] More recently, the income tax has come under attack from legislators[3] and commentators,[4] who have proposed alternative tax systems. As a result, it appears that fundamental tax reform is more likely now than at any other time in the history of the modern income tax.

This article discusses the movement toward an economy in which virtually all transactions of significant size are done electronically, either through credit cards, electronic bank transfers, or electronic commerce ("e-commerce"). Indeed, observation of our current economy reveals that the economy is close to that point already,[5] with paper currency relegated only to minor transactions or illegal commerce. This movement, brought about through technological change in electronic funds transfers

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[1] *See, e.g.* FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES 7-9 (Michael J. Graetz & Deborah H. Schenk, eds., 3d Ed. 1995).

[2] *See* William D. Andrews, *A Consumption-Type or Cash Flow Personal Income Tax*, 87 HARV. L. REV. 1113 (1974).

[3] *See, e.g.* Senator Pete V. Domenici, *The Unamerican Spirit of the Federal Income Tax*, 31 HARV. J. ON LEGIS.273 (1994); Congressman Bill Archer, *Goals of Fundamental Tax Reform* in FRONTIERS OF TAX REFORM (Michael J. Boskin, ed. 1996); H.R. 2060, 104th Cong., 1st Sess. (1995) (Flat tax proposal introduced by Representative Armey and Senator Shelby); S. 722, 104th Cong., 1st Sess. (1995) (Direct consumption USA tax proposal by Senators Nunn, Domenici, & Kerrey). *See also infra*, notes 91-115 and accompanying text.

[4] *See* ROBERT E. HALL & ALVIN RABUSHKA, THE FLAT TAX , (2nd Ed. 1995); MICHAEL J. GRAETZ, THE DECLINE (AND FALL?) OF THE INCOME TAX (1997); FRONTIERS OF TAX REFORM (Michael J. Boskin ed. 1996); JOEL SLEMROD & JON BAKIJA, TAXING OURSELVES: A CITIZEN'S GUIDE TO THE GREAT DEBATE OVER TAX REFORM (1998); MICHAEL J. GRAETZ, THE U.S. INCOME TAX (1999).

[5] *See, e.g.* ELINOR HARRIS SOLOMON, VIRTUAL MONEY 6-7 (1997) (Describing the movement away from paper currency toward electronic money transfers and other credit transactions); Shahriar Tavakol, *Digital Value Units, Electronic Commerce and International Trade: An Obituary for State Sovereignty Over National Markets*, 17 J. MARSHALL J. COMPUTER & INFO. L. 1197, 1197 (1999) (describing the evolution of banking from paper currency to "e-commerce"); Heather C. Alston, *Will that be Cash, Credit, or E-money?* 1 N.C. BANKING INST. 225, 225 (1997) (describing the replacement of paper currency with credit cards and "e-money"); Thomas P. Vartanian, *Doing Business on the Internet: The Law of Electronic Commerce*, 452 PLI/PAT 141, 146 (1996) ("the business of financial intermediation may be heading for the most comprehensive overhaul of products and delivery systems this century").

and credit card transactions, has made point-of-sale taxation feasible and inexpensive. As a result, this article recommends that the income tax should be replaced by a system of taxation that imposes and assesses the tax on transactions at the point-of-sale. A point-of-sale system of taxation is most efficiently implemented as a credit-type value-added tax ("VAT"), and this article recommends the credit-type VAT as the primary model that should be adopted in the future to take full advantage of the new technology. Optimally, this model should replace the current income tax in its entirety because it can raise the revenues now being collected under the income tax less expensively. A retail sales tax could also be implemented in the manner suggested in this article.

Part II of this article examines the movement towards a currency-free economy. Part III reviews the theoretical concepts of tax incidence, discussing both the difference between legal and economic incidence, and efficient taxation in order to explain the difficulty of determining who actually bears the burden of taxes and which taxes are economically most efficient. Thereafter, Part IV analyzes the current personal income tax system using the economics principles developed in Part II. Part V examines the dead-weight loss that results from the current personal income tax system. Part VI discusses alternative tax systems as possible replacements for the personal income tax and, in particular, reviews several consumption tax reform proposals based on the economics principles developed in Part III. The review in Part VI is intended to explain the difficulty of comparing burden-sharing among competing tax systems and of comparing their relative efficiency.

Part VII recognizes the impact of technological developments in electronic commerce on the government's ability to assess and collect taxes effectively and efficiently at the point-of-sale and with minimal dead weight loss and proposes a point-of-sale tax system in the form of a value added tax with mechanisms for the automatic and electronic collection of the tax. The proposed system is explained and evaluated, particularly in light of the criteria normally used by advocates of the income tax, especially progressivity.

II. THE MOVEMENT TO A CURRENCY-FREE ECONOMY[6]

Major financial transactions have been accomplished electronically for several years.[7] Today, electronic consumer transactions eclipse cash transactions in sheer dollar value, although cash payments still constitute the vast majority of transactions.[8] Consumer transactions extend from department store transactions, which have used credit cards for many years, to grocery store transactions, and most recently, purchases of gasoline and toll road collections. For many middle-class individuals, cash transactions have become the exception rather than the norm.[9] For many, cash is only used for small incidental purchases.[10]

Electronic funds transfers ("EFTs") among financial institutions have a long history, dating back to the 1950s and 1960s, and are now increasingly replacing paper checks.[11] Large electronic funds transfers to individuals through direct deposit are now quite commonplace. For example, for several years, employees of even moderate size companies, as a rule have been receiving salary payments through direct deposit.[12] More recently, the government has been dispersing transfer payments electronically as well. For example, Social Security retirement payments are no longer made by check but rather are

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[6] *See* John D. Muller, *Selected Developments in the Law of Cyberspace Payments*, 54 BUS. LAW. 403 (1999) for a discussion of recent developments in e-commerce and electronic fund transfers, some of which is summarized in this part. *See also* Vartanian, *supra* note 5, at 145-48.

[7] The history of this movement from cash to electronic payment is chronicled in SOLOMON, *supra* note 5, at 26-32, 41-42.

[8] *See id.* at 39-40.

[9] *See, e.g.* Randall W. Sifers, *Regulating Electronic Money in Small-value Payment Systems: Telecommunications Law as a Regulatory Model*, 49 FED. COMM. L.J. 701, 703 (noting that most cash expenditures are now primarily made for "small–value cash transactions").

[10] *See id.*

[11] *See* SOLOMON, *supra* note 5, at 26.

[12] *See, e.g.* SIFERS, *supra* note 9, at 705 (noting the use of electronic payment systems has been at first exclusively the domain of larger institutions; however with advanced technology, even small businesses can afford to utilize such payment systems).

accomplished by crediting recipients' accounts directly.[13] Welfare payments and food stamps are also dispersed through electronic benefits transfers ("EBTs") directly onto "smart" cards.[14] It follows that payments from these accounts will also be largely electronic.[15] Even electronic income tax refunds, at the urging of the Internal Revenue Service ("Service"), are becoming more commonplace.[16]

Consumer credit and debit card transactions have evolved more recently than electronic funds transfers, beginning originally as a "retail" phenomenon.[17] Under a credit card arrangement, the bank member of the credit card system that issues the card agrees to provide a line of credit to the cardholder.[18] This line of credit can be used at any member retail establishment.[19] When the card is used to make a retail purchase, the merchant submits, electronically, the charge draft to the merchant's bank, which is a member bank agent, and receives the amount of the draft less a merchant discount (generally based on a percentage of the gross amount of the draft) to compensate the merchant's bank.[20] For example, if the customer charge is $100, the merchant may receive $98 from its bank.[21] The merchant's bank, in turn, submits the charge draft to the cardholder's card-issuing bank and receives the amount of the draft less a fee or discount of perhaps $1.[22] The cardholder's bank then bills the cardholder for the full amount of the draft. Thus, on a $100 charge, which is ultimately paid in full by the cardholder, the merchant may receive $98; the merchant's bank may receive $99 but pay out $98 to the merchant, retaining $1, and the cardholder's bank may receive $100, paying out $99 to

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[13] *See* Peter P. Swire, *Financial Privacy and the Theory of High-Tech Government Surveillance*, 77 WASH. U.L.Q. 461, 469 (1999) (discussing electronic government benefits, including social security and welfare).

[14] *See id. See also* SOLOMON, *supra* note 5, at 79-82.

[15] *See* SOLOMON, *supra* note 5, at 81 (purchases with a smart card resulting in a credit to the vendor's account).

[16] *See for example* I.R.S. Tax Form 1040EZ.

[17] *See* SOLOMON, *supra* note 5, at 30-31.

[18] *See id.* at 54.

[19] *Id.*

[20] *Id.*

[21] *See id.* at 56.

[22] *Id.*

the merchant's bank and retaining $1.[23] Moreover, if the cardholder does not pay the bill timely, interest accrues on the outstanding balance.[24]

Debit cards, or automated teller machine ("ATM") cards, in contrast, are grounded in cash rather than credit transactions.[25] The cardholder who uses a debit card at a merchant's ATM sends an electronic instruction to her bank for the desired cash "by punching the proper commands into the ATM."[26] The electronic message is sent from the ATM to a central processing unit ("CPU"), i.e., a computer that virtually simultaneously (1) sends the electronic message to the customer's bank, which withdraws the appropriate amount from the customer's account and notifies the CPU; (2) receives the notification from the customer's bank; and (3) sends confirmation to the ATM, instructing it to provide the required cash.[27] For these services, a customer generally does not pay a fee if the customer's bank owns the ATM, although a charge is levied if the ATM owner is a different bank.[28]

Importantly, credit card and debit card transactions share a common attribute – both are supported by "real" money; the debit card immediately when the amount is deducted from the cardholder's bank account, and the credit card when the charge is paid by the cardholder.[29] Thus, both transactions travel through a financial institution and are accounted for by the actual movement of bank deposits, backed by reserves. Therefore, the Federal Reserve, as central banker, exercises control over both types of transactions.

Recently, there has been significant growth in internet commerce and a great deal of increased interest in the use of electronic money ("e-money") in internet transactions.[30] In contrast to credit or debit cards, true "e-money" can be created by a private entity, which can be used to purchase goods and services

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[23] *See id.* at 55-57.
[24] *See id.* at 56.
[25] *See id.* at 57, 135.
[26] *Id.* at 135.
[27] *See id.* at 135-37.
[28] *See id.* at 137-38.
[29] *See id.* at 49.
[30] *See id.* at 64.

in a network established or controlled by that entity.[31] In essence, "e-money" is a simple IOU that may not be backed by any reserves.[32] The "e-money" can function as a medium of exchange if it becomes generally accepted by people or companies that engage in commerce over the network. Even if "e-money" becomes accepted, it may never be reflected in any real money account at a financial institution and therefore, under current law, remains outside of the control of the Federal Reserve.[33] Even though both occur electronically, tracing "e-money" is problematic because it is more difficult than tracing official bank money.[34] Nevertheless, as the Internet develops and expands and becomes an increasingly important avenue of commerce, "e-money" is likely to develop and expand as well.

At the present time, the most common means of payment for consumer transactions remains the paper check,[35] although this may be more a result of circumstance than studied preference. Moreover, often the payment of consumer credit card bills is accomplished using paper checks. Thus, the actual purchase transaction is made by credit card and not by check. Although consumers can avoid using paper checks by banking electronically, banks often make payments to the recipient by paper check.[36] Currently, on-line bill presentment and payment is used only by a few major billers such as utilities, cable companies, and credit card companies.[37] However, it is not difficult to foresee ordinary financial transactions by financial institutions and consumers conducted entirely by electronic means.

Cash transactions are popular for small transactions and where privacy is desired.[38] To deal with the fact that credit card transaction costs are significant and uneconomic for small

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[31] *See id.* at 65-66.

[32] *See id.* at 75-78.

[33] *See id.* at 66-68, 75-78.

[34] *Id.*

[35] *See* MULLER, *supra* note 6, at 408.

[36] Note, however, that the bank may also make the payment electronically, if provided with sufficient banking information about the recipient. *See id.* at 408-09.

[37] *See id.* at 410.

[38] *See* SWIRE, *supra* note 13, at 464 ("Nothing in the exchange of cash leaves any record linking the purchaser to the purchase").

purchases,[39] Stored Value Cards have been developed.[40] Current "e-money" technology is capable of delivering products with varying degrees of privacy. For example, it is technologically possible to provide fully anonymous, cash-like systems, in which no personally identifiable transaction records are created.[41] On the other end of the spectrum, it is also technologically possible to provide fully auditable systems that can identify and store every transaction conducted by every consumer.[42] Thus, the choice of which avenue to pursue or what mix to settle upon is less likely to be determined by the technological possibility of the choice than by consumers' desire for privacy in their electronic transactions.

Technology makes it possible for the federal government taxing authorities to follow all commercial electronic transactions, if a fully auditable system were desired. A "blinding" technique, patented by encryption expert and mathematician Dr. David Chaum, can even preserve the anonymity of the user of a Stored Value Card.[43] Under this technique, the bank is able to verify the electronic transfer without learning the identity of the payor.[44] Likewise, the technique prevents the payee from learning the identity of the payer.[45] Further, if the Stored Value Card contains any unused value, it can only be redeemed by transferring that value back to the account from which it originated.[46] A fully

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[39] *See* SOLOMON, *supra* note 5, at 411.

[40] *See id.* at 68-71.

[41] *See, e.g.* SIFERS, *supra* note 9, at 724 ("Anonymity -- the key feature of cash in the eyes of illicit transactors -- can be preserved with smart cards, unlike other forms of verifiable electronic payment mechanisms such as debit cards and credit cards. For example, the use of an anonymous smart card is not identified at the point-of-sale when the card value is discharged. The recipient merely obtains value from the issuer which is eventually cleared through a clearing system, without the user being identified").

[42] *See id.* at 723 ("Electronic payment systems are capable of establishing electronic audit trails with all of the features of non-electronic information").

[43] *See* MULLER, *supra* note 6, at 432. *See also* SOLOMON, *supra* note 5, at 63 (detailing Dr. Chaum's other contributions to "e-money").

[44] *See, e.g. supra* note 41.

[45] *See* Muller, *supra* note 6, at 432.

[46] *See, e.g.* SIFERS, *supra* note 9, at 714 (noting that electronic money may be created with a feature which would require "links to the current owner" such that once a smart card is used to make a payment, any refund of that payment would necessarily go back to the original purchaser's card).

auditable system could eliminate the potential of an electronic black market.[47]

Based on a study sanctioned in October 1996 by Chairman Alan Greenspan,[48] the Federal Reserve has noted that the new payment methods have failed to duplicate the convenience and the widespread acceptance of the current paper-based check system for most consumers and businesses' everyday transactions. The Federal Reserve, however, is seeking to encourage and facilitate new electronic retail payment methods.[49]

This section described how non-cash commerce takes place and highlighted some of the developments that have made electronic transfers more adaptable to consumer use. The review of these techniques and the literature written about them clearly indicates that electronic transfers are receiving much thought in both the private and government sectors.[50] With the current technological developments, a largely currency-free economy is likely to occur in the near future. The substitution of electronic transfers for currency is likely to accelerate as counterfeiting of paper currency becomes easier due to these same technological developments.[51] Such acceleration would be consistent with the transformations that have taken place in the brokerage industry (computerized portfolio accounts have largely replaced share certificates), the mutual fund industry (all accounts are reflected in computerized statements updated to current net asset value virtually daily), and the airline industry (ticket-less travel), among others. Whether these changes are good or bad is immaterial to this paper. What is important is that the movement toward electronic transfers as the principal (and perhaps some day as the only) form of payment in commerce appears inevitable.

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[47] *See id.* at 723 - 724(describing potentially improper uses of electronic money and how they may be prevented through tracing).

[48] *See* MULLER, *supra* note 6, at 430-31.

[49] *Id.*

[50] *See generally* SOLOMON, *supra* note 5 (discussing the various endeavors in electronic transfers).

[51] Other technological developments in the Internet will admittedly create security concerns regarding conducting transactions electronically.

III. ECONOMIC THEORY OF TAX INCIDENCE AND EFFICIENT TAXATION

A. Tax Incidence

Choosing a tax system is the art of burden sharing. While the choice of a burden-sharing system establishes the legal or statutory incidence of the tax, it does not determine who actually bears the economic burden or economic incidence of the tax.[52] Determining who bears the economic incidence requires substantially more analysis of the tax effect on the goods and labor markets.[53]

1. Economic Incidence of a Tax, in General

Determining the economic incidence of a tax is complicated, yet important because it is situated at the heart of the political debate of who should bear the burden of taxes and whether that burden is distributed fairly. If one were to conduct a survey, one would suspect that most taxpayers would say they bear a disproportionately large burden of the tax. However, even if the survey respondents were completely aware of the legal incidence of the tax, i.e., who bears the legal responsibility for and actually pays the tax, it is unlikely that they would know who bears the actual burden of the tax, i.e., the economic incidence of the tax.

A simple example will illustrate this point. If the federal government were to decide to impose a $0.60 tax on a gallon of gasoline, it could do so in two ways.[54] First, the federal government could impose that tax on the gasoline seller, so that for each gallon of gasoline sold the seller is liable for the $0.60 tax.[55] One would conclude, at least upon casual observation, that the

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[52] *See generally* HAL R. VARIAN, INTERMEDIATE MICROECONOMICS (4th ed. 1996); ANDREW B. ABEL & BEN S. BERNANKE, MACROECONOMICS (3d ed. 1998); and HARVEY S. ROSEN, PUBLIC FINANCE (5th ed. 1999).

[53] *Id.*

[54] *See* VARIAN, *supra* note 52, at 289-91; ROSEN, *supra* note 52, at 260-63.

[55] *See* ROSEN, *supra* note 52, at 262 (illustration of legal incidence of tax on seller).

seller bears the burden of that tax.[56] Alternatively, the federal government could impose the statutory burden of the tax on the gasoline buyer by requiring the buyer to pay an additional $0.60 for each gallon of gasoline purchased.[57] Under this scenario, a casual observer would conclude that the buyer bears the burden of tax.[58] In fact, both of these situations are economically equivalent,[59] and how the burden of the tax is shared between the buyer and the seller under either of these situations cannot be determined unless an analysis is done regarding the effect of the tax on the price of the gasoline.

Assume the seller has the legal responsibility to pay the tax. If the price of gasoline increases by the same $0.60 for which the seller is legally liable upon the sale of a gallon of gasoline, one can conclude that the buyer bears the burden or economic incidence of the tax.[60] On the other hand, if the price to the buyer remains the same because the seller absorbs the entire tax without increasing the price, one can conclude that the economic incidence of the tax falls on the seller.[61] Finally, the seller could pass only a portion of the tax to the buyer, in which case the economic incidence of the tax would be shared by the buyer and the seller, even though the legal incidence is imposed on the seller.[62]

A similar analysis can be used if the legal incidence of the tax is instead imposed upon the buyer.[63] The results with regard to how the burden is shared between buyer and seller will be identical.[64] Because the legal incidence of a tax does not determine its economic incidence, a tax is more properly described as imposed upon transactions rather than either buyer or seller.[65] Thus, in analyzing the distributional effect of a tax, one must look past the

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[56] *Id.*

[57] *Id.* at 260 (illustration of legal incidence of tax on buyer).

[58] *See* VARIAN, supra note 52, at 290-91.

[59] *See id.* at 289-91 for a mathematical demonstration of this equivalence. *See also* ROSEN, *supra* note 52, at 260-63.

[60] *See* VARIAN, *supra* note 52, at 290.

[61] *Id.*

[62] *See id.* at 298-95.

[63] *See id.* at 290.

[64] *Id.*

[65] *See generally supra* note 59.

legal incidence of the tax to the economic incidence.[66] One can not determine the amount of "tax shifting" that will occur *a priori*.[67]

Conclusions drawn from the foregoing examples can be extended to other taxes. For example, consider an income tax where tax rates are equal for all concerned. Inclusion of an amount in the recipient's income should be the economic equivalent of denying a deduction for that amount to the payor. Accordingly, excluding interest payments from a recipient's income and disallowing a deduction for the interest to the payor would be equivalent to allowing a deduction to the payor but including the interest as income to the recipient. In reality, the former method is likely to have a greater impact on redistribution of wealth because tax rates vary among taxpayers and, in particular, many lenders are tax-free entities such as pension funds.

While the legal incidence of the corporate tax is borne by the corporation, a faceless entity, people must bear the economic incidence. These people may include the stockholders of the corporation, the owners of land or equipment leased to the corporation, lenders to the corporation, employees of the corporation, and consumers who purchase the corporation's products. The portion of the tax attributable to the production process will be borne by the factors of production, including both the suppliers of capital (i.e., the stockholders, lenders of money, and lessors of land and equipment) and the laborers (i.e., employees). To the extent that the tax is reflected in the price of the corporation's products, the tax will be borne by consumers. Complicating the analysis, there are substantial cross-overs in these roles. For example, laborers may also be consumers. Likewise, both laborers and consumers may also be stockholders of the corporation or of another corporation that bears the legal incidence of the corporate income tax.

The economic incidence of tax affects the distribution of tax burdens among income classes. Assume the government imposes a $0.60 per gallon gasoline tax on sellers. Suppose all gasoline sellers tend to be rich and buyers tend to be poor. It is unclear that the poor buyers do not bear a disproportionate share of the

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[66] *See* VARIAN, *supra* note 52, at 293-95.

[67] *See* ROSEN, *supra* note 52, at 263-65.

tax.[68] Furthermore, the economic incidence of the tax depends upon how the tax revenues are used.[69] For example, if the proceeds of the gasoline tax imposed upon the seller of gasoline are used to feed the homeless, the tax and its disposition will have a redistributive effect from the wealthier to the poorer.

2. *Determining the Economic Incidence of a Tax*

The incidence of a tax imposed per unit of product or as a proportion of the price of a product depends on the elasticities of supply and demand for that product.[70] The more elastic the demand curve for the product,[71] the smaller the effect of a per unit tax on the price of the commodity and therefore, the smaller the burden of that tax which will be borne by the consumer.[72] Similarly, the more elastic the supply curve for the product,[73] the smaller the portion of the tax that will be borne by producers[74]. For example, if the demand curve is inelastic because consumers cannot readily turn to other products as substitutes for the product to be taxed, a change in price will have very little effect on the amount demanded and the consumers will bear the greatest portion of the economic incidence of the tax.[75] Similarly, when supply is inelastic,[76] the tax will be borne by the supplier.[77] If the

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[68] This is an example of a regressive tax. Poor buyers may bear a disproportionate share of the tax in relation to their income. They will pay a higher percentage of their income on gasoline, compared to rich buyers, who have more money to spend. *See, e.g.* ROSEN, *supra* note 52, at 258 (a tax is regressive where the average rate of tax increases as income decreases).

[69] *See, e.g.* VARIAN, *supra* note 52, at 256-57.

[70] *See* ROSEN, *supra* note 52, at 263-65.

[71] That is, the greater the percentage change in demand that occurs as a result of a one percent change in price, and therefore, the more responsive the quantity demanded is to a price change (the flatter the demand curve). *See* VARIAN, *supra* note 52, at 265-68.

[72] *See* ROSEN, *supra* note 52, at 264.

[73] That is, the greater the percentage change in the supply of a product that will be forthcoming as a result of a one percent change in its price, and therefore, the more responsive the quantity supplied is to a price change. *See* VARIAN, *supra* note 52, at 294.

[74] *See* ROSEN, *supra* note 52, at 264.

[75] The supply and demand functions will be influenced by the degree of competitiveness in the relevant industry being studied. *See* VARIAN, *supra* note 52, at 283-84.

[76] Inelastic supply is essentially fixed and is depicted by a vertical or near vertical supply curve. *See id.* at 285.

[77] *See* ROSEN, *supra* note 52, at 264.

supply is perfectly inelastic, i.e., the supply curve is perfectly vertical because supply is fixed in amount, the producer will bear the entire burden of the tax because the equilibrium price after imposition of the tax will remain at the original price, thereby relieving consumers of the burden of that tax entirely.[78]

This analysis applies both to per unit and *ad valorem* taxes.[79] *Ad valorem* taxes are taxes imposed as a percentage of the price.[80] For example, the District of Columbia imposes an *ad valorem* tax on most goods at the rate of six percent. State and local sales taxes on food and clothing and the European style of VATs are examples of *ad valorem* taxes.[81] The economic analysis involving shifting curves is somewhat different from that involving a per unit tax in that the *ad valorem* tax shifts curves proportionately, in contrast to a per unit tax, which shifts curves uniformly at each place along the curve.[82] However, the analysis of economic incidence of the tax is essentially the same.[83] The incidence of the tax is determined by the elasticities of supply and demand for the product.[84]

As illustrated above, a tax imposed on any product will be shared by producers and consumers, depending upon the nature of the supply and demand for the end product.[85] Similarly, a tax imposed upon a factor of production will be shared between the supplier of that factor and the business firm that uses the factor to make the final product.[86] The burden sharing will also be determined in accordance with the supply and demand functions for that factor of production.[87] For example, consider the economic incidence of the payroll taxes used to finance social security. These taxes are imposed on the worker at the rate of 7.65% of a

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[78] *See* VARIAN, supra note 52, at 293-94; *see also* ROSEN, *supra* note 52, at 263-65, (for graphical analyses of these special cases).

[79] *See* ROSEN, *supra* note 52, at 265.

[80] *Id.*

[81] *See id.* at 265, 447.

[82] *See id.* at 265.

[83] *See id.* at 265-66 (for a graphical analysis of these taxes).

[84] *See id.* at 266.

[85] *See supra* notes 52 - 84, and accompanying text.

[86] *See id.* at 266-68 (for examples of tax on factors of production).

[87] *Id.*

worker's earnings, and on the employer, also at the rate of 7.65% of the worker's earnings.[88] The economic incidence of the total tax of 15.3% is dependent upon the supply and demand for labor faced by the particular firm and not simply upon the legal incidence of the tax.[89] Moreover, different industries face different supply and demand curves for labor, making a general conclusion about the economic incidence of payroll taxes impossible to reach without substantial information on the relevant elasticities of the supply and demand functions for labor in the industry.[90]

The analysis becomes substantially more complicated when it is extended to an analysis of general equilibrium. General equilibrium analysis involves looking at the secondary and tertiary effects of changes to the supply and demand curves of an industry or factor.[91] For example, suppose a tax is imposed on gasoline as in the illustration above. A partial equilibrium analysis involves the determination of the sharing of that tax between buyers and sellers of gasoline. A general equilibrium analysis involves the effects on other markets of that portion of the tax borne by buyers or sellers. If buyers of gasoline are farmers, for instance, and they bear a portion of the economic incidence of the tax, they may reduce the use of gasoline and, in turn, reduce production of agricultural products or substitute labor for mechanization, or both, thereby altering their supply functions. This may reduce the marginal product of labor and thereby the equilibrium wage rates in that industry. In that way, the tax on gasoline may be borne, in part by farm laborers or, more graphically, perhaps migrant farm workers who do not even drive or buy gasoline directly. Moreover, producers of complementary goods and owners of their factors of production will also be adversely affected. Thus, if the tax is imposed on an item that has a substantial effect on other markets, general equilibrium analysis, which takes into account the ways in which various markets are interrelated, would be necessary in order to truly understand the economic incidence of the tax.

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[88] *See, e.g.* I.R.C. § 3101 (payroll tax on employees) *and* § 3111 (payroll tax on employers).

[89] *See* ROSEN, *supra* note 52, at 274-75.

[90] *See id.* at 267.

[91] *See id.* at 274.

Thus, in order to determine who bears the burden of a tax, the complicated partial and general equilibrium analyses must be pursued. The determination involves analysis of market structure, supply and demand elasticities, mobility of factors of production, and perhaps many other issues. Many taxes, such as the corporate income tax, have an uncertain incidence. One can conclude that a tax imposed on the income of a corporation almost certainly is not borne entirely by the shareholders of the corporation.[92] Beyond that, it is very difficult to determine how that tax is shared. Simple statements about the incidence of a tax tend to be wrong because of the multiple effects on market equilibrium.

B. Taxation And Efficiency

Because taxes are a means of raising revenue, the minimum requirement of an efficient tax is that it costs consumers no more than the taxes collected. On first observation, it would appear that most taxes achieve that goal, without taking into account the direct and indirect costs of computing and collecting the tax.[93] However, the potential inefficiency of taxes is much greater than at first appears. Some taxes distort economic decisions and arguably result in a loss of general welfare. To the extent that a tax distorts economic decisions and results in a loss of welfare in excess of the tax revenues collected, the taxes are said to involve an "excess burden."[94] This "excess burden" is sometimes referred to as a "welfare cost" or "deadweight loss."[95]

Excess burden occurs because a tax generally forces consumers to accept lower amounts of utility than they had previously enjoyed by choosing a different mix of products, represented by a move to lower indifference curves.[96] Consumers choose a different mix of goods in part because the tax reduces the total amount of goods they can purchase (the wealth effect) and in part because the consumers substitute other goods for those that are taxed (the

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[92] *See id.* at 282.

[93] *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at132-33 (discussing generally the costs of compliance with the tax laws).

[94] *See* VARIAN, *supra* note 52, at 297; ROSEN, *supra* note 52, at 284.

[95] *See* VARIAN, *supra* note 52, at 295-97.

[96] *See* ROSEN, *supra* note 52, at 285-88 for a graphical representation of this phenomenon.

substitution effect).[97] The reduction in utility is measured by the amount of reduced income the consumer necessarily would have suffered in order to place her at her post-tax level of utility.[98] Thus, the true loss inflicted on the consumer is not the tax paid, but rather the amount of reduced income that would have caused the same decrease in utility.[99]

In contrast to unit and *ad valorem* taxes on commodities, an income tax, which merely reduces the consumer's budget constraint to a lower level, appears less distortive than a tax on commodities; however, an income tax distorts the consumer's choice between leisure and work, and, therefore, between leisure and all other goods.[100] As such, it too has a distortive effect and entails an excess burden.[101]

The nature and extent of the distortive effect of the income tax depends upon the following two effects that must be analyzed independently: (1) the income effect, which is due solely to the loss of income because relative prices of leisure and other goods are unaffected; and (2) the substitution effect, which occurs because the income tax causes leisure to become relatively less expensive than other commodities, which can only be purchased with income subject to tax.[102] These effects may be additive or they may be offsetting. As a matter of pure theory, it is unclear which effect predominates and, therefore, whether the income tax depresses the supply of labor because the substitution effect causes people to substitute untaxed leisure for taxed work, or whether the income effect increases the supply of labor because it reduces workers' wealth and causes them to work more hours in order to sustain their current standard of living.[103]

It should be noted that although most taxes create some distortion and generate excess burdens, such a burden does not necessarily mean that the tax is bad. If the government requires revenue raised through taxes, excess burdens are unavoidable.

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[97] *See id.* at 292; SLEMROD & BAKIJA, *supra* note 4, at 104.

[98] *See* ROSEN, *supra* note 52, at 285-86.

[99] *See id.* at 286-87.

[100] *See* SLEMROD & BAKIJA, *supra* note 4, at 105-06.

[101] *See* ROSEN, *supra* note 52, at 297-99.

[102] *See id.* at 525.

[103] *See id.* at 376-79 (for a graphical analysis of the effects of an income tax).

Indeed, even if we could determine the excess burden, society may be satisfied with a trade-off involving some amount of excess burden in order to achieve greater fairness, however that may be defined. Nonetheless, before the trade-off can be evaluated, the excess burden of a particular tax must be known, and that is a complicated task.

Moreover, where multiple taxes are used, such as an income tax in addition to a tax on commodities, it is unclear whether any one tax increases or decreases distortions. This means that a single tax cannot be studied in isolation but rather must be studied in conjunction with all other taxes and perhaps even all other distorting factors in the economy.

Finally, one can conclude, at least in theory, that the most efficient tax is the one that minimizes excess burdens.[104] The overall excess burden will be minimized when the marginal excess burden of the last dollar of revenue raised from each commodity is the same.[105] To the extent that these marginal excess burdens are not equal, the overall excess burden can be lowered by raising the tax rate on the commodity with the smaller marginal excess burden or by lowering the tax on the commodity with the larger marginal excess burden.[106] This rule, however, does not translate into equal tax rates on all commodities.[107] Because elasticities of demand for commodities differ, the marginal excess burdens may be equalized with different tax rates applied to various commodities.[108] This analysis is complicated even further when one includes income taxation because of the income and substitution effects with regard to leisure, also a commodity.[109] Moreover, even a tax that minimizes excess burden may not be acceptable unless society is satisfied that it is "fair." What seems clear, however, is that simple statements about inefficiencies of taxes, due to incentive and disincentive effects, are likely to be misleading oversimplifications.

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[104] *See id.* at 284.

[105] *See id.* at 310-13.

[106] *Id.*

[107] *Id.*

[108] *Id.* at 310-13.

[109] *See id.* at 313.

IV. PERSONAL INCOME TAXATION

Both the incidence and the efficiency of a tax system depend upon how taxes affect behavior.[110] An income tax system, even one that does not contain tax incentive subsidies, influences labor supply, saving, consumption, and portfolio decisions.[111] The current income tax system influences, and is indeed intended to influence, other behavior, including housing choices,[112] business equipment purchases,[113] research and experimental expenditures,[114] expenditures on low income housing,[115] loans to state and local governments evidenced by state or local bonds,[116] and a myriad of other decisions.

A. Effect on Labor Supply

Perhaps the most important behavioral incentive involves the effect of the taxation of income itself on the labor supply.[117] As explained above, an income tax exempts leisure from taxation and, therefore, causes a substitution of leisure for other commodities.[118] On the other hand, an income tax also reduces the wealth of the taxpayer, and therefore, may cause the taxpayer to work more hours to compensate for the reduced wealth.[119] Accordingly, theory alone can not predict whether the income tax depresses or increases the supply of labor.[120]

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[110] For a general discussion, *see id.* at 376-85.

[111] *See* SLEMROD & BAKIJA, *supra* note 4, at 102 *et seq* (illustrating the various influences of tax on individual behaviors, and how some may work in opposite directions).

[112] *See, e.g.* I.R.C. § 163(h)(3)(deduction for home mortgage interest).

[113] *See, e.g.* I.R.C. § 168 (accelerated cost recovery systems for tangible depreciable property).

[114] *See* I.R.C. § 174 (deduction for research and experimental expenditures) and § 41 (credit for increasing research activities).

[115] *See* I.R.C. § 42 (credit for building low income housing).

[116] *See* I.R.C. § 103 (interest on state and local bonds excluded from gross income).

[117] *See* SLEMROD & BAKIJA, *supra* note 4, at 103.

[118] *See supra* notes 102-03, and accompanying text.

[119] *Id.*

[120] *See* ROSEN, *supra* note 52, at 376-79. *See also* Joseph Bankman & Thomas Griffith, *Social Welfare and the Rate Structure: A New Look at Progressive Taxation*, 75 CAL. L. REV. 1905, 1920 (1987) (discussing the substitution and income effects on taxation); Martin J.

The simple analysis above can be most easily understood if the income tax is assumed to be imposed at a uniform or flat rate. But even with such a tax, the net impact of the substitution and the income effects yields uncertainty and, in addition, may yield a different result for different taxpayers, depending upon their wealth, level of income, desire for leisure, need for savings, and non-pecuniary rewards from work.[121]

When one complicates the analysis by assuming a progressive tax in which different levels of income are taxed at different rates, the analysis can proceed along the same theoretical lines, except that the after-tax demand curve for leisure is no longer linear, as it would be with a proportional tax, but becomes convex.[122] The convexity of the curve demonstrates a greater distortion and incentive toward leisure at the high end of the income spectrum. To the extent that there is variation among individuals in the choice of work or leisure with the imposition of a flat tax, an even greater variation with the imposition of a graduated tax rate is likely.[123]

One can only determine the effect of the tax on the work/leisure trade-off empirically,[124] and even then, one is unlikely to be able to conclude much about its effect on labor without specifying the type of labor, level of compensation for that labor, and the supplier of that labor (e.g., male or female, old or young,

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McMahon, Jr. & Alice G. Abreu, *Winner-Take-All Markets: Easing the Case for Progressive Taxation*, 4 FLA. TAX REV. 1, 58-59 (1998) (exploring the economic theory underlying the effect of tax rates on the labor supply and its manifestation in the income and substitution effects); Lawrence Zelenak, *The Reification of Metaphor: Income Taxes, Consumption Taxes and Human Capital*, 51 TAX L. REV. 1, 12 n. 50 (1995) (offering an example of the operation of the substitution and income effect on consumption).

[121] *See* BANKMAN & GRIFFITH, *supra* note 120 , at 58-59 (arguing the difficulty that economic theory has with predicting whether the income or substitution effect will predominate); Lawrence Zelenak & Kemper Morelan, *Can the Graduated Income Tax Survive Optimal Tax Analysis?*, 53 TAX L. REV. 51 n.5 (1999) (discussing the income and substitution effects).

[122] *See* ROSEN, *supra* note 31, at 378-79 (for a graphical analysis of this phenomenon).

[123] *See* Lawrence Zelenak, *The Selling of the Flat Tax: The Dubious Link Between Rate and Base*, 2 CHAP. L.REV. 197, n. 110 (1999) (arguing that a graduated cash flow tax "may cause substantial deadweight loss even if the net result of the income and substitution effects is no change in observed behavior").

[124] *See* ROSEN, *supra* note 52, at 379-80 (summarizing some empirical findings). *See also* Robert Triest, *Fundamental Tax Reform and Labor Supply*, *in* ECONOMIC EFFECTS OF FUNDAMENTAL TAX REFORM 247, 256 (Henry J. Aaron & William G. Gale eds., 1996).

married or single).[125] Indeed, for higher income taxpayers, it is entirely possible that an increase in the marginal tax rate will reduce the amount of labor supplied sufficiently to reduce the overall tax collection from that taxpayer.[126] This is an example of the "Laffer" curve, which depicts a hypothesis in which a tax rate exceeding a certain level causes revenue to fall rather than rise.[127] While the Laffer curve relationship has been largely discredited for taxpayers in general,[128] it has continuing vitality for high marginal rate taxpayers because it seems clear that the revenue-maximizing tax rate is not the same for all income groups or for all types of income.[129] In addition, if tax revenues are used to provide public goods, there may be a further disincentive towards work and therefore, an incentive towards leisure.[130] Further, under the current income tax system, the degree of progressivity is likely to affect the compensation package of laborers. High marginal rates generate non-taxable fringe benefits as a substitute for cash compensation and stock options as a substitute for cash bonuses.

B. Effect on Saving

Of even greater current interest in the tax policy debate than the effect of tax rates on the supply of labor, is the effect of tax rates on saving.[131] The importance of the income tax and high tax rates on savings is the effect on investment and capital. The availability of capital to finance investment is dependent upon savings, and to the extent savings are adversely affected by income

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[125] *See* ROSEN, *supra* note 52, at 380-82.

[126] *See id.* at 383-85

[127] For a detailed description of the Laffer Curve, *see* ALFRED L. MALABRE, JR., LOST PROPHETS 181-82 (1994); *see also* Joel B. Slemrod, *On the High-Income Laffer Curve*, in TAX PROGRESSIVITY AND INCOME INEQUALITY 177, 203 (Joel B. Slemrod ed., 1994).

[128] *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at 124-125 (noting that all but the "most ardent supply-siders" believe that labor supply responds significantly to tax cuts); *see also* ROSEN, *supra* note 52, at 384-85.

[129] *See* ROSEN, *supra* note 52, at 382-85.

[130] *See id.* at 164-96 (discussion of the influence of welfare as a disincentive to work).

[131] For a general discussion, *see id.* at 385-94.

taxes, there will be a shortfall in capital and theoretically a decline in future productivity.[132]

Consumption tax proponents argue that income taxation depresses savings because it alters a taxpayer's choice between present and future consumption, creating a bias towards present consumption.[133] This bias occurs because the tax imposed on the earnings of savings reduces those future earnings.[134] Consumption tax proponents argue that savings are taxed twice under an income tax.[135] Because of this double tax, they conclude that the income tax results in less savings and more present consumption than would occur in the absence of an income tax.[136]

In fact, an economic analysis of the taxation of income, including earnings on savings, shows a combination of effects, the net result of which is uncertain.[137] The taxation of interest income, taken alone, should cause a substitution of current consumption for future consumption and therefore, a reduction in savings.[138] This is an example of the substitution effect.[139] However, the taxation of interest income reduces a taxpayers' future wealth and may cause the taxpayer to save more in order to offset that reduction in future wealth.[140] This is an example of the income effect.[141] The substitution effect and the income effect may work in the same direction, thereby reducing savings, or they may work

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[132] *See* ABEL & BERNANKE, *supra* note 52, at 119. *See also* Thomas Michael Federico, *Recent Congressional Consumption Tax Proposals: A Theoretical Inquiry into their Effects on the Declining U.S. Saving Rate*, 7 U. FLA. J. L. & PUB. POL'Y 337, 357 (1996) (savings are adversely affected under the income tax because they are taxed twice); M. Scotland Morris, *Reframing the Flat Tax Debate: Three Not-So-Easy Steps for Evaluating Radical Tax Reform Proposals*, 48 FLA. L. REV. 159, 172 (1996) (noting that an income tax taxes both consumption and savings, while a consumption tax does not tax savings).

[133] *See id. See also* SLEMROD & BAKIJA, *supra* note 4, at 168-70.

[134] *See* SLEMROD & BAKIJA, *supra* note 4, at 109.

[135] *See* FEDERICO, *supra* note 132, at 357.

[136] *See, e.g.* ARCHER, *supra* note 3, at 3-4.

[137] *See* ROSEN, *supra* note 52, at 385-94.

[138] *See id.* at 389 (where tax reduces the rate of interest received, the opportunity cost for consuming a dollar in the present becomes more appealing than consuming that same dollar, plus the reduced interest, in the future).

[139] *See* SLEMROD & BAKIJA, *supra* note 4, at 104.

[140] *See* ROSEN, *supra* note 52, at 390.

[141] *Id.*

in opposite directions, creating offsetting effects with an uncertain net result.[142]

To complicate matters further, some returns on savings, such as capital gains, are not taxed until realized and even then are taxed at preferential rates,[143] so the current form of the income tax may involve different substitution and income effects than the simpler model in which all earnings are taxed at a uniform rate.[144] In addition, with the varying tax rates of a progressive tax system and varying tradeoffs regarding present and future consumption, generalizations about the effect of the income tax on savings become even more suspect.[145] These complications lead one to conclude that the effect of taxation on savings cannot be predicted without empirical work. Moreover, since the effect of interest rates on the magnitude of savings is a subject of controversy,[146] the effect of taxation on that interest income cannot be determined with certainty.

Even if high rates of income tax could be shown to depress desired savings and capital formation, a conclusion about the advisability of adopting or retaining an income tax would still require more analysis. The question is not simply whether income taxation affects capital formation, but rather whether it affects capital formation more than other alternative methods of taxation. An answer to this question depends in large part on a problematical analysis of the incidence of alternative forms of taxation.[147]

Finally, even if the income tax does adversely affect savings or, conversely, if incentives could be built into the income tax to encourage savings, the savings would only positively affect productivity in the economy to the extent they remained available

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[142] *Id.*

[143] I.R.C. § 1 (h) (maximum capital gain rate). *See* I.R.C. § 1222 (9) (capital gain net income defined).

[144] *See* ANDREWS, *supra* note 2, at 1115.

[145] *See* SLEMROD & BAKIJA, *supra* note 4, at 110.

[146] *See* Eric M. Engen & William G. Gale, *The Effects of Fundamental Tax Reform on Saving*, *in* ECONOMIC EFFECTS OF FUNDAMENTAL TAX REFORM 83, 96 (Henry J. Aaron & William G. Gale eds. 1996).

[147] *See* Engen & Gale, *supra* note 146, at 83-84.

for domestic uses. To the extent that savings financed international investment, the effect on productivity would be nil.

V. DEADWEIGHT LOSS: COST OF ADMINISTERING THE PERSONAL INCOME TAX SYSTEM

A. Direct Costs of the Personal Income Tax System

For simplicity, theoretical analyses of alternative tax systems in terms of efficiency and equity often assume that tax collection involves no direct administrative costs.[148] If one departs from this unrealistic assumption, one must then evaluate a tax system by taking into account the costs of running the tax system, which include the costs of collecting the taxes and the costs incurred by taxpayers both in complying with the tax system and in planning within the tax system. Compliance and planning costs include the professional services of accountants and tax lawyers as well as the taxpayer's own time and efforts.

Joel Slemrod estimated that the direct cost of running the Federal income tax system was around $75 billion.[149] This figure consists of the total compliance cost of the individual income tax ($50 billion), the total compliance cost of the income tax imposed on businesses other than self-employed individuals ($20 billion), and the Service budget devoted to income tax ($5 billion).[150] Seventy-five billion total equals about 10% of the revenue collected from the income tax.[151] This estimate was based on surveys of 2,000 Minnesota taxpayers for studies published by Slemrod and Sorum and by Slemrod and Blumenthal, in 1982 and 1989,

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[148] *See* ROSEN, supra note 52, at 376 - 94 (looking at effect of tax rate and labor supply on savings at labor supply). Costs of compliance tend to be treated as a separate category of analysis. *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at 131-33; *see generally* FRONTIERS OF TAX REFORM, *supra* note 4 (which sets forth various tax reform proposals, none of which deal with any specificity with the expected costs of compliance).

[149] Joel Slemrod, *Which is the Simplest Tax System of Them All? in* ECONOMIC EFFECTS OF FUNDAMENTAL TAX REFORM 355, 368 (Henry J. Aaron & William G. Gale eds. 1996).

[150] *Id.* at 357-58.

[151] *Id.* at 358.

respectively.[152] The results were then extrapolated to the entire United States.[153]

Other studies on taxpayer compliance costs have also been conducted. The consulting firm of Arthur D. Little (ADL), for example, in a survey commissioned by the Service to estimate the paperwork burden of the federal income tax reporting system estimated that individuals spent approximately 1.6 billion hours and businesses approximately 2.7 billion hours on tax compliance in 1983.[154] James L. Payne translated these time expenditures into dollar values by multiplying the hours by an appropriate average hourly value of time adjusted to 1985.[155] This method of analysis generated an estimated taxpayer compliance cost for 1985 of $153.6 billion.[156] If one also included in the computation the cost of hiring professional assistance, the total cost of taxpayer compliance would be approximately $159.4 billion for 1985 and $225.8 billion after adjusting to 1995 dollars.[157] Arthur Hall, using similar methods, reached a 1995 estimate of taxpayer compliance cost of $141.4 billion.[158] The principal difference between the estimates of Payne and Hall, which Slemrod views as too high,[159] and Slemrod's own estimates involves the much higher average value on time spent on tax compliance used by Payne and Hall than by Slemrod.[160]

Based upon a study commissioned by the Service, Robert Hall and Alvin Rabushka indicate that the direct costs of running the federal income tax system would be $159 billion per year in

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[152] *See Id.* at 361, n.9.

[153] *See id.* at 363.

[154] *See Id.* at 364-65; *but see* SLEMROD & BAKIJA, *supra* note 4, at 132-33 (arguing that the studies on the costs of compliance conducted by Arthur D. Little, and relied upon by the Service, were flawed and thus make any estimates based upon them unreliable).

[155] *See* SLEMROD, *supra* note 149, at 365. *See generally* JAMES PAYNE, COSTLY RETURNS: THE BURDEN OF THE U.S. TAX SYSTEM (1993).

[156] SLEMROD, *supra* note 149, at 365. *See also* ARTHUR D. LITTLE, DEVELOPMENT IN METHODOLOGY FOR ESTIMATING THE TAXPAYER PAPERWORK BURDEN, I-7 (1988).

[157] *Id.* at 369.

[158] *Id.* at 366. *See also* Arthur P. Hall, Compliance Costs of Alternative Tax Systems, Ways and Means Testimony, Tax Foundation, *Special Brief* (June); *see also* Replacing the Federal Income Tax: Hearings Before the House comm. On Ways and Means, 104th Cong. 164 (1995) (Arthur P. Hall testifying).

[159] *See id.*

[160] *Id.*

1985.[161] In their own estimate of direct costs, Hall and Rabushka include a minimum of $100 billion in taxpayer compliance costs, including costs of filing and buying expert advice.[162] They estimate the costs of planning, such as consulting with lawyers and other tax planners, to be at least another $35 billion.[163] Lobbyists add another $50 billion,[164] for a total of at least $185 billion per year in direct costs. These estimates do not attempt to account for imperfections of the system, which, for example, Hall and Rabushka estimate allow $100 billion to escape taxation through tax evasion.[165] Nor do they deal with the indirect costs of the present system, including disincentive effects that reduce output and cause a misallocation of resources, which Payne estimates to approach $200 billion.[166] Hall and Rabushka's estimates also do not account for the cost to the Service of administering the tax laws, estimated by Slemrod at approximately $5 billion.[167]

Thus, in contrast to the theorizing done to estimate and evaluate the excess burdens resulting from the taxes themselves, the administrative costs of running the current system are much clearer and impose a significant deadweight loss on the economy. Moreover, there is no question regarding offsetting effects that may be involved. Administrative costs, including both those incurred by the government tax collectors and the taxpayers subjected to the tax, reduce social welfare. Whether those administrative costs amount to $75 billion, $159 billion, or even $275 billion, they are nevertheless very large. Further changes brought about by the tax legislation of 1993 and 1997,[168] which

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[161] HALL & RABUSHKA, *supra* note 4, at 7; *but see* SLEMROD & BAKIJA, *supra* note 4, at 132-33 (arguing that the studies on the costs of compliance conducted by Arthur D. Little, and relied upon by the Service were flawed and thus make any estimates based upon them unreliable).

[162] HALL & RABUSHKA, *supra* note 4, at 11-12 (noting that the advent of computer tax software may help to reduce the costs of compliance).

[163] *Id.* at 19.

[164] *Id.*

[165] *Id.* at 15.

[166] SLEMROD, *supra* note 149, at 365, n.18; *see also* PAYNE, *supra* note 155.

[167] *Id.* at 368.

[168] *See* Taxpayer Relief Act of 1997, Pub. L. No. 105-34, 111 Stat. 788; Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 107 Stat. 312.

have arguably added additional complexity to the system,[169] may have increased these costs.

In addition, tax evasion involves societal costs in addition to the lost revenue, estimated by Hall and Rabashka at $100 billion.[170] A tax system that is prone to tax evasion is one that will involve even greater administrative costs since the revenue collectors expend a portion of their budget to stop the evasion.[171] A tax system that can be avoided is likely to generate an underground economy in which incentives and prices differ from the legal economy, likely adding to inefficiencies in the economy.[172]

Administrative and compliance costs can substantially affect the excess burdens resulting from a tax system and, therefore, its desirability. A tax system that minimizes administrative and compliance costs is a system that should enjoy a presumption of greater efficiency than a tax system which involves substantial administrative and compliance costs. While minimizing these costs should not be the only objective of tax reform or the sole determinant for the selection of a tax system, it is surely an important factor that must be carefully considered in evaluating competing systems.

Whatever the merits of the arguments regarding the incidence of the income tax and the direction and seriousness of the disincentives towards work and savings, it cannot be overemphasized that the current income tax system is very expensive to administer, both to the government and to the taxpayers who are subjected to it.[173] Further, the system fails to take advantage of technological capabilities regarding electronic money transfers that have been developed during the last few years.[174] Instead, the income tax system is based upon a method

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[169] Additional changes in the tax law tend to add to complexity. *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at 141 (noting that the tax code becomes more complex as each lobby group gets input).

[170] HALL & RABUSHKA, *supra* note 4, at 15.

[171] *See* SLEMROD & BAKIJA, *supra* note 4, at 149.

[172] *See id.* at 151-52.

[173] *See supra* notes 149-72 and accompanying text.

[174] Computer technology, however, has, to be sure, assisted in compliance. But, computer assistance in compliance may have fostered additional computational complexity. *See, e.g.* George Guttman, *Microsoft Launches Tax Software Product*, 85 TAX NOTES 1628 (1999).

of collection and record keeping that was acceptable in the early part of the Twentieth Century.[175] It relies upon an annual self-assessment by the taxpayer whereby each taxpayer must separately compile the relevant information and compute the income tax. Thus far, even attempts to move the system into a paperless tax return system, thereby making use of computer technology, have been unsuccessful.[176]

The direct costs of running an income tax system create a substantial burden to the economy.[177] The income tax is often defended, however, as a means of attaining fairness in burden sharing.[178] Nevertheless, if revenue could be collected in a substantially more efficient way, the economy would benefit.

B. An Explanation of Why the Personal Income Tax System is Costly

The reasons for the high direct cost of the current income tax system include the following: (1) the antiquated method of computing and reporting annual income;[179] (2) the excessive personalizing of the income tax in order to achieve a perceived

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Furthermore, although President Clinton has proposed an electronic filing credit, where taxpayers get an additional $10 credit for filing electronically, tax analysts are skeptical as to whether it would significantly increase electronic filings, as well as concern that it add to an already profligate system of tax credits. *See* George Guttman, *News Analysis: Clinton Administration Wants Electronic filing Credit*, 86 TAX NOTES 451, 451-454 (2000).

[175] *See* FEDERAL INCOME TAXATION, *supra* note 1, at 4 (noting that the "structural and policy conflicts have changed little over time" in the tax provisions). *See for example* George Guttman, *Electronic Tax Administration: Still a Long Way To Go*, 81 TAX NOTES 811, 815-17 (1998) (one barrier to the implementation of a new electronic filing system includes the continued requirement for actual signatures).

[176] Despite publicity, the IRS does not get many electronic returns. Many people still file paper returns. *See, e.g.* George Guttman, *News Analysis – Deja Vu – IRS Unlikely to Hit Electronic Filing Goals*, 84 STATE TAX NOTES 200, 200 (1999) (a target rate of 80% electronic filings was set to be achieved by 2007; currently, only 8% of filings are undertaken electronically). *See also generally supra* notes 174-75.

[177] *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at 128.

[178] *See id.* at 49, 135. *See also* GRAETZ, THE DECLINE (AND FALL?) OF THE INCOME TAX, *supra* note 4, at 222 ("More than eighty years ago when this nation adopted the Sixteenth Amendment, achieving fairness in the distribution of the tax burden was the essential reason for taxing income and for taxing it at progressive rates."); *see generally* Erik M. Jensen, *Unapportioned Direct-Consumption Taxes and The Sixteenth Amendment*, 84 Tax NOTES 1089 (1999).

[179] *See generally* FEDERAL INCOME TAXATION, *supra* note 1, at 4.

fairness or to reward or provide incentives for particular behavior; (3) the lines that must be drawn to measure accurately a taxpayer's personal income;[180] and (4) the imposition of tax on complex financial transactions (e.g., sales of stock and corporate-shareholder transactions.)

The first of these elements, the taxpayer's annual self-assessment of tax based upon annual reporting of income and deductions, results from a system that was designed in 1913. Based on that model, the income tax has become substantially more complicated. The current system is encumbered with multiple phase-outs for such items as personal exemptions, itemized deductions, and various educational tax credits.[181] It also contains complicating features in the computation of taxable income, such as the passive activity loss rules,[182] at-risk rules,[183] and net operating loss carryovers.[184] To the extent record keeping and the interrelationship of years becomes more difficult, audits become more difficult and collection of tax rightfully owing becomes more problematic.

The second element contributing to the inadequacy of the present income tax system is the virtually unending desire to personalize the tax so as to achieve fairness.[185] This desire has resulted in progressive rates,[186] rates depending upon marital status,[187] exemptions for children and other dependents,[188] phase-outs of various deductions,[189] and other benefits as the level of a taxpayer's income increases. Further, the desire to reward or provide incentives for certain behavior by reducing a taxpayer's

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[180] Measurement could involve determining whether an item of receipt constitutes income and whether an expenditure is a nondeductible personal expense or a deductible business expense incurred to earn income.

[181] *See, e.g.* I.R.C. § 63(d) (itemized deductions); § § 151-53 (personal exemptions); §25A (educational tax credits).

[182] *See* I.R.C. § 469.

[183] *See* I.R.C. § 465.

[184] *See* I.R.C. § 172(b)

[185] *See* SLEMROD & BAKIJA, *supra* note 4, at 135.

[186] *See* I.R.C. §§ 1, 11.

[187] *See* I.R.C. § 1.

[188] *See* I.R.C. § 151(c).

[189] *See* I.R.C. § 68; § 25A.

income tax burden has led to tax benefits for charitable contributions,[190] the retention of the personal deduction for home mortgage interest,[191] and various business credits and deductions,[192] again just to name a few.

The income tax system is prone to these personalizing features, in part, because the annual computation of tax required of both businesses and individual taxpayers permits the personalizing features to be accounted as an aggregate for the year during the annual computation. Each feature in and of itself is manageable; however, the combination of features becomes burdensome and complicated, often requiring expensive professional assistance and, at the very least for many taxpayers, computer assistance.

The third element is the line drawing that must be done to determine whether receipts or benefits are income and whether expenses are deductible.[193] Often, these determinations must be done in the context of receipts and expenditures that occupy some middle ground. For example, some expenditures are a mixture of business and personal expenses.[194] Moreover, some expenses are almost purely personal but are reported by taxpayers as deductible business expenses.[195] Importantly, even if the tax were made computationally simple, flat, and unpersonalized, the line drawing inherent in measuring income would leave the tax complex and costly.

The fourth element involves the imposition of tax on purely financial transactions such as sales or exchanges of investment assets. Investment gains from these transactions derived by individual taxpayers are not included in the accounting for national income and gross domestic product although, under a personal income tax system, these gains may increase a taxpayer's

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[190] *See* I.R.C. § 170.

[191] *See* I.R.C. §163 (h)(3).

[192] *See supra* notes 113-15 and accompanying text.

[193] *See* SLEMROD & BAKIJA, *supra* note 4, at 139.

[194] *See, e.g.* I.R.C. § 119 (meals and deductions furnished for convenience of employer may be considered both personal and business).

[195] The deduction for travel and entertainment expenses under I.R.C. §162 represents an area of both potential and historical abuse. FEDERAL INCOME TAXATION, *supra* note 1, at 262-65.

income.[196] Sales of stock, corporate-shareholder transactions such as corporate liquidations and redemptions, and certain partnership-partner transactions are examples of financial transactions that can generate gross income under the current tax system.[197] The issues regarding the preference accorded capital gains,[198] tax-free corporate reorganizations,[199] and like-kind exchanges[200] grow out of this aspect of the personal income tax system.

Critics of the income tax have focused on an alternative base for the collection of revenue, both to avoid the purported economic disincentives to work and save and to achieve more efficiency in the tax assessment process.[201] However, these critics have often conceded that the alternative base may not achieve the fairness, at least in the abstract, that the income tax appears to achieve.[202] This paper emphasizes the importance of an efficient and inexpensive tax collection system and concludes that an income tax that is annual, self-assessed, and imposed directly on the income of individuals can never be made efficient and inexpensive.

VI. ALTERNATIVE SYSTEMS OF TAXATION

A. Alternative Methods of Taxing Consumption

The use of consumption instead of income as a tax base has gained momentum among some tax reformers.[203] Such a system

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[196] Marjorie E. Kornhauser, *The Origins of Capital Gains Taxation: What's Law Got to Do With It?*, 39 SW. L.J. 869, 891 (1985).

[197] *See* I.R.C. § 302 (distributions in redemption of stock); §331 (distributions to shareholders in complete liquidation); § 731 (a) (distributions by a partnership to a partner of cash in excess of the partner's basis in partnership interest); § 741 (sale or exchange of partnership interest).

[198] *See* I.R.C. § 1(h).

[199] *See* I.R.C. § 368.

[200] *See* I.R.C. § 1031.

[201] *See generally* HALL & RABUSHKA, *supra* note 4; Murray Weidenbaum, *The Nunn-Domenici USA Tax: Analysis and Comparisons in* FUNDAMENTAL TAX REFORM, 54 (1996); Gilbert E. Metcalf, *The Role of a Value-Added Tax in Fundamental Tax Reform in* FUNDAMENTAL TAX REFORM, 70 (1996); Laurence J. Kotlikoff, *Saving and Consumption Taxation: The Federal Retail Sales Tax Example,* FUNDAMENTAL TAX REFORM, 160 (1996).

[202] *See* SLEMROD & BAKIJA, *supra* note 4, at 171.

[203] *See supra* note 201.

taxes current consumption, i.e., the quantity of commodities sold to or consumed by an individual. In contrast, an income tax imposes a tax burden on potential consumption, which includes both current consumption and the savings available for future consumption.

Proponents of a consumption tax contend that a change from a graduated rate income tax to a consumption tax will encourage saving and increase the amount of capital stock available for investment, thereby increasing productivity and output.[204] Increased saving will result from a reduced disincentive to save[205] and a shift in the tax burden from high income taxpayers, who tend to have high savings rates, to low income taxpayers, who tend to have low savings rates.[206] As discussed earlier in this paper, the first of these outcomes, although perhaps intuitively likely, is open to substantial question.[207] The second outcome results from a redistribution of the tax burden from the wealthy to the less wealthy, which many are likely to find unacceptable even taking into account the additional savings that may result, at least in the absence of compensating public expenditures benefitting the less wealthy.[208]

The principle alternative methods of imposing a consumption tax are (1) a national retail sales tax; (2) a value-added tax; (3) the Hall-Rabushka flat tax; and (4) a cash-flow or consumed income tax.

1. Retail Sales Tax

A retail sales tax imposes a tax on the purchase of commodities, which could include labor.[209] A general sales tax

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[204] *See* HALL & RABUSHKA, *supra* note 4, at 71; Weidenbaum, *supra* note 201, at *59-62;* Metcalf, *supra* note 201, at 98-100; Kotlikoff, *supra* note 201, at *176-77.*

[205] *See id.*

[206] *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at 171-73 (lower income taxpayers need to consume a larger proportion of their income to live, therefore will have lower savings rates than wealthier taxpayers; thus lower income taxpayers will bear a greater burden for tax under a consumption model).

[207] *See* ROSEN, *supra* note 52, at 390; SLEMROD & BAKIJA, *supra* note 4, at 110 (illustrating where a consumption tax could have a negative impact on saving).

[208] *See supra* notes 68 and 206.

[209] *See* ROSEN, *supra* note 52, at 441.

imposes that tax at a uniform rate.[210] In contrast to a general sales tax, a selective sales tax or excise tax is levied at different rates (including zero) on different commodities.[211] A uniform rate national sales tax, however, is much simpler to administer than a sales tax involving differential rates in that it is easier to collect and easier to police.[212]

The national sales tax under consideration is generally described as an *ad valorum* tax.[213] Sales at stages earlier than the retail level are not subject to the tax.[214] This exemption of non-retail sales avoids the cascading effect of tax imposed at each stage of production[215] and thereby avoids discriminating against non-vertically integrated companies in favor of vertically integrated companies.[216] Imposing the tax on the gross amount of retail sales ensures that all of the component costs of production (i.e., raw materials, labor, etc.) as well as returns on capital (i.e., interest, rent, and profits) will be in the tax base because they will be reflected in the price of the product.

As discussed earlier, a single rate national sales tax does not guarantee the elimination of excess burdens.[217] Because different

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[210] *Id.*

[211] *Id.* at 442 (selective sales tax also referred to as "an excise tax, or a differential commodity tax).

[213] *See* Laurence J. Kotlikoff, *Saving and Consumption Taxation: The Federal Retail Sales Tax Example, in* FRONTIERS OF TAX REFORM 160, 170, (Michael J. Boskin ed. 1996) (describing the general features of the retail sales tax); SLEMROD & BAKIJA, *supra* note 4, at 196 (providing an overview of the functioning of the retail sales tax).

[213] *See* ROSEN, *supra* note 52, at 442 (an ad valorem tax is calculated based on the percentage of the purchase price); Kotlikoff, *supra* note 212, at 176 (describing a tax based on a percentage of purchase price).

[214] *See* Malcolm Gillis, Peter Mieskowski, & George R. Zodrow, *Indirect Consumption Taxes: Common Issues and Differences Among Alternative Approaches*, 51 TAX L. REV. 725, 731 (1996) (contrasting the retail sales tax, which does not tax business inputs, with the business transfer tax and the value-added tax methods); Alan Schenk, *The Plethora of Consumption Tax Proposals: Putting the Value Tax, Flat Tax, Retail Sales Tax, and USA Tax Into Perspective*, 33 SAN DIEGO L. REV. 1281, 1315 (noting that a feature of the retail sales tax is to refrain from taxing purchases by businesses for resale).

[215] *See* SCHENK, supra note 214, at 1315 (discussing the effect of cascading). *See also* Joseph Isenbergh, *The End of Income Taxation*, 45 TAX L. REV. 283, 332 (1990) (discussing the impact of cascading on consumers); SLEMROD & BAKIJA, *supra* note 4, at 209 (detailing the distorting effect of cascading on consumers).

[216] *Id.*

[217] *See supra*, note 99 and accompanying text.

commodities face different demand structures, a uniform rate does not assure that the marginal excess burden imposed on each commodity will be equal. Consequently, an excess burden may occur.

The conventional argument against a national sales tax is that it would be regressive.[218] The reasoning for this view is that wealthy people consume a smaller portion of their income than less wealthy people. It would follow that a tax based on consumption will be paid by poor people at a disproportionately higher rate relative to income than by wealthy people.[219]

However, this line of reasoning assumes that the current year's income is an accurate reflection of a taxpayer's lifetime income. Further, it is not at all certain that over a lifetime, a poor person pays a disproportionately larger share of her income for consumption expenditures than a wealthy person.[220] In fact, there is reasonably strong evidence that people at all levels of income devote about the same proportion of their income to consumption expenditures.[221] If this is the case, a sales tax is neither regressive nor progressive over a taxpayer's lifetime.

In addition, the conventional view looks only at the legal incidence of the sales tax. It ignores the analysis of the economic incidence of a tax. Although the legal incidence of a sales tax falls on sellers, it appears to fall on consumers immediately through an increase in price. However, a tax on goods is shifted and shared between buyers and sellers of the good, depending upon the elasticities of supply and demand for the good.[222] To the extent the seller bears a portion of the burden, the tax may again be shifted

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[218] *See, e.g.* Stephen Moore, *The Economic and Civil Liberties Case for a National Sales Tax*, *in* FRONTIERS OF TAX REFORM 110, 117 (Michael Boskin ed. 1996).

[219] *See* MOORE, *supra* note 218, at 117 (noting the argument against the retail sales tax based on progressivity and offering different solutions based on rebates and credits); Kotlikoff, *supra* note 212, at 171; Gillis et al., *supra* note 214, at 734 (noting the concerns voiced about the adverse impact on the poor from the administration of a consumption tax).

[220] *See* KOTLIKOFF, *supra* note 218, at 171(arguing for the measurement of progressivity of the retail sales tax of lifetime rather than annual income); SLEMROD & BAKIJA, *supra* note 4, at 219 (noting that consumption taxes such as the retail sales tax and the value added tax imparts a burden to taxpayers in proportion to their lifetime incomes).

[221] *See* ROSEN, *supra* note 52, at 445, citing METCALF, THE LIFETIME INCIDENCE OF STATE AND LOCAL TAXES: MEASURING CHANGES DURING THE 1980'S (National Bureau of Econ. Research Working Paper No. 4252, Jan. 1993).

[222] *See supra*, notes 52-92 and accompanying text.

to factors of production for the good, including owners of capital as well as labor. As a result, the distributional effect of a national sales tax is uncertain.

Detractors of the sales tax suggest that without an army of administrators to monitor its collection and payment to the government, any savings resulting from the surface simplicity of the tax would be outweighed by the loss of tax revenue from cheating.[223] Under the methods of collection of the sales tax currently employed in an economy that uses currency as a significant medium of exchange, loss of revenue through lack of compliance is potentially substantial.

2. *Value-Added Tax*

A value-added tax (VAT) is, in substance, a form of a retail sales tax.[224] Its advantages over a retail sales tax lie in its compliance properties and its built-in protection from evasion.[225] A VAT is collected in stages.[226] Each producer pays a tax on the value added to the product being sold.[227] The tax is implemented by means of a tax imposed at the full rate on the full value of the product when sold at retail.[228] Thus, the price of the product to the consumer includes the tax computed by applying the VAT rate to the tax-exclusive price of the product or service.[229]

Under a credit-style VAT, the retail seller is permitted a credit against the tax that must be remitted upon retail sale of the

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[223] *See* SLEMROD & BAKIJA, *supra* note 4, at 210 (discussing the enormous enforcement challenges inherent in the retail sales tax model); MOORE, *supra* note 212, at 117 (Michael Boskin ed. 1996) (recognizing the evasion argument against the retail sales tax and arguing that states should be held responsible to collect the tax); SCHENK, *supra* note 214, at 1315 (noting the difficulty of enforcement and collection of the retail sales tax and positing that problem of enforcement in the retail sales tax paradigm may be solved with the cooperation of states).

[224] *See* DAVID F. BRADFORD, FUNDAMENTAL ISSUES IN CONSUMPTION TAXATION 7 (1996).

[225] *See* Alan Schenk, *Value Added Tax: Does This Consumption Tax Have a Place in the Federal Tax System?*, 7 VA. TAX REV. 207, 285 (1987).

[226] *See* Alan Schenk, *Radical Tax Reform for the 21st Century: The Role for a Consumption Tax*, 2 CHAP. L. REV. 133, 139 (1999).

[227] *See id.*

[228] *See id.* at 139-140.

[229] *See id.*

product.[230] The credit equals the VAT that the seller paid for raw materials, which was included in the price paid by the seller.[231] In this manner, the retail seller is required only to remit a net tax payment equivalent to the VAT rate times the value which the retail seller added to the product.[232] Thus, a credit style VAT collects a tax at each stage of production through ultimate retail sale, but the aggregate amount of tax collected is no greater than the amount that would be collected as a retail sales tax at the final sale.[233] To the extent the ultimate retail seller fails to pay over the VAT portion of a sale, it will not be entitled to its credit.[234] Only the tax on the retailer's mark-up will be lost.[235]

A subtraction-style VAT is collected at each stage of production, but the tax due at each stage is computed by multiplying the VAT rate by the excess of the gross receipts over deductible expenditures of the payor.[236] The cost of raw materials and capital are deductible in computing value added.[237] In contrast, the cost of labor and returns on capital are not deductible.[238] Facially, a subtraction style VAT resembles the corporate income tax, except that investments are expensed and no deduction is allowed for labor and interest costs.[239]

Both types of VATs may properly be viewed as alternative methods for collecting a retail sales tax and both impose tax on a consumption base.[240] Like a retail sales tax, a VAT can be imposed

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[230] *See* METCALF, *supra* note 201, at 93-94; Schenk, *Radical Tax Reform, supra* note 226, at 139-40.

[231] *Id.*

[232] *See* Schenk, *Radical Tax Reform, supra* note 226, at 139-140.

[233] *See id.*

[234] *See* METCALF, *supra* note 201, at 96.

[235] *Id.*

[236] *See* Schenk, *Radical Tax Reform, supra* note 226, at 94.

[237] *See generally* U.S. DEP'T OF TREASURY, TAX REFORM FOR FAIRNESS, SIMPLICITY, AND ECONOMIC GROWTH, vol. 3 (1984) The cost of capital is only fully deductible in a consumption style VAT, not a Gross Domestic Product (GDP) or Income Type VAT. *Id.* at 5-7.

[238] *See id. See also* METCALF, *supra* note 201, at 92 (value added includes the value of labor and return to capital, so would be included in the tax base).

[239] *See* U.S. DEP'T OF TREASURY, *supra* note 237, at 7-8; SLEMROD & BAKIJA, *supra* note 4, at 197-99.

[240] *See* Schenk, *Value Added Tax, supra* note 225, at 226.

at different rates for different commodities, but a non-uniform rate of taxation increases administrative complexity and the cost of compliance.[241] A progressive rate may introduce potential additional inefficiencies, although this latter point is by no means certain.[242] Because the taxes are incorporated in the price of the product to be paid by the consumer, and the seller is charged with the obligation of paying the tax to the government, the retail sales tax and both styles of VAT impose the legal incidence of the tax on businesses. As discussed earlier, the imposition of the legal incidence of the tax on the seller does not ensure or even indicate that the economic incidence of the tax is borne by the seller.[243] Note that a VAT can also be imposed on an income base.[244]

Transition problems presented by alternative consumption proposals vary significantly. An indirect tax such as a VAT or retail sales tax will cause a one-time increase in price levels and, therefore, a one-time devaluation of existing wealth.[245] The transition loss to capital by virtue of its reduced purchasing power may be an appropriate trade-off for the preferential treatment that it would receive in the future.

3. Hall-Rabushka Flat Tax

The Hall-Rabushka flat tax is a consumption tax with collection aspects similar, at least in part, to an income tax.[246] In essence, the Hall-Rabuska flat tax is a subtraction-type VAT with a special allowance as a deduction for compensation for services.[247] The amount paid as compensation for services, however, does not escape the consumption tax base but rather is includable on the special tax return of the taxpayers who receive the

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[241] *See* id. at 237.

[242] *See* U.S. DEP'T OF TREASURY, *supra* note 237, at 90-110 9(discussing the impact of different ways of making the VAT more progressive).

[243] *See supra*, notes 52-92 and accompanying text.

[244] That possibility will be discussed *infra* at part VI.B.

[245] *See* David F. Bradford, *Consumption Taxes: Some Fundamental Transition Issues*, *in* FRONTIERS OF TAX REFORM 123, 135 (Michael Boskin ed. 1996); Schenk, *Value Added Tax*, *supra* note 225, at 237; Gillis et al., *supra* note 214, at 751-752.

[246] *See* SLEMROD & BAKIJA, *supra* note 4, at 8.

[247] *See* HALL & RABUSHKA, *supra* note 4, at 55.

compensation.[248] Thus, in theory, the economic incidence of the Hall-Rabushka flat tax is the same as that of a VAT, even though the legal incidence of the portion attributable to compensation for personal services is imposed upon the individual service providers.[249]

The shift in the legal incidence of the Hall-Rabushka flat tax and the place where personal services tax is collected, permits the taxation of personal services income to be imposed at a different rate and on less than all of the taxpayer's personal service income.[250] Thus, the Hall-Rabushka flat tax modification of a subtraction-type VAT permits flexibility insofar as the tax attributable to personal service income can be made progressive and can include a low income allowance, permitting some low paid workers to escape that portion of the tax altogether.[251]

Because the precise form of the Hall-Rabushka flat tax proposal does not take advantage of the complete flexibility to impose the tax on personal services in a progressive manner, as that term is normally used by income tax advocates,[252] it leaves the economic incidence of the VAT largely unchanged.[253] However, it could be modified (undoubtedly without the consent of Messrs. Hall and Rabushka) to be more progressive.

Transition issues under the Hall-Rabushka Flat Tax are similar to those under the indirect consumption taxes discussed previously.

4. Cash Flow Consumed Income Tax

The last type of consumption tax imposes legal incidence on individuals instead of businesses. The cash flow tax is computed and collected at the individual level.[254] The taxpayer includes all

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[248] *See id.*

[249] *See id.* at 60.

[250] *See id.* at 59.

[251] *See id.*

[252] *See, e.g.* SCHENK, *supra* note 214, at 1299, 1313 (comparing the VAT and the Hall & Rabushka flat tax).

[253] *See* HALL & RABUSHKA, *supra* note 4, at 81 (discussing variants on the flat tax and its effects on rates).

[254] *See generally* ANDREWS, *supra* note 1, at 1120.

income, both from labor as well as from capital, and subtracts savings.[255] The amount remaining after the subtraction constitutes the taxpayer's consumption and is subject to the tax.[256]

Administratively, this type of consumption tax is problematic since a method must be devised to establish the amount of a taxpayer's savings. The likely solution would be to designate qualified accounts at savings banks, security brokerage houses, and other types of financial institutions to track these savings.[257] As long as capital gains were retained in those accounts, no tax would be imposed. Withdrawals from these accounts that are not offset by contributions to the same or other qualified accounts, however, would be added to the tax base and subject to tax.

Under the cash flow tax, the taxation of consumption can be personalized. Thus, the rates can be made progressive, the tax can contain various exemptions and deductions for special circumstances, and the tax system is as susceptible to built-in tax incentives, known as tax expenditures, as the current tax system.[258] For that reason, the cash flow tax is likely to encounter the same criticisms of expensive administration and inefficiency as the current income tax.

Transition issues in moving to a consumed income tax are quite significant. A consumed income tax would be very dependent upon an honest accounting for wealth existing at the time of its adoption. Otherwise, the tax would be easily avoidable through post-enactment savings derived from unreported but existing wealth. Accounting for that existing wealth as of the time of adoption to ensure that it does not appear as new savings, as well as accounting for the basis of assets that are currently owned by individuals, present great transition problems.

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[255] *Id.* at 1149.

[256] *Id.*

[257] *See, e.g.* Robert A. O'Neill & Paul H. Lutz, *Unlimited Savings Allowance (USA) Tax System*, 66 TAXNOTES 1482, 1522 (1995) (Describing the type of form which would be used to keep track of savings and investments).

[258] *See, e.g.* DOMENICI, *supra* note 3, at 296.

B. Reconciling National Income Accounting with the Consumption Tax and Income Tax

1. Relationship of Taxation to the Flow of Goods and Services

Because each of the various consumption tax proposals chooses a different place in the production and sale of goods cycle to impose the tax, the best way to understand the consumption tax reform proposals is to understand first the flow of goods and services and the factors of production. The selection of the point of imposition of the tax determines how the base is calculated, the proportionality of the tax, and how the tax can be collected, but it does not itself determine who ultimately bears the burden of the tax, *i.e.* its economic incidence (assuming equivalent tax rates are employed).

By definition, national income (Y) and domestic product are equal. That is because domestic product represents the firms' response to aggregate demand for goods and services, whether arising from consumers (C), investors (I), the government (G) or net exports, *i.e.* exports (X) minus imports (IM) or (X - IM).[259] Production equal to the domestic product satisfies that aggregate demand.[260] The amount of the domestic product, when paid out to the factors of production and as profits, represents income to those recipients.[261] Thus, when wages, interests, rents, and profits in the economy are combined to compute national income, that amount equals the value of the output in the economy, which in turn, equals the aggregate demand for goods and services.[262]

The income tax for the most part is imposed on national income, i.e., wages, interest, rents and profits. If one desired to impose a tax on consumption alone, however, one could tax national income in the hands of its recipients, excluding the amount that recipients save (Y – S). The cash flow consumed

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[259] *See* ABEL & BERNANKE, *supra* note 52, at 31-32.

[260] *See id.* at 31, 309.

[261] *See id.* at 31-32.

[262] *See id.*

income tax and its recent legislative reflection, the "Nunn-Domenici USA Tax", employ this approach.[263]

Alternatively, one could tax income or consumption by focusing on aggregate demand. Specifically, one could impose a tax on private consumption by taxing aggregate demand less investment and government spending.[264] The tax would be incorporated into the prices of goods that were consumed. The retail sales tax (which excludes business purchases) as well as the credit and subtraction method consumption VATs employ this latter approach.

The foregoing method can be used to impose an income tax as well. One could tax income by imposing an *ad valorem* tax on aggregate demand, including consumer demand, investment demand, government purchases, and net exports. This tax could be imposed statutorily on the purchasers of domestic product[265] or, as with regard to most sales taxes and value-added taxes, on the sellers of those products, but collected, at least in part, from purchasers. Under this latter method, the tax would be incorporated into the prices of the goods and services.

The primary difference between an income VAT and a consumption VAT lies in the treatment of investment expenditures. In contrast to a consumption VAT, no deduction or credit would be permitted under an income VAT with regard to the business firm's purchase of investment goods such as plant and equipment.[266] In lieu of complete expensing or credit, a depreciation allowance, in the case of a subtraction method VAT, or amortization of the credit resulting from the purchase of investment goods, in the case of a credit VAT, would be allowed.[267] In either event, net investment would be part of the tax base of the business firm, thereby causing the VAT to be an income VAT

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[263] The Nunn-Domenici USA Tax employs this approach in part but combines it with a separate business tax component in the form of a subtraction style VAT. *See* S. 722, 104th Cong., 1st Sess. (1995), *supra* note 3. For a succinct description of the proposal, see Weidenbaum, *supra* note 201, at 54.

[264] This tax could be imposed with or without net exports and with or without government purchases.

[265] *See supra* notes 70-92 and accompanying text.

[266] *See* U.S. DEP'T OF TREASURY, *supra* note 237,5-7.

[267] *See id.*

because it imposes a tax on income, not just consumption[268] The economic incidence of the portion of the tax attributable to inclusion of investment expenditures in the tax base would fall on the owners of the factors of production, including capital and labor, and on consumers,[269] with the exact sharing ratios dependent upon elasticities. Moreover, it should be noted that since both private and government saving must be equal to investment, disallowing a deduction or credit for investment spending under a VAT is the counterpart to taxing saving under a personal income tax.[270] The legal incidence, however, would be different.

Finally, an income VAT, coupled with a tax on personal service income to the service provider and a credit to the employer to achieve progressivity, could be modified into a personal income tax by adding a separate tax on gains from sales of investment property, i.e., capital gain. An income VAT and separate taxation of capital gain, however, do not lend themselves to automatic point-of-sale collection.[271]

2. *Personal Income Tax and the flow of Goods and Services*

In contrast to the manner of taxing national income described above, the income tax system currently in force actually imposes a tax on a broader base than national income.[272] The current income tax adopts a definition of income different from national income. Under the current income tax system, personal income is determined at the taxpayer level, and is generally "defined as the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in question."[273] This definition, sometimes referred to as the "Haig-Simons" definition of income, after the economist Robert Haig, who

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[268] *See id.*

[269] *See id.* at 6-7.

[270] *See, e.g.* HALL & RABUSHKA, *supra* note 4, at 71.

[271] *See* ROSEN, *supra* note 52, at 447.

[272] *See* I.R.C. § 61(setting forth what is includable as taxable income).

[273] HENRY C. SIMONS, PERSONAL INCOME TAXATION 50 (1938).

articulated the definition first in 1921,[274] and Henry Simons, who modified it in 1938,[275] is the most widely accepted definition of income and is used by many economists and lawyers as the basis for testing the equity of the personal income tax.[276]

Like a tax on national income, the personal income tax base includes income from wages, interest, rent, and profits when realized.[277] It also includes, however, some transfers between individuals, such as found property, which may or may not be deductible by the person who lost the property.[278] More importantly, the current income tax system taxes appreciation in a taxpayer's property.[279] This appreciation can be either appreciation in financial assets or appreciation in other investment property.[280] Appreciation in financial assets essentially represents the present discounted value of the flow of future expected income from the property or business entity the ownership of which is evidenced by the financial asset. Appreciation can take place either because the flow of income from the entity has increased, the discount factor has decreased, or the price-earnings multiple has increased because of changes in speculative interest in the financial asset. Regardless of the reason for the appreciation, the current income tax imposes a tax on that appreciation, generally at more favorable capital gains rates, when the appreciation has been "realized."[281] This is true even though the future earnings, when realized, would themselves be subject to income tax.[282]

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[274] ROBERT HAIG, THE CONCEPT OF INCOME (1921)

[275] *See supra* note 272.

[276] *See* FEDERAL INCOME TAXATION, *supra* note 1, at 107; ROSEN, *supra* note 52, at 339-342.

[277] *See* I.R.C. §61.

[278] *See* Treas. Reg. §1.6-14(a) and *Cesarini v. United States*, 296 F.Supp., 3 (N.D. Ohio, 1969) *affirmed* 428 F.2d 812 (found money included in income); I.R.C. § 165(h)(2) ("treatment of casualty gains and losses:" "net casualty loss allowed only to the extent it exceeds 10 percent of adjusted gross income").

[279] *See, e.g.* I.R.C. § 1001.

[280] *See* I.R.C. § 1221.

[281] *See* I.R.C. § 1(h)

[282] Sometimes, however, a tax on appreciation will offset taxes on future earnings. An example is the effect of adjustments under I.R.C. §§ 734(b) and 743(b) when a § 754 election is in effect for a partnership. Sometimes, on the other hand, no adjustment is made. For example, the sale of corporate stock for a profit does not give rise to an upward adjustment in the basis of the corporation's assets because there is a separate basis in the stock and a

The appropriateness of taxing this appreciation in financial assets represents one aspect of the long-running debate regarding whether capital gains should be taxed preferentially.[283] In any event, if an income tax were enacted providing for collection by imposing a tax on purchases, a separate capital gains tax would be required in order to match the tax base of the current personal income tax.

3. Treatment of Capital Gain

In contrast to the Haig-Simons definition of personal income discussed above,[284] the definition of national income from a macroeconomic viewpoint stems from the definition of gross domestic product.[285] It is the sum of the incomes that all individuals in the economy earned in the form of wages, interest, rents, and profits.[286] The major difference in the two definitions is the treatment of gains from financial transactions such as from the sale of investment assets. Thus, an individual's gain from the sale of stock in a corporation would be includable in income under the Haig-Simons definition of income. Such a gain, however, is not included in the macroeconomic concept of national income. As a result, the current income tax system, which imposes a tax on capital gains, captures a broader base than the nation's national income when viewed without regard to special exemptions and deductions unrelated to the measurement of income

An indirect tax such as a income VAT would tax gross domestic product and, therefore, income in the national income context, but would not tax an individual's personal income as defined under Haig-Simons. The income VAT, therefore, excludes from the tax base appreciation in financial assets like stocks and bonds.[287] As a result, this reliance on an indirect tax, even an

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separate basis in the assets. *See generally* I.R.C § § 301, 302, 311.

[283] *See, e.g.* Martin A. Sullivan, *Keeping Score on Class Warfare: Joint Committee on Taxation and Treasury are Miles Apart*, 84 TAX NOTES 963, 963-65 (1999) (describing how preferential capital gains rates are viewed as tax favors to the wealthy).

[284] *See supra* notes 271-81 and accompanying text.

[285] *See* ABEL & BERNANKE, *supra* note 52, at 31-32.

[286] *Id.*

[287] *See* U.S. DEP'T OF TREASURY, *supra* note 237,5-7.

income tax collected solely at the business level, may be subject to the charge from the proponents of the current income tax system that it fails to fully include income from capital. In particular, an income tax collected at the business level does not include appreciation of capital in the tax base even if realized, such as, realized gain on stock market transactions.

This exclusion for the appreciation in financial assets represents a conceptual difference between income tax based or national accounting and the personal income tax. Indeed, it is one of the significant disputes that Hall and Rabushka have with the current income tax system.[288] Like the personal income tax, however, the VAT does not allow a deduction to the purchaser for the cost of a financial asset.[289]

A direct consumption tax such as the cash flow consumed income tax handles appreciation in financial assets in a slightly different manner. It imposes a tax on the gain on financial assets, but only when consumed. It does, however allow a deduction for the cost of purchasing the assets and, therefore, excludes the purchase price from the tax base.

These two approaches are the same on a present value basis under certain simplifying assumptions. In both cases, the tax base consists of wages and business profits.[290] While these two forms of consumption tax may be largely equivalent at the aggregate level, they may not be so at the individual level.[291] The tax burdens on particular individuals will be dependent upon the taxpayers' tastes for, and good fortune with respect to, financial assets.[292]

Adoption of an income VAT would resolve some of the preferential treatment of capital by causing the incidence of the tax to fall in part on capital.[293] Under an income VAT, income is taxed at the business level, and there is no allowable deduction for return to capital in the form of either interest or dividends or for

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[288] HALL & RABUSHKA, *supra* note 4, at 117.

[289] *See* U.S. DEP'T OF TREASURY, *supra* note 237,5-7.

[290] *See* Schenk, *Value Added Tax*, *supra* note 225, at 237.

[291] *Id.* at 224.

[292] *Id.* at 255.

[293] *See* U.S. DEP'T OF TREASURY, *supra* note 237,5-7.

capital expenditures.[294] This treatment is in contrast to the deduction that would be allowed for capital expenditures under a subtraction style consumption VAT.[295] Investment and, therefore, savings would be subjected to this additional tax.[296]

One would suspect that the taxation of returns to capital would be reflected in the amount capital users would be willing to pay for that capital. Thus, interest and dividend rates would reflect the non-deductibility of payments for the use of capital.[297] To the extent that appreciation of equity or debt ownership goes untaxed even if realized, there is a justification that these gains at the personal level represent merely an anticipation of future earnings at the business level that have not yet occurred and, therefore, do not actually represent income from a macroeconomic perspective.[298] In addition, to the extent that the owner of appreciated assets sells those assets to a purchaser, the purchaser does not get a deduction or amortizable basis for the purchase price,[299] so none of the purchase price can be used to produce an immediate tax-reducing benefit.[300] This aspect of taxation under the current system oftentimes represents a double taxation of income from capital or at least an acceleration of the taxation on that income. As discussed above[301] with regard to income that is earned by a C corporation or from the sale of stock of such a corporation,[302] the incidence of such a tax resulting purely from operating in the corporate form is uncertain.

It should be noted, however, that even under the current income tax structure, not all capital gains are taxed. In order to be

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[294] *See id.*

[295] *See id.*

[296] *See id.*

[297] Taxation on return to capital may be viewed as an additional "expense" of doing business, and thus would be reflected in the market price. *See* ROSEN, *supra* note 52, at 446-48.

[298] *See* ABEL & BERNANKE, *supra* note 52, at 31-32 9(income defined from a macroeconomic perspective).

[299] *See* U.S. DEP'T OF TREASURY, *supra* note 237,6-7.

[300] *Id.*

[301] *See supra* notes 297-301 and accompanying text. *See also* SLEMROD & BAKIJA, *supra* note 4, at 66-67.

[302] There is no corporate tax counterpart to a § 754 election and resultant basis adjustments under §§ 734(b) and 743(b) to offset future income at the entity level.

subjected to tax, the gain must be realized, requiring a sale or other taxable disposition of the asset.[303] A mere appreciation in value or exchange in a non-taxable transaction does not trigger the tax. Moreover, under current law, when the owner of appreciated property dies, a beneficiary who receives the property is entitled to a date of death stepped-up basis in the property.[304] In that manner, the appreciation in the property owned by a decedent at his death completely escapes income taxation under the current law.[305] Finally, capital gains, interest, and dividends realized in a qualified retirement account, including a Section 401(k) plan, Keogh plan, and individual retirement account (IRA), are not subject to tax until actually paid to the beneficiary.[306]

VII. PROPOSAL: ELECTRONIC POINT-OF-SALE TAXATION

A. Point-of-Sale Taxation: In General

This article advocates point-of-sale taxation because technological developments in electronic transfers will make such taxation inexpensive and largely leakproof. To this end, the article proposes that the current system of income tax be replaced by a single rate credit type VAT. A single rate retail sales tax represents a second choice. Such a tax system would not be personalized. As such, burden sharing modifications, if desirable, would be made on the expenditure side or by offsetting other taxes such as social security taxes.

B. Method of Collection

A VAT, as well as a retail sales tax, can be inexpensive, accurate and virtually leak-proof in an economy in which money transfers take place electronically. To illustrate this point, assume a retail purchase transaction using a debit card under a retail sales

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[303] *See* I.R.C. § 1001(b).

[304] *See* I.R.C. § 1014.

[305] *Id.* (appreciation in assets at death go untaxed due to the stepped up basis the beneficiary receives in those assets).

[306] *See* I.R.C. § 408 (e)(1).

tax. When the customer' s debit card is swept, the retail merchant in effect gains access to the customer's bank account. The appropriate amount, including sales tax, is automatically withdrawn from the customer's account. The clearing bank which handles the transaction electronically would then make an automatic entry, debiting the customer's account for the purchase price plus the sales tax, crediting the merchant's account for the purchase price, and crediting the government's tax collection account for the sales tax. All of these operations would be programmed and be part of the clearing bank's normal operations.

A credit card transaction would operate in much the same way from the consumer's and the merchant's point of view. The only difference would be that the clearing bank would charge the customer's credit account for that amount, thereby establishing a lending transaction, rather than make an immediate withdrawal from the customer's account. The customer's account would be charged with both the purchase price and the appropriate sales tax. As in the debit transaction, the sales tax would be immediately credited to the federal government's tax collection account. In that manner, the tax collection would be automatic.

A credit type VAT would operate in much the same manner. The consumer would observe no difference from a sales tax. The seller, however, would be entitled to a credit on the VAT previously paid. Records of the seller's allowable credit would have been kept by virtue of the financial institution's reporting of the VAT paid on the seller's initial purchase.

A numerical example will illustrate the mechanics of the tax collection. A retail purchase made by credit card would automatically include the sales tax, say 20%. When the credit or debit card is used for the purchase, an amount equal to 120% of the original purchase price of the item can be subtracted from the debit cardholder's account or charged to the credit cardholder's account. At that time, the 20% portion of the charge can be credited immediately to a tax collection account of the government at the financial institution conducting the electronic bookkeeping. In the case of a VAT, the charge would be bookmarked to identify the purchaser for later credit. The account can be swept either immediately or at the end of each day to a federal reserve account. The procedure would be exactly the same, regardless of whether a

debit card or a credit card was used. In both cases, the tax assessed at the point-of-sale would be immediately charged to the purchaser and credited to the government's account.

The essential difference between a VAT and a retail sales tax in terms of mechanics of collection is that under a retail sales tax, the automatic payment method described above would be the end of the process. In contrast, under a VAT, the seller would have to be given credit separately for the VAT it paid to its suppliers of raw materials. As illustrated above, the credit process would involve an additional step to complete the tax collection process. But, as discussed earlier, it would reduce the risks of evasion because the failure to collect the tax at the point of the retail sale would result in forfeiture of the credit and therefore involve a smaller loss of revenue than would be the loss under a retail sales tax.[307] It would also avoid the evasion of tax that could result from a buyer mischaracterizing a purchase as a business purchase, upon which no sales tax is due, instead of as a consumption purchase. Under a VAT, the purchaser would be required to make that mischaracterization to the government in claiming its credit, thereby making the claim easier for the government to review and verify.

It is anticipated that most retail transactions would be undertaken with either a credit card or a debit card. In some cases, however, the customer may desire a more de-personalized method of payment. For example, a taxpayer may desire confidentiality with regard to her purchases. This confidentiality can be achieved by allowing the customer to purchase a Stored Value Card. Furthermore, to prevent the substitution of these Stored Value Cards for currency, which could be used to avoid the sales tax, the holder's personal identification attribute,[308] such as, currently a PIN and later a thumb print or retinal image, would be required to transfer funds from the unnamed account accessed by the card.

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[307] *See supra* notes 98-100 and accompanying text.

[308] Currently, a personal identification number (PIN) is used. However, one can imagine that a thumb print or retinal image may be substituted as soon as technology allows. *See, e.g.* Sifers, *supra* note 9, at 714, 724-25 (describing security measures for smart cards).

In addition, cash cards could be used for small incidental purchases, such as to satisfy a parking meter. Cash cards would be printed with magnetic strips like Washington Metro fare cards.[309] They would be subject to a sales tax when purchased. For example, assuming a sales tax of 20%, the customer could purchase a $100 bearer cash card by having $120 debited to the customer's account. The customer would only have the actual amount of the purchase subtracted from the balance on the card. Correspondingly, the merchant would keep the entire proceeds of the sale, because the government had already received its sales tax when the customer purchased the cash card.

The key to enjoying the speed and convenience of stored value and cash cards without facilitating the easy avoidance of tax is to ensure that the cards themselves cannot become a medium of exchange. This can be accomplished by personalizing the cards to make them usable by only the purchaser and by preventing transfer of the value embedded in the card to another card.

This system is also adaptable to an economy in which some transactions still take place using cash. In those transactions, the merchant would be required to record the transaction in the same manner as a debit or credit card transaction, but would direct the payment of tax electronically from its own funds. The merchant would have already collected from the customer a sufficient amount of cash to pay the tax. This payment of tax could occur automatically by the merchant electronically reporting the sale as a cash transaction. Tax collection on cash transactions, accordingly, would be heavily dependent upon compliance by the merchant. As cash payments are replaced in the economy by electronic payments, however, compliance issues would decline.

This article advocates a credit style VAT over a retail sales tax because the VAT collects tax at all stages of production and is therefore less easily evaded. In other respects, however, a retail sales tax lends itself to automatic point-of-sale implementation as

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[309] For example, in Washington, D.C., metro riders purchase debit fare cards and put a certain amount of cash on the card. The rider inserts the card upon entry into the station, and then reinserts the card upon departure. The amount debited is based upon the distance traveled.

well as a VAT. Disregarding this one point, arguments made in favor of a VAT should apply equally to a retail sales tax.

C. Estimated Cost of System

The cost of a credit card transaction now ranges, generally, between 2 and 3 percent of the amount of the transaction, depending upon the value of the transaction and the type of business.[310] Two percent of the $750 billion revenue collected[311] equals $15 billion. To this amount should be added the costs of ensuring compliance and auditing the application of VAT credits. If the full staff of the Service were employed performing these functions, a rather unlikely prospect, the additional cost would not exceed $5 billion.[312] The aggregate cost of $20 billion represents approximately 2.67% of the revenue collected.

This cost, a dead-weight loss to be sure, compares very favorably to the cost of revenue raising under the current income tax system of 10 percent as estimated by Slemrod,[313] based upon an overall cost of $75 billion, and extremely favorably to a cost of 30%, based upon Payne's analysis of the ADL data.[314] Moreover, as electronic funds transfer technology develops, the cost of this system is likely to decline. Thus, it is likely that the proposal will reduce revenue collection costs substantially, principally by eliminating much of the taxpayer compliance and tax planning costs incurred under the current tax system.

D. Possible Modification of Point-of-Sale Taxation to Personalize Some Aspects of the Tax

If some personalizing of the tax were desired, however, the single rate credit style VAT or retail sales tax could be coupled

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[310] *See* SOLOMON, *supra* note 5, at 56.

[311] This amount is based upon Slemrod's assertion that his estimate of $75 billion for administration costs equals approximately 10% of the revenue collected. *See* Slemrod, *Which is the Simplest Tax System*, *supra* note 149, at 368.

[312] *See id.* at 64 (I.R.S. budget devoted to income tax is $5 billion).

[313] *See id.* at 368; *see also supra*, notes 149-77 and accompanying text. This is based upon an overall cost of $75 billion.

[314] *See supra*, notes 149-77 and accompanying text.

with shifting of the legal incidence of the portion of the tax on personal services to workers. This point can best be illustrated by assuming a credit type VAT system with the exception that wages are subject to the VAT. A business paying wages would be entitled to a credit for the VAT on those wages against the VAT collected upon sale of its products. No separate withholding, however, would have to be made with regard to wages. Instead, only an accounting of previously credited taxes paid as a VAT by the business would be required. The taxes paid by the business firm would become the taxes paid on behalf of the employee and would be credited to the employee's account.

The employee would compute a tax on her wage income at a flat rate, for which the VAT collected from her employer would be available as a refundable credit against any wage income tax liability. In concept, the VAT collected with regard to wages would serve as tax withheld on her wage income. Under a system of electronic payments, the VAT amount with respect to wages would be credited, automatically and electronically, to a tax payment from the employee on wages through a withholding account for the individual employee. As a result, when the employee reports her income, she will also report the VAT credited to her account by the business firm that paid the compensation. If the VAT rate charged to the employer and the income tax rate assessed on the employee were the same, no additional payments would be required. If the VAT charged to the employer exceeded the employees wage income tax liability, the employee would be entitled to a refund, and if the wage income tax liability exceeded the VAT, additional tax would be due from the employee.

For example, assume a VAT or retail sales tax of 20%. If the company that has collected the tax pays wages in the amount of $100, that $100 wage income could be made taxable to the employee. The employee, however, would be entitled to a refundable credit equal to the VAT or sales tax that had been paid by the employer with regard to the employee's wages. Conceptually, this amount can be viewed as the amount collected by the employer from its customer with respect to that $100. That amount, $20, represents the VAT on the portion of the employer's sale price attributable to the employee's wage. Thus, if the employee's income from personal services was less than the

applicable low income allowance or zero tax amount, no additional tax would be due and, depending upon the rate structure, some of the tax credit could be refunded to the employee. On the other hand, if the employee's wage income was high and the applicable tax rate on such income exceeded 20%, the employee would still have additional tax liability after taking into account the $20 credit. (It should be noted that the wage earner's tax could be computed with or without a gross-up of the $20; the choice would simply reflect the desired effective rate of the tax on the employee.) In this manner, by engrafting a wage tax onto the VAT or sales tax, the tax system could be personalized for wage earners even though substantially all of the tax due would have been collected at the point-of-sale by means of a VAT or sales tax.

This system could be implemented in a slightly different way. The wage earner's tax could be enacted as an income tax on wages subject to employer withholding. The employer, in turn, could be allowed a VAT credit for wage taxes withheld. This system would function mechanically, however, in the same manner for the employer as the payment of a VAT on wages. The wage withholding on the personal services income of an employee would generate a credit to the employer company, but a like amount would be subtracted from the employee's wages and automatically paid to the government. If the employee were then taxed on a base measured by wages in a manner similar to a personalized income tax, allowing personal exemptions, a low income allowance, and graduated rates, then the withholding with respect to the employee's wages would serve as an offset to her wage income tax. This amount could be refunded for a low wage employee (figured as an aggregate of all of the employee's wages for the year). A high wage employee would have to pay additional tax if his tax liability exceeded the withheld amount.

Both conceptualizations described above are economically equivalent. They differ only in the technical description and legal incidence of the tax on wage earnings. In the first system, the legal incidence of the tax is on the employer, and the tax paid by the employer is available, computationally, as a refundable credit to the employee. In the second system, the legal incidence of the

tax is on the employee, but the tax is satisfied automatically through withholding by the employer.[315]

The alternatives described above differ from the Hall-Rabushka flat tax structure in that they employ a credit method VAT instead of the subtraction type VAT advocated by Hall and Rabushka. Consequently, they facilitate point-of-sale taxation while still allowing for greater progressivity due to increased flexibility in the taxation of personal services.

Both the single rate credit type VAT or the VAT coupled with the collection of personal service tax from the service provider would be consistent with the objectives discussed in the article, because under both systems, collection of and accounting for the tax would take place solely or substantially at the point of payment, whether for sale of goods or non-employee compensation for services. The modification with regard to the personal services of employees, of course, would personalize the tax somewhat, but it would also add a corresponding layer of administration and attendant costs because it could not be achieved automatically. The trade-off between cost control and personalizing the tax is a fundamental issue that must be addressed in evaluating taxation at point-of-sale and is discussed in more detail in Section F of this part.

As a third alternative employing point-of-sale taxation, an income tax VAT could be adopted. While not advocated in this paper, it would nevertheless be much less expensive to administer and therefore preferable to the current personal income tax. Both the income tax VAT and the subtraction type consumption VAT depend upon annual accounting, in contrast to the credit type VAT, which is transactional. In addition, a credit type VAT is to some degree self policing. Each purchaser has an incentive to see that his immediate seller reports the transaction and pays the VAT in order that the purchaser can receive credit for the VAT paid. Principally for these reasons, the income VAT and the subtraction type VAT are inferior to the credit type VAT in a system that involves point-of-sale assessment and collection of the tax.

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[315] The reader should recognize the equivalence by reference to the previously discussed gas station hypothetical. *See supra*, notes 54-67 and accompanying text.

E. Special Circumstances

The system described above appears simple, straightforward, secure, and relatively inexpensive to administer for everyday sales of goods and payment for services. Special circumstances, however, may require some modifications to the general procedures.

1. Used Property

Under the VAT proposal, the sale of used property other than financial assets would be subject to tax. Ordinarily, however, tangible property such as used automobiles and household appliances are unlikely to increase in value, so imposing a tax on the sale of those items would amount to double taxation of the items since a tax was paid when the items were originally purchased by the seller. Thus, under a VAT, a credit would be allowed for tax previously paid on used property that is subsequently re-sold. The credit, which would be non-refundable, would usually obviate the need for collecting an additional sales tax. Under a credit style VAT, the credit would theoretically be automatic; although, as a practical matter, consumers who sell used property would be unlikely to have procedures established to make automatic use of it.

In some circumstances, however, used property appreciates. An example of appreciating property would be artwork. In that case, in order to avoid double taxation or cascading of tax, a credit would be allowed for tax previously paid by the seller, which would offset some but not all of the VAT due upon the subsequent sale.

Collection of the tax on the sale of used property would not be as easy as collection from a taxpayer engaged in the business of retail selling. In the case of the VAT as applied to retail sellers and intermediate goods producers, electronic transactions would be the norm, and the mechanism for collecting the tax would be automatic and inexpensive. In the case of the casual seller, on the other hand, a payment of any substantial amount would eventually also be electronic, but the automatic imposition of a sales tax on the gross amount would not permit the subtraction of the credit. It may be that record keeping of the credit would be required with

the justification that casual sales of property are not commonplace occurrences. Alternatively, the mechanics of the process can be solved for certain kinds of property. For example, property such as automobiles could be subjected to federal tax upon registration in the same manner that they are currently subjected to state sales tax.

Finally, the availability of the credit may need to be sacrificed in order to achieve a simpler system. Arguably, in the interests of simplification, casual resales should not be subjected to tax. The benefits from simplification would have to be weighed against the possibility of complete avoidance of the VAT (presumably, however, only on value added by the immediate seller) by retail sellers who sell indirectly to customers through intermediaries acting in the guise of a purchaser and casual seller. Accordingly, the proposal made in this paper would be implemented best by seeking to tax resales and allowing a credit for previous tax paid, the records for which should be available electronically. Alternatively, the extra burden of cascading (VAT without credit for tax previously paid) may have to be endured by the casual reseller.

2. *Personal Residences*

The VAT proposal, similar to the national retail sales tax that has been proposed by Congressmen Schaefer (R-Colo) and Tauzin (R-La) (NST Proposal,)[316] could impose a tax on the purchaser of a primary residence, but allow the purchaser to elect to pay the tax over thirty years, with interest. This treatment is in contrast to the purchase of other residences used for consumption, under the NST Proposal, for which sales tax would be due upon purchase, but which could be financed privately.[317] In the event the election to

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[316] The National Retail Sales Tax Act of 1996 H.R. 3039, 104th Cong. (1996). The NST proposal is explored in great detail in DAVID R. BURTON & DAN R. MASTROMARCO, EMANCIPATING AMERICA FROM THE INCOME TAX – HOW THE NATIONAL SALES TAX WOULD WORK (Cato Institute Policy Analysis No. 272, 1997) ("Burton & Mastromarco No. 1"). *See also* David R. Burton & Dan R. Mastromarco, *The National Sales Tax: Moving Beyond the Idea*, 71 TAX NOTES 1237, 1244 (1996) ("Burton & Mastromarco No. 2"). The authors provide a specific methodology regarding how the NST would operate in practice. The discussion contained in this section of the article advocates their suggestion of how the NST would be implemented.

[317] BURTON & MASTROMARCO No. 1, *supra* note 316, at 17-18.

defer payment of the tax is made with respect to the primary residence, the full amount would become due upon resale of the home.[318] Consistent with an attempt to avoid cascading, a purchaser of the home should be permitted a credit for the tax previously paid by the seller.[319] The transaction would be recorded in county land records, so verification of the allowable credit should not be difficult.[320]

In contrast to the treatment of a first time purchase of a home, the retail sales tax proposal would allow a present homeowner who purchases a replacement home to apply the amount of tax previously paid on her first house as a credit against the tax due on her second house.[321] Consistency would seem to indicate having the credit run with the house rather than with the homeowner.[322] The homeowner would, nevertheless, obtain benefit from the credit because she would be able to sell the house to a subsequent purchaser who would be relieved of the obligation of paying the tax up to the amount of the credit.[323] In that way the credit could be included in the price of the house upon resale.[324]

In any event, because of the size of the transaction and its importance to the participants, as well as the usual participation of financial intermediaries, the automatic electronic payment of the applicable tax would not create an additional administrative burden of any significance.[325]

3. *Mixed-Use Property*

Under a sales tax, great importance is placed on whether the property purchased will be used in business, in which case it will

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[318] *Id.* at 18.

[319] *Id.*

[320] State real property law would continue to apply to real estate transactions.

[321] BURTON & MASTROMARCO No. 1, *supra* note 316, at 18-19.

[322] As described *supra* at note 320, the current real property recording system would be utilized to maintain records fothe credits, similar to other encumbrances on property which are also recorded in land records. *See* BURTON & MASTROMARCO NO. 1, *supra* note 316, at 18-19.

[323] *See id.*

[324] *See id.*

[325] *See* BURTON & MASTROMARCO, No. 2, *supra* note 316, at 1239.

not be subject to the retail sales tax, or whether it will be used for personal consumption, in which case it will be subject to the retail sales tax.[326] A similar issue arises with regard to the purchase of services. The NST proposal suggests a rule of thumb for mixed-use property, requiring that it be used more than 95% for exempt purposes before an exemption is allowed.[327]

The issue is substantially less important under a VAT because the tax is paid at each stage of production. Therefore, no exemption from the tax should be available at any stage.

4. Barter Transactions and the Underground Economy

Barter transactions and the underground economy have been significant problems under the current income tax system.[328] Barter takes place without any cash being transferred and, therefore, readily avoids detection by the revenue authorities. It is particularly troublesome with respect to services because the entire value of the property or services received in exchange for other services, which would ordinarily be included in income, can escape taxation. Similarly, transactions in the underground economy escape taxation because cash is used and, therefore, readily avoids detection.

Similar problems arise and must be dealt with under the proposal to tax transactions at the point-of-sale. The magnitude of the problem, however, is likely to be less, both with respect to barter and the underground economy, particularly under a credit type VAT. First, one would expect that the tax rate imposed on a point-of-sale transaction would be lower than the tax rate imposed under the current income tax. As such, the amount of revenue lost to evasion would be smaller as well.

Second, the loss of revenue is most serious when both sides of the barter transactions are ultimately used for consumption. To the extent that one side of the barter transaction is in the

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[326] *Id.* at 1246.

[327] *Id.*

[328] *See* Burgess J.W. Raby & William L. Raby, *Barter Transactions and the Tax Collector*, 77 TAX NOTES, 949 (1997).

production process, the purchaser of that side will not be entitled to a credit for any value-added tax, so the tax-free acquisition of services will ultimately be taxed upon resale of the finished product. While a similar situation occurs under the income tax in that the business taxpayer is not entitled to a deduction for bartered services, taxpayers may, in effect, obtain a deduction to the extent of their basis in the transferred property, particularly if the transferred property is reflected as goods sold since it is no longer in inventory. Further, under the income tax, there is no assurance that both sides of the barter transaction will be reported consistently, that is, there is no assurance that the failure to report a receipt in income will be offset by the inability of the other side to report a deduction. In contrast, under a VAT, the failure to report the transaction entirely would automatically affect both sides of the exchange in a consistent manner.

Third, to the extent barter transactions require policing, there will be greater availability of resources to do the policing under point-of-sale taxation because of the significant savings from other aspects of the revenue system.[329] Unreported income is currently, and is likely to continue to be, a problem under the income tax system as long as it exists.

Fourth, and most importantly, the replacement of currency transactions with electronic transactions will significantly reduce the loss of tax revenues from the underground economy. To the extent that substantial amounts of money pass, the money must be transferred electronically and tax will be assessed automatically. The remaining loss of revenue should be minor compared with the current income tax system. Although the problem will continue to exist for point-of-sale taxation barter transactions, the importance of these transactions, particularly for taxpayers who purchase for resale at retail, will not be very important. Even under the current income tax system, cash transactions represent a much greater share of the tax avoidance economy than pure barter transactions.

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[329] Since the cost of administering the point-of-sale taxation would be significantly less than the current tax system, *see supra* notes 310-14 and accompanying text, resources would be freed up to address the issue of policing barter transactions.

A caveat, however, is in order here. To the extent that there is an expansion of the use of true "e-money",[330] the accountability for the government of transactions that use "e-money" may become doubtful.[331] Keeping track of these transactions in a manner sufficient to ensure proper collection of a point-of-sale tax would become correspondingly more troublesome. This situation would mirror the difficulties that the central bank money regulators would likely encounter if they sought to monitor the money supply and protect users of "e-money", as well as others affected by it, from potential financial melt-down in the event of a the failure of one or more issuers.[332]

On the other hand, at least for transactions that are not illegal, presumably major issuers of "e-money" will be generally known.[333] Otherwise the "e-money" would not be widely accepted.[334] Thus, the taxing authorities should be able to identify issuers of "e-money" and force compliance, at least from domestic issuers.

It is difficult to deal with and resolve potential tax issues involving "e-money" at this point, however, because "e-money" is currently more hypothetical than real. As a result, it is extremely difficult to foresee with any precision how regulators will make issuers of "e-money" accountable. Once that becomes clearer, there likely will be a means to ensure that "e-money" transactions will be traceable by taxing authorities.

5. *Gifts*

Cash gifts would also have to be made electronically. If gifts were excluded from the transaction tax base, then they would have

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[330] That is, third party promises in the form of internet accounts whose balances have no counterpart in any deposits at a financial institution. *See supra* notes 32-33 and accompanying text.

[331] True e-money could be developed to protect the anonymity of its owner and not be traceable. This anonymous e-money would also make the owner's identity unavailable for the purposes of attaching tax liability. *See supra* notes 34-47 and accompanying text.

[332] *See supra* notes 330-31. If a central bank, such as the Federal Reserve Bank, would be unable to trace the path of e-money, then it follows that tax collection would experience the same difficulties utilizing similar technology.

[333] *See* SOLOMON, *supra* note 5, at 74-75.

[334] *Id.*

to be specially identified at the time of the transfer in order to avoid the automatic assessment. Unlike gifts currently, there would be a trail because of the required identification of the transfer as a gift. That would facilitate wealth transfer taxation, if the amounts are large, and audit, in the event that the government desired verification.

6. Transitional Considerations

There are many transitional issues in replacing the current income tax with consumption tax as the exclusive means of raising revenue. That is the case regardless of whether the consumption tax takes the form of a sales tax, VAT, Hall-Rabushka flat tax, or a cash flow consumed income tax. The automatic and electronic collection of a tax imposed at the time of the transaction should not add to the burdens of transition once the technology has been fully developed and, for most sizeable transactions, would require little more than the modification of software.

F. PERSONALIZING THE TAX

Personalizing the tax involves tailoring a taxpayer's tax liability on the basis of particular attributes of the taxpayer in order to achieve fairness, however that term is defined.[335] If fairness requires that taxation be based upon ability to pay, then taking personal attributes of a taxpayer into account in assessing the tax ensures that distributional fairness can be achieved. The attributes that may be considered include marital status, number of dependants, hardships, such as medical expenses, and the amount of expenditures made in a tax-favored way, such as charitable contributions. Personalizing can also take into account some measure of the taxpayer's "ability to pay," based upon the

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[335] *See* SLEMROD & BAKIJA, *supra* note 4, at 47-83 for a general discussion of the different theoretical conceptions of fairness. Fairness in the personal income tax generally refers to taxation in accordance with ability to pay. Moreover, fairness requires horizontal equity, under which two people with equivalent incomes, after subtracting costs for producing that income, should pay equivalent taxes. *Id.* at 52.

aggregate amount of the taxpayer's income, wealth, or consumption.

1. Choosing the Legal Incidence of the Tax

Imposing the legal incidence of the tax on the individual taxpayer facilitates the ability to personalize the tax so that it takes account of the personal circumstances of the taxpayer. The personal income tax, for example, takes account of the income recipient's marital status, number of children and other dependents, amount of current or potential consumption that the income recipient chooses to forego by giving money to charity, and homeowner status, for which the income recipient may be indebted and paying home mortgage interest. The current income tax system, which takes into account all of these personal attributes and many more in order to achieve fairness, requires that the legal incidence of the tax be placed on the income recipient.[336]

On the other hand, the personalizing of the income tax also adds substantial complexity to the revenue raising system and, therefore, to the inefficiency and dead-weight loss. If one viewed the ability to personalize the tax as more of a weakness than a strength of a tax system, then a tax on transactions such as a consumption tax in the form of a retail sales tax or value added tax could almost entirely avoid the temptation to personalize the tax. A tax that imposes the legal incidence on the income recipient, such as the Hall-Rabushka flat tax or the cash flow consumed income tax, would retain the flexibility, and, therefore, the temptation, to personalize the tax.

Importantly, all attempts to personalize a tax will make it more difficult to collect the tax in a direct manner at the point-of-sale. That is because the personalization of the tax, even if collected automatically at the point-of-sale, will require either an application for refund with supporting information, or a tax return accompanied by additional payment of the tax, and by appropriate evidence of the liability. Personalizing a tax, therefore, will involve administrative costs payable both at the government level and the

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[336] *See* I.R.C. § 1

income recipient level. It is possible that the dead-weight loss resulting from those costs will outweigh the fairness benefits of personalizing the tax. That would be particularly true when many of the desired aspects of the personalization can be done by means of direct grants from the government. For example, instead of personalizing the personal income tax by allowing a deduction for charitable contributions, the subsidy to charities can be accomplished through matching grants.

Because of these administrative costs, the cash flow consumption tax is not readily susceptible to the proposal made in this paper and the benefits attendant to that proposal. In addition, like the current income tax, the cash flow consumption tax is susceptible to micro management and the inefficiencies and complexities resulting from that micromanagement.[337] It requires individuals to go through the annual ritual of completing a tax return and tracking receipts and expenditures. While the cash flow consumption tax changes the base from the current income tax system, and creates some simplification by virtue of being a consumption rather than an income tax, it is not readily susceptible to point-of-sale taxation.

In contrast to the cash flow consumed income model, a VAT coupled with the Hall-Rabushka flat style tax on wage income entails less personalizing. It, therefore, is more readily susceptible to mechanical implementation. The tax can be assessed and collected largely at the point of transaction, particularly if the VAT credit to the selling firm can be subtracted electronically and automatically. Under the flat tax part of the plan, however, personalizing can take place as a part of the tax on employees' wages.

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[337] The term "micromanagement" is generally used to refer to the situation where every little detail of what one does is essentially supervised by someone else in a painstaking intrusive and nonproductive manner. The current income tax system as well as the cash flow consumption tax involves a great deal of micromanagement by the government under the guise of "targeted tax incentives," a phrase used repeatedly, if not coined, by the Administration of President Clinton. *See* Heidi Glenn, *Clinton May Offer Job-Creating and Homeowner Tax Incentives*, 72 TAX NOTES 1103 (1996).

2. *Progressivity in General*

The most important impediment to replacing the income tax involves the ability to personalize the income tax, and the most important aspect of personalizing the tax involves the issue of progressive taxation.[338] Proponents of the income tax as well as some forms of consumption tax consider this aspect of tax policy a precondition of fundamental tax reform and a necessary part of any replacement tax system.[339] Their arguments in favor of progressivity fall into four categories.

First, taxation should be based upon "ability to pay." [340] Higher income taxpayers have disproportionately greater discretionary income out of which they can pay tax, and are therefore better able to bear a disproportionately greater tax.[341]

Second, payments should be required in accordance with the benefits received by the taxpayer.[342] Higher income taxpayers derive greater benefits from our economy and society, which facilitate the higher earning.[343]

Third, taxation should require "equality of sacrifice."[344] Proponents of progressive rates on this basis generally ground their position on the assertion that an extra dollar of accumulation is worth less to a rich person than a poor person.[345] Accordingly, in order to achieve equal sacrifice, one must tax high income

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[338] For a general discussion of the arguments dealing with progressivity, see Walter J. Blum & Harry Kalven, Jr., *The Uneasy Case for Progressive Taxation*, 19 U. CHI. L. REV. 417 (1952). *See also* Walter J. Blum, *Revisiting the Uneasy Case for Progressive Taxation*, 60 TAXES 16 (1982); Boris I. Bittker, Second Lecture in Debate with Charles O. Galvin, *in* TAX POLICY: READINGS AND MATERIALS 123 (Philip D. Oliver & Fred W. Peel, Jr. eds. 1996).

[339] *Id. See also* MORRIS, *supra* note 132, at 173; GILLIS ET AL., *supra* note 214 at 735; Anne L. Alstott, *The Uneasy Liberal Case Against Income and Wealth Transfer Taxation: a Response to Professor McCaffery*, 51 TAX LAW REV. 363, 368 (1996) (arguing that the current consumption tax theorists are hiding the lack of progressivity in their proposals). *See also generally* MCMAHON & ABREU, *supra* note 128; BANKMAN & GRIFFITH, *supra* note 120.

[340] *See* WALTER J. BLUM & HARRY KALVEN, JR., THE UNEASY CASE FOR PROGRESSIVE TAXATION 64 (1953).

[341] *See id.* at 35-39.

[342] *See id.*

[343] *See id.* at 64.

[344] *See id.* at 39-45, 70-71.

[345] *See id.* at 40.

taxpayers at a disproportionately higher rate than lower income taxpayers.[346]

Fourth, a system of taxation should reduce inequality of wealth.[347] Progression accomplishes this objective.[348] If one accepts the proposition that income and wealth distribution should be more equal than what would occur in a free market, then the issue becomes how best to accomplish the redistribution. A free market, without a means of redistribution of its rewards, would generate economic inequality.[349] This inequality can be corrected more efficiently through the tax system by means of progressive rates than by intervention in the goods and services markets.[350] To be sure, some efficiency must be sacrificed to achieve more economic equality through tax policy, but a trade-off of this type may be acceptable in order to achieve the important objective of reducing economic inequality.

The arguments for progressivity can all be viewed as different aspects of an argument based upon the notion of fairness.[351] Therefore, if a principal goal of the tax system is to collect revenue in a fair and equitable manner, the argument goes, progressivity should be an essential part of that revenue raising system.[352] As a result, the argument follows, no system of taxation, whatever its merits, should be adopted to replace the income tax unless it can be made progressive and thereby allow for the collection of taxes disproportionately from taxpayers in accordance with their aggregate amount of income,[353] even if the tax base is consumption. Under this view, consumption taxes are inherently regressive when evaluated using the standard of income.[354] That is, a consumption tax will tax a smaller proportion of a taxpayer's

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[346] *See id.*

[347] *See id.* at 55, 70-80 (1953).

[348] *See id.* at 71.

[349] *See id.* at 80-81.

[350] *See id.* at 84.

[351] *See* SLEMROD & BAKIJA, *supra* note 4, at 83.

[352] *See* BLUM & KALVEN, JR., *supra* note 340, at 104.

[353] *See* Barbara H. Fried, *Fairness and the Consumption Tax*, 44 STAN. L. REV. 961, 1016 (1992); ASTOTT, *supra* note 339, at 364-66; BLUM & KALVEN, JR., *supra* note 340, at 104.

[354] *Id.*

income than even a proportionate income tax would.[355] This position is based on the legal incidence of the consumption tax.[356] The economic incidence is much more uncertain. Further, it is tempered by the possibility of a steeply graduated consumption tax. If even a graduated consumption tax would be unacceptably regressive, a flat rate consumption tax such as a single rate VAT would be even more objectionable.[357]

Advocates of a flat rate tax system, whether based on income or consumption, argue that fairness is achieved through a single flat rate, although most would concede that at a low level of income or consumption, no tax should be collected at all.[358] Thus, a single rate system with a zero bracket amount achieves that fairness.[359] Moreover, some flat rate tax advocates urge that a system that incorporates a zero bracket amount and generous standard deductions is progressive on the basis of average tax rates, although the marginal tax rate for all taxpayers subject to any rate of tax is the same.[360]

Advocates of a flat rate system further argue against progressivity on the basis of the negative consequences attendant to a steeply graduated system.[361] They argue that graduation depresses savings and investment, resulting in a smaller accumulation of capital and slower growth than would otherwise occur.[362] Graduated rates, it is further argued, stifle entrepreneurial risk because gains are taxed at a high bracket, whereas losses offset other income taxed in a lower bracket.[363] In

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[355] *See* BLUM & KALVEN, JR., *supra* note 340, at 94-95.

[356] *Id.* at 96-99; ROSEN, *supra* note 52, at 362.

[357] *See* SLEMROD & BAKIJA, *supra* note 4, at 232 (concluding that the VAT shifts more of the tax burden onto the working poor). A single rate VAT would be inherently regressive because the amount of the tax paid is not related to ability to pay. *See supra* notes 224-44 and accompanying text, describing the implementation of a VAT.

[358] *See* HALL & RABUSHKA, *supra* note 4, at 26; MOORE, *supra* note 218, at 117; SCHENK, *Value Added Tax*, *supra* note 225, at 240.

[359] *Id.*

[360] *See* ROBERT E. HALL ET. AL., FAIRNESS AND EFFICIENCY IN THE FLAT TAX 28-29 (1996); BLUM & KALVEN, JR., *supra* note 340, at 90-94.

[361] *See* HALL & RABUSHKA, *supra* note 4, at 24.

[362] *See* BLUM & KALVEN, JR., *supra* note 340 at 36-37; Federico, *supra* note 132, at 362-65.

[363] *See* SLEMROD & BAKIJA, *supra* note 4, at 116.

addition, high rates of tax create disincentives to work, causing taxpayers to trade work for more leisure.[364] To the extent that rates are graduated, the highest marginal rate of tax would be higher than a tax system containing uniform rates.[365] The disincentive towards work would be most noticeable and egregious in the case of married couples.[366] Other arguments are also made against progression, including its connection to high rates of tax, resulting in the inability of individuals to accumulate wealth and avoid the feeling of stagnation, and the effect of high rates on an increase in the incentives for cheating.[367]

No attempt can be made here to resolve the debate over progressivity. That is particularly the case because the arguments focus on the legal incidence of tax instead of the economic incidence, which is far more important but also far more difficult to determine. However, certain observations can be made that will be helpful in understanding the real trade-off involved in accepting progressivity as an essential part of the tax system. First, it is not necessary that all parts of the system of government taxation and spending, which involves both taxation and government transfer payments, be progressive. If one wanted to achieve a more equal society, one could accomplish that through a flat rate tax system with direct government expenditures disproportionately spent to benefit the less well off. This is the method employed in the Social Security system. The Social Security tax is essentially flat, but the retirement and insurance benefits to participants in the system go disproportionately to lower income participants. Eliminating the Social Security tax for lower wage employees would also achieve a greater degree of overall progressivity.[368]

Second, the desirability of reducing income inequality through the tax system must be weighed against the benefits to be achieved

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[364] *See supra* notes 117-30 and accompanying text.

[365] *See* SLEMROD & BAKIJA, *supra* note 4, at 180.

[366] *See, e.g.* GRAETZ, THE U.S. INCOME TAX, *supra* note 4, at 29-40 (discussing the "marriage penalty" where a married couple is taxed on their aggregate income at a higher marginal rate than two single people.)

[367] *See* SLEMROD & BAKIJA, *supra* note 4, at 143-52.

[368] Eliminating the Social Security tax for low wage employees would integrate the income tax and the Social Security tax and thereby increase the redistributional effects of the combined income tax and Social Security tax systems.

by reducing costs of the tax collection system. This weighing must also take into account the possibility of achieving reduced inequality by some other means. Most of the debate over progressivity has taken place in the context of an income tax, so administrative cost savings attendant to adopting a flat rate system have been regarded as relatively minor when compared with the goals advocates of progression desire to achieve.[369] When one expands the possibilities of revenue raising systems to include a system that is substantially less expensive to administer if operated using a flat rate of tax, then the arguments for and against progressivity must be re-evaluated in that broader context.

Third, advocates of a progressive tax view the income tax as the best method of taxation to achieve progressivity and, therefore, fairness.[370] Nonetheless, on close examination of the current structure of the income tax, it should be observed that there is a distinct lack of progressivity at the higher end of income, when measured against the Haig-Simons definition of personal income.[371] That is because the current income tax system fails to tax income in the form of unrealized appreciation, a benefit likely to be enjoyed most by the well off. This benefit, although generally in the nature of deferral, entails complete forgiveness of tax on gain in the case of a taxpayer who dies with the appreciated property.[372] In addition, the current structure of the income tax does not tax imputed income from property, services, or leisure. Finally, it fails to tax currently all income accruing in a qualified retirement account, whether in the form of interest, dividends, or capital gain, allowing deferral until the amounts are paid out to the beneficiary. These departures from a Haig-Simons income tax structure are likely to be unavoidable under any income tax that could be employed. It is not likely that any income tax system that is reasonably administrable could tax imputed income or unrealized gain. In addition, it is unlikely that Congress in the

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[369] *See supra* notes 338-55 and accompanying text.

[370] *See, e.g.* SLEMROD & BAKIJA, *supra* note 4, at 233; GRAETZ, THE U.S. INCOME TAX, *supra* note 4, at 275; Alstott, *supra* note 339, at 367-68.

[371] *See* ANDREWS, *supra* note 2, at 1115 (no tax on appreciation until realization).

[372] *See* I.R.C. § 1014 (a).

foreseeable future will have the desire to tax qualified retirement savings as they accrue.

3. Progressivity and Point-of-Sale Taxation

To the extent that progressivity is desirable, there are several alternatives available to accomplish some degree of progressivity under single rate point-of-sale taxation. Progressivity could be accomplished through a VAT system by shifting the legal incidence of the tax on personal service income to the service provider. As described earlier, a VAT could be charged on amounts paid for the services of employees, which would in turn generate a VAT credit to the employer purchasing the services.[373] At the employee level, low wage earners could receive a refund of a portion of the VAT paid. Thus, the personalizing features could be applied at the individual wage earner level.

To the extent the taxes are personalized, however, computation and payment would become mechanically more cumbersome, requiring reconciliation between the amounts paid automatically and the actual amount of tax due. The reconciliation of these amounts may also have to take into account the gross-up resulting from the inclusion in the employee's income of the automatically paid tax for purposes of determining the employee's tax liability. Personalized taxes would diverge from the model of automatic and electronic tax computation and collection, thereby adding expense to the tax system. If modification of a pure point-of-sale tax were desired, the system at least has semi-automatic aspects. This trade-off, however, should be given careful consideration before being accepted.

This system lends itself to electronic payments. At the individual level, a system of direct deposit for wages would facilitate the electronic crediting to the low wage employee for the VAT paid by the business with respect to the wages. The VAT refund to the employee with respect to personal service income could be based on a low income amount. An employee's wages from

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[373] *See supra*, notes 232-44 and accompanying text.

all employers would have to be aggregated for these purposes. This system would be similar to that advocated by Hall and Rabushka.

Even with this modification, however, proponents of progressivity may argue that automatic taxation at the point-of-sale is regressive because it only taxes consumption, not savings, and is not progressive at high income levels. In addition, they would argue, automatic point-of-sale taxation, whether administered as a retail sales tax or a VAT, is the most regressive consumption tax because it imposes a flat rate of tax on all sales.

As has been noted previously, point-of-sale taxation can also be achieved under an income VAT.[374] Thus, whether point-of-sale taxation is regressive depends more upon the tax base used than upon the method of collection. However, it is unclear that a consumption tax is more regressive than an income tax when measured by the economic incidence of the tax.

In addition, the retail sales tax and VAT can employ multiple rates of tax. At the extreme they can impose a low tax on food and clothing or exclude such purchases from the base entirely. However, even under an electronic system, such a modification would increase compliance costs and loss of revenue through cheating by mislabeling the goods sold as no tax or low tax goods. Consequently, as demonstrated by the European experience, a multiple rate system should be avoided.

Finally, a degree of progressivity could be worked into a sales tax or VAT in three other ways, all involving government expenditures, without disturbing the point-of-sale collection systems or the single rate of tax. First, the government, which can keep track electronically of aggregate tax collections from each individual, could refund the tax on the first predetermined amount of purchases, for example the first $20,000. Second, the government could simply refund a flat amount to all taxpayers equal to the VAT on that $20,000 of purchases. Third, the government could refund an amount equal to the sales tax rate times the poverty level through a "family consumption refund"

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[374] *See supra* Part VI.B.

established for each household.[375] The exact amount of the family consumption refund would depend upon the size of the family. All of these methods could determine the refunded amount on an annualized basis. Allowable refunds could be made for households on a periodic basis by requiring the employer to add an additional amount to the paycheck of the employee. This amount would offset the employer's other tax obligations to the government. In the case of unemployed taxpayers, refunds could be made through direct government rebates, which could be accomplished by creating credit balances on a debit card.

It should be noted that a refund based upon a taxpayer's income would require computation of that income and would thereby be counterproductive in a system designed to eliminate the need for such a computation.[376] Such a refund, however, could be based on the level of a taxpayer's earned income that is subject to social security tax, which would still be computed by employers and self employed taxpayers. The point here is that this tax refund mechanism, which is really a mechanism for government expenditures, demonstrates that taxes and spending should be considered together in evaluating wealth redistribution. Indeed, net of interest on the national debt, transfer payments currently represent the bulk of government spending.[377] In addition, many of the recent tax reductions that have been labeled "targeted tax cuts" are disguised expenditure programs and included as "tax expenditures" in the government's tax expenditure budget.[378]

Detractors of the progressive retail sales tax and VAT might fear the specter of checks flowing in many directions as a potential source of significant leakage and waste. When accomplished electronically, however, the cost of these payments and the

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[375] A similar idea is discussed in SLEMROD & BAKIJA, *supra* note 4, at 220 (creation of "income maintenance programs to offset the impact of a VAT, or perhaps a new universal tax credit paid to all individuals and families"). *See also* GILLIS ET AL., *supra* note 214, at 736-738, (rebate or refund of VAT would be paid to qualifying individuals to relieve the tax burden on the poor).

[376] *See* SCHENK, *Value Added Tax, supra* note225, at, 270.

[377] *See* Michael Boskin, *A Framework for the Tax Reform Debate, in* FRONTIERS OF TAX REFORM 10, 11, (Michael Boskin ed. 1996).

[378] Stanley S. Surrey, *Pathways to Tax Reform in* TAX POLICY 507, 509(Philip D. Oliver & Fred W. Peel, eds. 1996) (describing the federal tax expenditure budget).

opportunities for diversion should be reduced significantly. What seems infeasible in a paper and currency economy becomes substantially more feasible in an electronic economy.

Finally, progressivity can be achieved without burdening the tax collection system with the need to measure income by imposing the VAT on lifetime gifts and testamentary transfers. This system would tax wealth transfers, would deal with large accumulations of wealth, and would introduce long term progressivity. Alternatively, the current estate and gift tax system could be adjusted and modified to accomplish this goal more efficiently.[379]

On balance, any position that exalts progressivity over all other objectives of a tax system is somewhat hypocritical, because true progressivity has not been and is unlikely to be achieved in the personal income tax.[380] Progressivity itself should not be the goal. Rather, it should be a means to achieve a distribution of benefits from society for its members, and, there are alternative means available to accomplish that ultimate goal.

VIII. CONCLUSION

This article has advocated point-of-sale taxation as the most efficient and least costly means of collecting tax in an economy in which electronic funds transfers, credit and debit card transactions, and "e-money" will eventually become the standard method of making purchases and transferring funds. The point-of-sale tax system proposed in this paper would use a consumption base and would replace the income tax even if some transactions were still undertaken using cash.

A major objection to the point-of-sale taxation proposal suggested in this paper will be the presumed inability to personalize the tax so as to impose the burden, at least in large part, based upon ability to pay. In short, detractors of a transactions based tax will argue that the proposed system is regressive and therefore unacceptable. In theory, either a credit

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[379] Michael J. Graetz, *To Praise the Estate Tax, Not To Bury It in* TAX POLICY 465, 470-71 (Philip D. Oliver & Fred W. Peel, eds. 1996) (advocating increased use of transfer taxes for enhanced progressity).

[380] *See supra* note 371 and accompanying text.

type VAT or a retail sales tax can be coupled with a tax on personal service income to achieve a compromise, as long as the tax on personal service income is simple. Coupling the VAT with a tax on personal service income facilitates personalizing the tax with special aspects such as progressivity. Point-of-sale taxation, without the personalizing facilitated by an accompanying tax on personal service income, however, can accomplish substantially all of the desirable goals of the present income tax system. Adding an income tax component could substantially undercut the benefits of the transaction based tax, depending upon the degree to which the tax is personalized or used to accomplish other social objectives.

Personalizing involves adopting an additional tax collection apparatus. It involves substantial cost and deadweight loss. Adherence to a personalized tax at the cost of this deadweight loss is an undesirable choice in the face of the uncertainty regarding the economic incidence of any tax. The non-susceptibility of point-of-sale taxation to personalization is a strength of the system, not a weakness and argues in favor of its adoption. Wealth redistribution, if desired, can be accomplished better and more efficiently in ways other than through individual computation of tax liability.

Fundamental tax reform is a concept that has a long gestation period. The U.S. economy is becoming largely based on electronic payments, and it is time to consider seriously an appropriate tax system for that form of economy. As e-commerce replaces cash transactions, point-of-sale taxation, in the manner described in this paper, should replace the current income tax system.