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Chairman Camp, Ranking Member Levin, and Members of the Committee, it is an honor to appear today to discuss the advantages and disadvantages of adding a value-added tax (VAT) to the current U.S. federal tax system.

I am Professor and Chair of the Economics Department of Rutgers University. During various leaves from Rutgers University, I have served as Special Advisor to the Joint Committee on Taxation, Chief Economist for the President's Advisory Panel on Federal Tax Reform in 2005, and Director of the Urban-Brookings Tax Policy Center. I have worked on building the case for tax reform, evaluated the economic consequences of different tax reforms (including ones that would add a VAT to the current U.S. income tax system), and studied the implementation issues and transition costs associated with various reforms.

Congressional Budget Office (CBO) analysis shows that the government began this year with a projected budget deficit of 9.8 percent of GDP and its future growth is driven by rising health care costs, an aging population, and the interest payments on an ever-increasing public debt. Reducing the deficit to an economically sustainable level will require both a scaling back of expenditure programs and an increase in tax revenues. Raising significantly more revenue from the current tax system, however, is politically difficult and would be damaging to economic growth. The substantial near and long-term fiscal pressures facing the federal government require that we both reform our income tax system and consider new revenue sources including federal taxes on consumption.

A VAT is a type of consumption tax that is similar to a retail sales tax but is collected in smaller increments throughout the production process. This form of consumption tax is part of the tax systems of nearly 150 countries worldwide. All OECD member countries except the United States have VATs. In 2007, revenues generated by the VAT represented almost 19 percent of the total tax revenues of OECD countries and about 20 percent of the total tax revenues of European OECD countries.[1]

Adding a VAT to the U.S. federal tax system could help address the medium and long-term revenue shortfalls forecast for the United States. The VAT is particularly effective in raising substantial amounts of revenue in a relatively efficient manner and has proven to be an

[1] http://stats.oecd.org/Index.aspx?DataSetCode=REV.

administrable tax.[2] If the U.S. were to adopt a VAT, it could rely on the experience and best practices of other countries in setting up and administering the tax. In addition to these attributes, the VAT has a number of other advantages. First, a portion of the revenues from a VAT could be used to finance reductions in statutory income tax rates. Two tax systems (a VAT and an income tax) with low tax rates may be superior from an efficiency and administration perspective to an income tax system with higher statutory rates. Second, given the size of projected future budget deficits, adding a VAT to our current system to generate revenues for deficit reduction alone would likely have positive effects on economic growth. Third, a pre-announced and phased in VAT might stimulate the economy by encouraging consumption in anticipation of the imposition of the tax.[3] Finally, while the states are likely to protest, a properly designed VAT may actually help force them to redesign or improve their retail sales taxes.[4]

There are a number of issues that need to be addressed in designing and implementing a VAT. While a detailed discussion is beyond the scope of my testimony, there are several issues that deserve attention: the distributional impact of a VAT, the revenue effects, the interaction of a federal VAT with the retail sales taxes in place in almost every U.S. state, the impact of a VAT on economic growth, possible inflationary impacts of adopting a VAT, compliance and administrative costs, and the concern that the VAT is a "money machine" that would drive the growth of government.

Introducing a new tax to the federal tax system is a major undertaking that would increase the compliance and administrative costs of our tax system by imposing new reporting requirements on businesses and new responsibilities for tax collection on the Internal Revenue Service (IRS). Before moving to a discussion of the advantages and disadvantages of adopting a VAT, I briefly motivate why I believe it is necessary to consider adding this new revenue source to our current system.

Must we consider alternative revenue sources to meet the fiscal challenges ahead?

A natural question is whether the current U.S. tax system can simply be "dialed up" through increases in statutory marginal tax rates to raise the revenues required to bring the deficit under control. A 2010 study I coauthored with Katherine Lim and Roberton Williams of the Urban-Brookings Tax Policy Center suggests that raising significantly more revenue from the current system is politically and economically infeasible.[5] We considered illustrative incremental

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[2] See, for example, Liam Ebrill, Michael Keen, Jean-Paul Bodin, and Victoria Summers, *The Modern VAT* (Washington, D.C.: International Monetary Fund, 2001).
[3] For a discussion of the possible stimulus effects of a VAT, see William Gale and Benjamin Harris, "A VAT for the United States: Part of the Solution," in *The VAT Reader: What a Federal Consumption Tax Would Mean for America,* (Tax Analysts, 2010).
[4] Richard Bird and Pierre-Pascal Gendron, "Sales Taxes in Canada: The GST-HST-QST-RST 'System'," *Tax Law Review*, Vol. 63, No. 3 (Spring 2010).
[5] See Rosanne Altshuler, Katherine Lim, and Roberton Williams, "Desperately Seeking Revenues," *National Tax Journal*, June 2010. The estimates discussed in this testimony were recalculated from the original article using the March 2010 CBO budget update.

changes to the current income tax system aimed at reducing the deficit to an average of three percent of GDP over the years 2015 to 2019 (the last five years of the 2010 budget window).[6]

Using figures from the March 2010 CBO budget update, we found that no tax increases would be necessary to reach our three percent average deficit target if the 2001 and 2003 tax cuts were to sunset as scheduled in 2010 and Congress stops "patching" the alternative minimum tax (AMT). While tax policy under this scenario raises substantial revenue, it would subject almost one-third of taxpayers to the AMT by 2019[7] and remove some significant benefits for lower and middle income taxpayers.[8]

If the 2001 and 2003 tax cuts were extended, the AMT were patched, the estate tax was maintained at 2009 parameters, and the budgetary effects of the 2010 healthcare reform act are taken into account, all income tax rates would have to increase proportionally by 30 percent to reach the 3 percent deficit target. The proportional increase in statutory rates would have to be 50 percent if, in addition, several expiring provisions that were enacted in the American Recovery and Reinvestment Act of 2009[9] and other expiring provisions that have been in effect for a number of years were extended. This would increase the top 35 percent rate to 51 percent.

Protecting low and middle income taxpayers from these marginal tax increases would result in top rates that would stifle economic activity. If families with income under $250,000 were protected from the required rate increase, the top two rates would need to rise from their current 33 and 35 percent rates to 66 and 70 percent if the 2001 and 2003 tax cuts were extended (and the AMT were patched, the estate tax was maintained at 2009 parameters, and the budgetary effects of the recent healthcare reform act were taken into account) and to 84 and 89 percent if the other expiring tax provisions described above were also extended.[10]

Our exercise demonstrates that simply increasing statutory marginal income tax rates within our current system is not a realistic approach to reducing the deficit. Further, it shows that raising revenue solely from high income individuals is not the answer to the revenue problem going forward.[11] Changes must be made to the tax base or new revenue sources must be adopted if we hope to raise significant additional revenue from the current income tax system.

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[6] The three percent of GDP target is sometimes put forth as consistent with stabilizing the debt to GDP ratio at current levels.

[7] See Katherine Lim and Jeffrey Rohaly, "The Individual Alternative Minimum Tax: Historical Data and Projections, Updated October 2009," Urban-Brookings Tax Policy Center Working Paper (October 2010), for estimates of the number of taxpayers subject to the AMT under different baselines.

[8] The Urban-Brookings Tax Policy Center website provides detailed information on the Bush tax cuts at http://www.taxpolicycenter.org/taxtopics/Expiration_Bush_Tax_Cuts.cfm.

[9] These provisions include the Making Work Pay tax credit, the American Opportunity tax credit, and the exclusion from taxable income of certain amounts of unemployment benefits.

[10] We did not take behavioral effects into account in our analysis. Tax rates would have to be even higher if changes in taxpayer behavior in response to the increased rates were factored into the analysis.

[11] A CBO revenue option finds that raising the tax rate on ordinary taxable income in excess of $1 million for joint filers ($500,000 for other filers) by five percentage points would raise about 223 billion over the ten year period 2010-2019 (see CBO, *Budget Options: Volume II*, August 2009). That amounts to less than one-third of the revenue required to hit the 3 percent deficit target if the Bush tax cuts are extended, the AMT is patched, the estate tax was

Broadening the base through tax expenditure reform would raise revenue. In addition, limiting or eliminating tax expenditures would simplify the system, increase transparency, make it less distortive by both allowing for a lower rate and reducing tax-induced biases towards certain activity, and improve the fairness of the system. However, the biggest tax expenditures in terms of lost revenues are the most popular ones, making it politically challenging to broaden the base in a way that raises significant revenue.

Increased revenues from the corporate tax could be a target for deficit reduction. However, raising the statutory corporate tax rate will do little to buy down the deficit. In 2010, corporate revenues were less than ten percent of total revenues and one percent of GDP. Going forward, CBO forecasts corporate revenues as averaging about ten percent of total revenues and two percent of GDP for the period 2012-2021. Moreover, any increase in the corporate income tax rate will reduce domestic income and lower wages (through an outflow of capital) and adversely affect economic efficiency. In addition, any increase in the corporate tax rate can be expected to induce additional U.S. tax avoidance through transfer pricing and other methods of income shifting by multinational corporations.[12] The leakage in revenue, along with the small role played by the corporate tax in the U.S. revenue structure, suggests that corporate rate increases can, at best, move the deficit only marginally toward a sustainable path.[13] Ameliorating the United States' fiscal challenges will require either more comprehensive and politically difficult personal income tax reforms or tapping new sources of revenues.

What is the VAT?

The VAT can be thought of as a retail sales tax that is collected in stages instead of all at once from the final consumer. The tax is collected by all businesses that provide (taxable) goods and services and is imposed on (taxable) sales to all purchasers. A business calculates its liability by taking the total value of its sales and multiplying by the VAT rate. The business is then permitted to offset its VAT liability by the amount of VAT paid for its purchases of goods and services. In this way, the tax is placed on the value added at each stage of production.

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maintained at 2009 parameters, and the budgetary effects of the recent healthcare reform act were taken into account and less than one-fifth of the revenue required if other expiring tax cuts are extended as well.

[12] Clausing (2009) finds that every one percentage point differential between the U.S. and a particular foreign corporate tax rate is associated with a 0.5 percentage point increase in reported profits abroad. Clausing notes that an effect of this magnitude implies that, in 2004, the corporate tax rate differential induced U.S. and foreign-owned multinational corporations to shift over $180 billion in profits—and over $60 billion in tax revenues—out of the United States. See Kimberly Clausing, "Multinational Firm Tax Avoidance and Tax Policy," *National Tax Journal*, December 2009.

[13] In the domestic context in particular, the corporate income tax is essentially optional for all nonpublic companies because they can use legal forms of business that provide limited liability but that are taxed at the individual level as pass-through entities. As a result, only about one-half of domestic net business income is subject to the corporate income tax (U.S. Department of Treasury, *Treasury Conference on Business Taxation and Global Competitiveness Background Paper*, July 2007).

The 2005 report of the President's Advisory Panel on Federal Tax Reform contains a simple example of how the VAT works.[14] Imagine a boot maker that produces cowboy boots. He buys leather and other supplies enough for one pair from a leather shop at a cost of $200 before taxes. (For simplicity, assume the leather shop has no input costs). The boot maker sells each pair of boots he makes for $500 before taxes.

If a 10 percent retail sales tax were in place, the boot maker would add the tax to the cost of the $500 pair of boots, and the consumer would pay $550 per pair. The leather shop would not impose a retail sales tax on its sale to the boot maker because such a business-to-business transaction would not be treated as a retail sale.

Under a 10 percent VAT, the tax calculation works differently. The VAT is charged on all sales of goods and services, not just sales to consumers. While there are different ways to administer the VAT, almost every country with a VAT uses the credit-invoice method.[15] Under this method, the leather shop would collect a VAT of 10 percent, or $20 on the $200 of supplies purchased by the boot maker. The boot maker would pay the leather shop $220, and the leather shop would send the $20 to the government. When the boot maker sells the boots, he computes the VAT as $50, and charges the purchaser $550 for the boots. Instead of sending $50 to the government, however, the boot maker would subtract the $20 of VAT already paid to the leather shop and remit $30 to the government.

The $20 credit that the boot maker applies against his VAT liability is called an "input credit." The invoice received from the leather shop would show $20 of VAT paid and serve as proof that the boot maker can take the credit. The government would receive $20 from the leather shop and $30 from the boot maker. Note that the government receives the same revenue under a VAT as it would under a retail sales tax ($50), and from the consumer's perspective the taxes look identical.

This example illustrates one of the advantages of the VAT over the retails sales tax. Compliance risk is lower under the VAT because revenue is secured while collected throughout the chain of production, unlike a retail sales tax, under which all tax is lost if there is evasion at the final stage. In addition, retails sales taxes can have cascading effects (i.e. multiple levels of tax on an item as it makes its way from production to final retail sale) since it can be difficult administratively to separate business-to-business sales from final sales. In fact, in many countries that have adopted a VAT, the tax has replaced inefficient sales-type taxes collected at the wholesale or manufacturing level.

Border adjustments

Like retail sales taxes, VATs throughout the world are set up to tax domestic consumption. This means that exports should be outside the VAT tax base. Because the VAT is assessed at every level of production and distribution, a "border adjustment" is necessary to exclude exports from

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[14] President's Advisory Panel on Federal Tax Reform, *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*, (Washington, DC: U.S. Government Printing Office, 2005).

[15] Japan is the only country to impose a VAT with subtraction-method features. For a discussion of the advantages of using a credit-invoice method VAT, see Itai Grinberg, "Where Credit is Due: Advantages of the Credit-Invoice Method for a Partial Replacement VAT," http://www.americantaxpolicyinstitute.org/pdf/VAT/Grinberg.pdf.

the VAT. These adjustments are made by allowing businesses to claim input credits on exports while exempting their sales from the VAT. While it is commonly believed to provide trade benefits, exempting exports and taxing imports on its own would not enhance our trade competitiveness. Economists generally believe that exchange rate adjustments or other price level changes offset border tax adjustments in the long-term and eliminate any advantage or disadvantage border adjustments might otherwise create.[16] During the adjustment period there could be real trade effects, however, and specific industries and markets could be affected if the VAT excluded many goods and services.

Distributional effects

As explained above, the VAT is equivalent to a retail sales tax but is collected at different stages of the production process. Since higher income households save more than those with lower or moderate incomes, the burden of the tax increases with current income reducing the overall progressivity of the tax system.[17] The additional VAT burden, however, can be relieved for low and middle income households through refundable credits. When Canada implemented a VAT in 1991, called the Goods and Services Tax (GST), it added a refundable sales tax credit based on family size that phases out with income to relieve the burden on lower and middle income families.[18] This approach to relieving the VAT burden is more effective than exempting food and other necessities from taxation (or applying preferential rates) since it can be targeted to lower and middle income households rather than all households. In addition, practical experience with VATs shows that having preferential or zero rates for some goods and services creates complexity, affects compliance, can invite tax evasion as products are deliberately misclassified to avoid tax, and produces legal uncertainty as policymakers struggle to classify goods for special treatment.[19]

It is important to note that the indexation of transfer payments also mitigates the burden of the VAT for low income households. Any price-level adjustments associated with the introduction or change in the VAT (and any sales tax) will automatically trigger increases in transfer payments that offset the regressive impact of the tax.

One concern with introducing a VAT is that it would hurt the elderly since they have high consumption relative to their income. However, since Social Security and Medicare benefits are effectively indexed for inflation, low income elderly households would be largely protected from any VAT induced increases in the price of consumer goods or healthcare services.

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[16] For a good discussion of the impact of border-adjustments on trade see Alan Viard, *Keynes at the Border*, http://www.american.com/archive/2009/april-2009/keynes-at-the-border.

[17] When measured as a percent of life-cycle spending, the degree of regressivity of the VAT would be reduced.

[18] Canada both provides a rebate to offset regressivity and zero-rates some necessities (basic groceries, prescription drugs, and medical devices). In addition, residential rents are exempt from the Canadian GST.

[19] See Alain Charlet and Jeffrey Owens, "An International Perspective on VAT," *Tax Notes International*, September 20, 2010.

The Urban-Brookings Tax Policy Center (TPC) has recently released a report that describes a new methodology for distributing the VAT.[20] The report illustrates the distributional impact of a 5 percent VAT. The authors use a VAT base that covers about 57 percent of domestic consumption. While regressive in the absence of a rebate, the authors show that the impact on low and middle income households could be offset by allowing a rebate in the form of a refundable credit claimed on income tax returns. With the rebate, the VAT is progressive throughout almost the entire income distribution.[21] The TPC study shows that one should not look at the distributional impact of the VAT in isolation. The progressiveness of the complete federal tax system --- with VAT rebates, for example --- must be taken into account.

Revenue effects

The broader the base of any VAT imposed, the more efficient it will be at collecting revenue. The revenues collected, of course, depend on the base and the rate. One measure of the efficiency of a VAT that takes both parameters into account is the ratio of VAT revenue to the product of aggregate consumption and the standard VAT rate. This measure, the "C-efficiency" of a VAT, would be 100 percent if the VAT were levied uniformly on all consumption. Imposing zero or reduced rates and/or exempting final consumption from the VAT will lower its C-efficiency. This measure varies considerably over OECD countries from 30 percent in Mexico to almost 100 percent in New Zealand (the gold standard of VATs) in 2005. The average C-efficiency of all OECD country VATs was 53 percent in 2005.[22]

Toder and Rosenberg (2010) develop a prototype broad VAT base for the U.S. that would cover almost 80 percent of consumption.[23] They estimate that with a 5 percent rate, the VAT would raise $355 billion in 2012 which translates to a C-efficiency of 63 percent. Toder and Rosenberg follow government estimating conventions and assume that GDP remains fixed when tax policy is changed. If a consumption tax is imposed and nominal GDP and prices are fixed, factor incomes must fall. As a result, decreases in revenues from the individual income, corporate income, and payroll tax revenues will partially offset the revenue gains of the VAT. Toder and Rosenberg estimate a 27 percent decrease in revenues from these taxes bringing the revenue gain from the VAT down to $259 billion in 2012. A refundable tax credit for all households --- designed to generate the same revenue loss as exempting rent, new home purchases, food consumed at home, and private health expenditures from the VAT base --- brings the yield down to $161 billion or about 1 percent of GDP.

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[20] Eric Toder, Jim Nunns, and Joseph Rosenberg, *Methodology for Distributing a VAT*," Urban-Brookings Tax Policy Center, April 2011, http://www.urban.org/uploadedpdf/1001533-Methodology-Distributing-VAT.pdf.
[21] The VAT burden as a share of income increases from 0.4 percent for the lowest quintile to 2.4 percent for the top quintile. In the top quintile, the VAT burden is roughly proportional to income.
[22] OECD, *Consumption Tax Trends 2006:VAT/GST and Excise Rates, Trends and Administration Issues*, 2006.
[23] The broad base includes all domestic consumption, except for education, government-financed health care (Medicare and Medicaid), services of charitable organizations, and services performed by sub-national governments. State and local sales taxes and the imputed value of financial services are exempted from the base. See Eric Toder and Joseph Rosenberg, "Effects of Imposing a Value-Added Tax to Replace Payroll Taxes or Corporate Taxes," Urban-Brookings Tax Policy Center (March 2010).

Policy analysts point out that given the fixed administrative costs of the VAT the U.S. should adopt a VAT at a fairly substantial rate.[24] The Toder and Rosenberg study suggests that with a 10 percent rate, a VAT that covers almost 80 percent of consumption and includes a rebate to offset the regressivity of the tax could raise about 2 percent of GDP.

Interaction with the states

Coordinating states' retail sales taxes with the VAT would be a major challenge. States would likely view a VAT as an intrusion on their traditional sales tax base. If states were to bring their sales tax bases into conformity with the broad federal base and coordinate their sales tax collection systems with the federal regime, however, they could improve the efficiency of their sales taxes. Compliance burdens for multistate businesses and administrative costs for states could be reduced. And if the states moved to impose state level VATs, even greater gains in terms of simplicity and lower compliance burdens might be achieved.

The Canadian experience is particularly relevant to the U.S. case. Canada introduced a federal VAT in 1991 to replace a federal manufacturing sales tax that had many serious administrative deficiencies and undesirable economic effects.[25] At the time, retail sales taxes similar to those found in the United States existed in all of Canada's provinces except Alberta.

Quebec followed the lead of the federal government and replaced its retail sales tax with a provincial VAT (called the Quebec Sales Tax or QST) when the VAT was introduced. Quebec administers both the QST and the GST. In 1997, after much negotiation, the three Atlantic provinces of New Brunswick, Nova Scotia, and Newfoundland and Labrador replaced their retail sales taxes with VATs. Unlike in the Quebec case, the three provinces decided to adopt the federal GST base and have the federal government collect both the federal and provincial VATs. In July 2010, Ontario and British Columbia replaced their sales taxes with VATs. Five provinces have kept their sales taxes.

While the Canadian system is a bit messy, it functions well and demonstrates that a federal VAT can exist side by side with different state sales taxes. Canadian tax scholars Richard Bird and Pierre-Pascal Gendron (2010) conclude that[26]:

> "The Canadian experience shows that the existence or non-existence of sub national retail sales taxes is, in both technical and economic terms, a matter of indifference when considering a federal VAT. On the other hand, the existence of a federal VAT may be extremely important from the perspective of sub national governments that wish to improve their sales taxes." (page 2)

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[24] See William Gale and Benjamin Harris "A VAT for the United States: Part of the Solution," in *The VAT Reader: What a Federal Consumption Tax Would Mean for America, (Tax Analysts*, 2010) and Eric Toder and Joseph Rosenberg, "Effects of Imposing a Value-Added Tax to Replace Payroll Taxes or Corporate Taxes," Urban-Brookings Tax Policy Center (March 2010).
[25] *Ibid* 4, at 2.
[26] *Ibid*.

The Canadian experience shows that concerns about the states should not prevent the U.S. from adopting a VAT. William Gale and Benjamin Harris suggest that if all states dropped their sales taxes and harmonized and if the federal VAT rate were 10 percent, the combined state and federal VAT rate would be around 15 to 17 percent.[27] This combined rate would be slightly below the OECD average of about 18 percent but, according to Gale and Harris, sufficient to close much of the long-term fiscal gap and replace or improve state-level sales taxes.

Economic Growth

A substantial body of economic research finds that replacing an income tax with a broad-based consumption tax would have a positive effect on economic growth.[28] Recent work from the economists at the OECD suggests that the VAT is more pro-growth than personal and corporate income taxes.[29]

A broad-based VAT applied at a single rate is economically efficient because it generally does not distort consumers' choices among goods and services and does not discourage household savings choices (if the rate is constant over time). Like income and payroll taxes, a VAT does, however, distort households' work/leisure decisions. The VAT would have no impact on business decisions. The presence of a VAT would not distort business choices relating to how much to invest, what types of assets to purchase, where to invest, how to finance investment, and whether to incorporate or operate outside the corporate form.

While adopting the VAT would increase distortions to the work/leisure decision, the VAT would impose an efficiency enhancing one-time tax on existing wealth. And revenues from the VAT could be used buy down the deficit and/or reduce individual and corporate statutory tax rates. Large and persistent deficits can have negative effects on economic growth by reducing national savings, driving up interest rates, and increasing our reliance on foreign investors. A single-rate VAT on a broad-base at a rate of 10 percent could go a long way towards closing our fiscal gap. Using some VAT revenues to buy down statutory income tax rates would also have positive effects on growth. Lower marginal income tax rates on individuals and businesses would strengthen incentives to save, invest, work, and innovate while making our tax system more efficient.

Compliance and Administration Costs

Having to collect and pay both VAT and a business income tax would likely increase total compliance costs for businesses. It would also create an additional set of administrative

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[27] *Ibid* 23, at 7.
[28] See, for example, Alan Auerbach, "Tax Reform, Capital Allocation, Efficiency, and Growth," in *Economic Effects of Fundamental Tax Reform*, (Washington, DC: Brookings Institution Press, 1996); Don Fullerton and Diane Lim Rogers, "Lifetime Effects of Fundamental Tax Reform" also in *Economics Effects of Fundamental Tax Reform*; and David Altig, Alan Auerbach, Laurence Kotlikoff, Kent Smetters, and Jan Walliser, "Simulating Fundamental Tax Reform in the United States," *American Economic Review*, June 2001.
[29] See Jens Arnold, Bert Brys, Christopher Heady, Asa Johansson, Cyrille Schwellnus and Laura Vartia, "Tax Policy Reform and Economic Growth," *Economic Journal*, Volume 121, Issue 550, February 2011.

responsibilities and costs for the IRS. A 2008 Government Accountability Office (GAO) study includes data that indicates that a VAT may be less expensive to administer than an income tax.[30] GAO reports that in the United Kingdom, administrative costs of the VAT are 0.55 percent of revenue collected compared to 1.27 percent for the income tax. Further evidence comes from New Zealand. Officials at the New Zealand Inland Revenue Department told GAO that administering their VAT was simpler than administering some of their other taxes.

Some noncompliance is inevitable in any tax system. Evasion in a VAT can range from simple non-filing and non-payment of tax by businesses to complex schemes in which goods pass through a series of transactions designed to generate counterfeit input tax refunds. The OECD reports noncompliance rates ranging from 4 percent to 17.5 percent in major developed economies with VAT systems.[31] The United Kingdom Revenue and Customs reports a tax gap of 13 percent for the VAT and 8 percent for all direct taxes.[32] This compares to a tax gap for the entire U.S. tax system (with mostly direct taxes) of 16 percent.[33]

Small business

Because the compliance costs associated with a VAT may require a significant investment for some small businesses, it would be important to consider how to treat such businesses in a VAT. Most countries with VATs address these concerns by exempting them from collecting the VAT. In 2007, 24 of the 29 OECD countries with a VAT exempted businesses with gross receipts beneath specified thresholds, varying from $4,800 to $93,600.[34] It is possible to exempt many small businesses from collecting the tax without significant revenue loss. There are two reasons for this result. First, because the VAT is collected in fractions at every stage of production (rather than once at the retail level like a sales tax), and many small businesses buy many of their inputs from larger businesses, exempted small businesses would still pay tax on their inputs. As a result, much of the tax on any final good sold by a small business would still be collected. Second, exempted small businesses would be allowed to voluntarily register to collect a VAT. Some exempted businesses that sell primarily to other businesses would choose to collect VAT voluntarily in order for them and their customers to be able to claim input tax credits on their purchases.

The GAO estimated in 1993 that a VAT collection threshold of $100,000 in taxable annual gross receipts would reduce the number of businesses filing VAT returns from about 24 million to about 9 million.[35] They further concluded that approximately 19 percent of small businesses qualifying for the exemption would nonetheless voluntarily collect the VAT. Estimates for 2003 suggest that only 1.8 percent of gross receipts are collected by businesses with less than

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[30] GAO, *Value-Added Taxes: Lessons Learned from Other Counties on Compliance Risks, Administrative Costs, Compliance Burden and Transition*, GAO-08-566, 2008.
[31] OECD, *Recent Policy and Administration Developments in VAT/GST*, March 2005.
[32] HM Revenues and Customs, *Measuring Tax Gaps 2009*, (March 2010, revised).
[33] IRS, ''Tax Gap Figures,'' February 2006.
[34] OECD, *Consumption Tax Trends*, 2008.
[35] GAO, *Tax Policy: Value-Added Tax: Administrative Costs Vary with Complexity and Number of Businesses*, GGD-93-78, 1993.

$100,000 in annual gross receipts.[36] Thus, a VAT collection threshold at this level likely would not lose significant revenue, particularly when voluntary collection is taken into account.

To summarize, the VAT compares favorably with other taxes in terms of costs of administration, compliance burdens, and opportunities for evasion. Small business concerns could be addressed by exempting them from collecting the VAT with relatively minor revenue consequences.

Inflationary concerns

Some observers worry about the pressure that adopting a VAT would have on prices. The Federal Reserve Board could accommodate the one-time increase in price that would result when the VAT is added to the tax system by expanding the money supply. As Gale and Harris have pointed out, not doing so would create significant and unnecessary adjustment costs in terms of lost jobs and wages.[37] One question is whether the VAT would be associated with continually increasing prices. Economic research suggests that this should not be a concern. International experience with recent VAT increases suggests that tax-induced increases in the inflation rate are temporary and are reversed once the tax increase passes through.[38]

Political Economy Concerns

The 2005 President's Advisory Panel on Federal Tax Reform studied an add-on VAT but did not recommend it as an option. One important factor in the Panel's decision not to recommend the add-on VAT option was several Panel members' concern about how introducing a supplemental VAT might affect the size of the federal government in the medium or long run. These Panel members were concerned that adding a VAT on to the current income tax structure could, over time, lead to growth of federal outlays as a share of GDP.

There are relatively few empirical studies on the relationship between the adoption of a VAT and the growth of government spending.[39] Simple country comparisons suggest that countries without VATs, like the United States, have a smaller government sector than countries with VATs. However, more sophisticated statistical studies that control for other factors that may affect the relationship between the size of government and the presence of a VAT yield mixed results. The most recent study finds weak evidence that governments with VATs raise more revenue, all else equal, than those without.[40] This study finds no strong evidence, however, that the VAT in itself has caused the growth of government. The authors conclude that the VAT has

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[36] Kelly Luttrell, Patrice Treubert, and Michael Parisi, *Integrated Business Data 2003*, Statistics of Income, IRS, http://www.irs.gov/pub/irs-soi/03intbus.pdf.
[37] *Ibid* 3, at 2.
[38] Michael Keen, Mahmood Pradhan, Kenneth Kang, and Ruud de Mooij, "Raising the Consumption Tax in Japan: Why, When, How?" *IMF Staff Discussion Note*, June 2011.
[39] For the most recent, and rigorous, empirical study of the "money machine" hypothesis see Michael Keen and Ben Lockwood, "Is the VAT a Money Machine?" *National Tax Journal*, December 2006.
[40] *Ibid*.

been proved to be a particularly effective form of taxation that has reduced the use of less effective tax instruments.[41]

Studies of VATs in other nations may not provide much guidance on the effect of adopting a VAT in the United States. Most developed countries initially used a VAT to reduce or eliminate other consumption taxes, such as existing sales or excise taxes. The United States has no broad-based pre-existing federal consumption tax to replace. Thus, whether adopting a VAT would fuel the growth of U.S. federal spending remains an open question. What is clear, however, is that the VAT is an efficient instrument to raise revenue.

Given the lack of conclusive empirical evidence on the impact of a VAT on the growth of government some panelists did not support recommending an add-on VAT. Other panelists were more confident that voters could be relied upon to understand the amount of tax being paid through a VAT, in part because the proposal studied by the Panel would have the VAT separately stated on each sales receipt provided to consumers (as does Canada). These panelists envisioned that voters would appropriately control growth in the size of the federal government through the electoral process.

Conclusions

The fiscal challenges ahead are daunting. Instead of spending the next two years engaging in an endless debate of whether to extend the 2001 and 2003 tax cuts, I urge you to focus on building support for and designing a reform of the current system that can reduce our future unsustainable debt burdens and enhance the growth of the U.S. economy and the well-being of Americans.

The VAT on its own cannot solve the country's fiscal problems. And introducing a VAT has its own problems. If we adopted the VAT, we would have to institute some form of rebate to offset its regressivity and make every effort to adopt the broadest possible base. We would need to increase IRS resources for administration and be attentive to a range of compliance issues. But we must recognize that near and long-term fiscal pressures will require that we raise more revenue from our tax system. The VAT is an efficient revenue raiser that is likely to be significantly less damaging to economic growth than increasing personal and corporate statutory rates. After considering the range of issues associated with adopting a VAT, I conclude that the United States may be best served by combining a base-broadening reform of the current income tax system with the introduction of a VAT.

Thank you. I would be happy to answer any questions you may have.

[41] *Ibid*.