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A Federal Consumption Tax as Replacement for the Employer Payroll Tax

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ABSTRACT

Introducing a federal consumption tax as a replacement for the employer payroll tax would achieve the intended policy goals of prior consumption tax proposals while overcoming their policy shortcomings. The base and design of the consumption and employer payroll taxes are closely related, minimizing risks of economic dislocations and unintended consequences. The proposal is progressive, reduces horizontal inequities, and improves economic efficiency.

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INTRODUCTION

Nearly all countries in the world, and all developed countries except the United States, raise a significant share of revenues from broad-based national consumption taxes. At some point, the United States may also adopt a broad-based federal consumption tax as a significant source of revenue. Many proposals would introduce a consumption tax in some form—a retail sales tax, value-added tax, business transfer tax, flat tax, or X-tax—into the federal tax system. Some of these proposals would use the revenue from the consumption tax to reform or replace the income tax, some would replace other taxes as well, and some are designed to raise revenue earmarked for spending on health care or for general deficit reduction.

The key policy justifications for shifting the federal tax system toward consumption taxation are compelling: unlike the income tax, consumption taxes do not distort saving and investment decisions or decisions about the form of business organization and finance, so the shift could improve economic efficiency. Further, some forms of consumption taxes are comparatively easy to administer, with relatively low administrative and taxpayer compliance costs. But all previous consumption tax proposals have serious policy shortcomings that could outweigh potential gains in economic efficiency and ease of administration and compliance. These policy shortcomings include:

- Risks. Some proposals would introduce a new, untested, form of a national consumption tax as a replacement for most or all current federal taxes. Such reforms could cause major economic dislocations and would likely have large unintended consequences.

- Regressivity. Consumption taxes are not as progressive as the income tax, so replacing the income tax with a consumption tax—or introducing a consumption tax only to raise revenue—would be a regressive change to the federal tax system.

- Narrow base. The design of some of the proposed consumption taxes include, or would foster, exemptions from the base. A narrow base reduces economic efficiency because it distorts consumption choices and requires a higher rate that encourages tax evasion. Further, exemptions result in unequal tax burdens on households that consume the same total amount of goods and services.

- Administrative problems. To mitigate regressivity, some of the proposed consumption taxes collect a portion of the tax from households rather than collecting all of the tax from businesses. This design significantly increases compliance costs. And for some forms of consumption tax, evasion would be a significant problem.

- Price level. Some proposals impose a very high consumption tax rate directly on retail sales. It seems likely that the Federal Reserve would accommodate the introduction of such a tax by allowing the price level to rise, which could cause dislocations because prices and incomes would not all adjust at the same rate or by the same relative amount.

- "Money machine." Some observers are concerned that the adoption of a federal consumption tax would inexorably lead to higher spending. The evidence for any such causative link is weak at best, but the concerns are heightened by proposals that simply raise revenue without reforming or replacing one or more existing taxes.

We propose a new approach to the introduction of a broad-based federal consumption tax as a replacement for the current employer payroll tax and show that this approach achieves the intended policy goals of prior proposals, while overcoming their shortcomings. The base and design of the consumption and employer payroll taxes are closely related, so the proposal carries little risk of economic dislocations or unintended consequences. We find that the proposal would be quite progressive and also reduce horizontal inequities. The base of the consumption tax is comprehensive and there is a single, flat rate, so economic efficiency would be improved on a number of margins. The consumption tax would impose no compliance burdens on households and no, or only modest, net new compliance burdens on most businesses. As a replacement for an existing tax collected by businesses, it appears unlikely that the Federal Reserve would need to accommodate the reform with a higher price level and concerns that the consumption tax would cause spending to rise should be mitigated. In sum, we believe the proposal offers a very pragmatic and promising avenue for successfully integrating a well-designed consumption tax into the existing federal tax system.

The paper begins with an overview of the proposal that explains how the consumption tax would work, its effects on revenues, government spending and the deficit, and the results of our analysis of its effects on the distribution of the tax burden, economic efficiency, and administrative and compliance burdens. We then briefly describe the major current proposals that would introduce some form of federal consumption tax, indicating how well they achieve policy objectives and avoid policy shortcomings. The remainder of the paper provides a detailed description of the proposal and our analysis of its effects, a description of how transfers to the Social Security and Medicare Trust Funds as well as Social Security wage histories and benefit calculations are fully preserved under the proposal, and a brief discussion of other issues related to the proposal, including the possibility of phasing in the proposal, transition relief, and the treatment of negative liabilities.

OVERVIEW

The proposal replaces the employer payroll tax with a credit-invoice value-added tax (VAT), the form of broad-based national consumption tax used in over 150 countries around the world. Businesses collect VAT on all of their sales receipts, but receive a credit for any VAT included in their purchases from other businesses. This collection mechanism builds in incentives for voluntary compliance.[1] In addition, VATs are border adjustable (i.e., imports are taxed while tax is removed from exports) under well-established international law.[2] Border adjustability is an important feature because it broadens the U.S. consumption tax base (due to our current trade deficit), but contrary to popular belief, we do not think it would have much effect on international competitiveness.[3] In the remainder of the paper, we refer to the proposed tax as a "goods and services tax," or GST, which is the label used in Canada, Australia, New Zealand, and a few other countries for their modern value-added taxes.[4]

We use the GST to replace the employer payroll tax for Social Security and Medicare because the base and design of the two taxes are closely related. Wages and earnings from self-employment, the base of the employer payroll tax, are also included in the base of the GST. Further, the base of the employer payroll tax applies to virtually all wages and self-employment income, so is very comprehensive, and the base of the GST (described below) should likewise be very comprehensive. Administratively, the employer payroll tax applies only to businesses and other employers (governments and nonprofit organizations), so it imposes no compliance burden on households, and the GST likewise applies only to businesses and other employers. Finally, both taxes impose "tax-exclusive" rates that are expressed and calculated the same way.[5] These similarities between the employer payroll tax and the replacement GST help minimize the risk of dislocations and unintended consequences from the proposal.

[1] See Pomeranz (2015).
[2] Mechanically, tax is removed from exports by "zero rating" them, meaning there is no VAT imposed on export sales, but exporters are allowed a credit for the amount of VAT included in their purchases from other businesses.
[3] See below for an explanation of why border adjustability would not change our international competitiveness.
[4] The older European style VATs generally have relatively narrow bases and multiple rates, so do not provide a good model for a U.S. national consumption tax.
[5] Tax exclusive rates apply to a base that excludes the tax. In contrast, employee payroll and income tax rates are generally "tax inclusive" because their tax bases include the tax.

GST Base

The GST base includes all sales of goods and services to households; there are no exclusions. We estimate the size of this portion of the GST base using the measure of household consumption included in the National Income and Product Accounts.[6] NIPA consumption includes the amount of fees and charges collected from households by hospitals, universities, and other commercial-like activities of governments and nonprofit organizations. These commercial-like activities would be treated like any other business for GST purposes. In addition, the GST base includes the spending of governments and nonprofit organizations on purchases of goods and services and compensation of employees that is not financed by fees and charges, such as national defense, education, subsidized health care, and highways.[7]

We estimate the GST base to be $12.7 trillion in 2015, or 70 percent of gross domestic product (GDP). This base is much more comprehensive than the bases of value-added taxes in most countries, which in developed countries are typically only about 35 percent of GDP.[8]

Rates and Effects on Federal Revenue and Spending

The proposed repeal of the employer payroll tax would reduce revenue, while introduction of a GST would raise revenue. In addition, we assume that the federal government would adjust grants to state and local governments in order to offset the effects of the GST on their budgets.

We use two GST rates to illustrate a range of effects of the proposal on government revenues and spending, the distribution of tax burdens, and marginal tax rates. One rate is the current employer payroll tax rate on wages below the OASDI cap, which is 7.65 percent. The other is the rate required to make the proposal *deficit* neutral, which is 4.1 percent.

Table 1 summarizes the effect of the proposal on federal revenues and spending, and the resulting change in the federal deficit. With a rate of 7.65 percent, the proposal

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[6] NIPA data are prepared by the Bureau of Economic Analysis in the U.S. Department of Commerce. As explained in detail below, we adjust the NIPA consumption measure for policy and administrative reasons and to account for noncompliance to arrive at our estimate of the amount of household consumption in the GST base.

[7] We discuss below the policy reasons for including the spending of governments and nonprofit organizations in the GST base.

[8] Bartlett (2011) cites statistics that indicate the base of the value-added taxes in a number of developed countries average about 50 percent of consumption. In the United States, consumption represents about 70 percent of GDP (see Table 2 below).

would have raised nearly $295 billion in 2015 but also required an increase of over $7 billion in grants to state and local governments to offset the effect of the GST on their budgets. The net reduction in the federal deficit would have been $287 billion, an amount that could have been used to finance income tax reform, to reduce the deficit, or for a combination of these and other purposes. The 4.1 percent rate would have achieved deficit neutrality, with a reduction of $5 billion in revenues and an offsetting reduction in grants to state and local governments.

TABLE 1

Summary of Effects of Proposal on Federal Revenue and Spending in 2015

Billions of dollars

	GST Rate	
	7.65%	4.10%
Repeal Current Employer Payroll Tax	-516.3	-516.3
GST (after offsets)	810.9	511.4
Change in Federal Revenues	294.6	-4.9
Change in Federal Spending (Grants to State & Local Governments)	7.3	-4.9
Change in Federal Deficit	-287.3	0.0

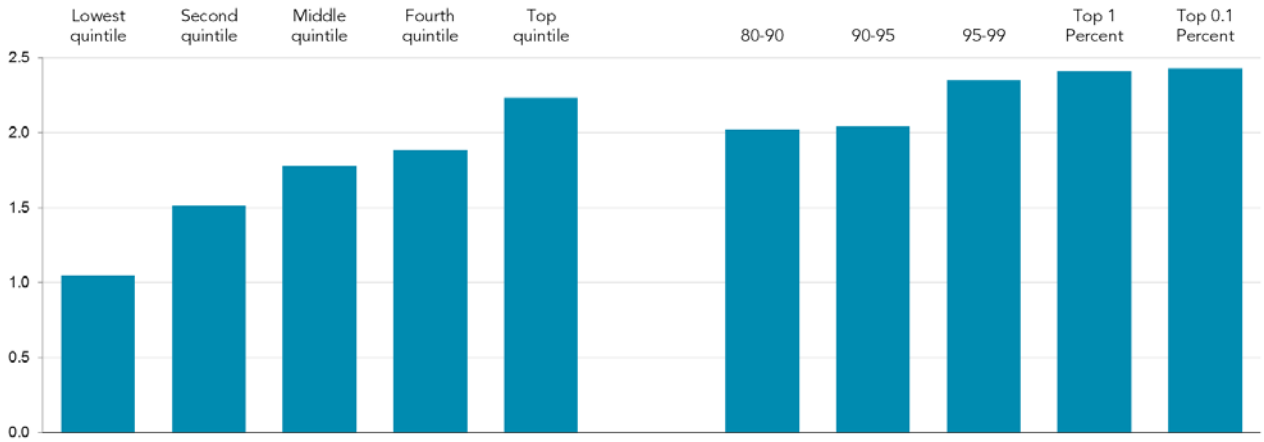
Sources: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-2) and TPC estimates.

Distributional Effects

The proposal would be quite progressive with either GST rate (Figure 1). With a GST rate of 7.65 percent, average effective tax rates (taxes as a percentage of income) would increase for all income groups, but the increase would be the smallest for the lowest quintile and increase steadily with income. With a 4.1 percent rate, average effective tax rates would fall (i.e., taxes would be cut on average) for all, but the top 5 percent of tax units and the top 0.1 percent would have the largest average increase in effective tax rates.

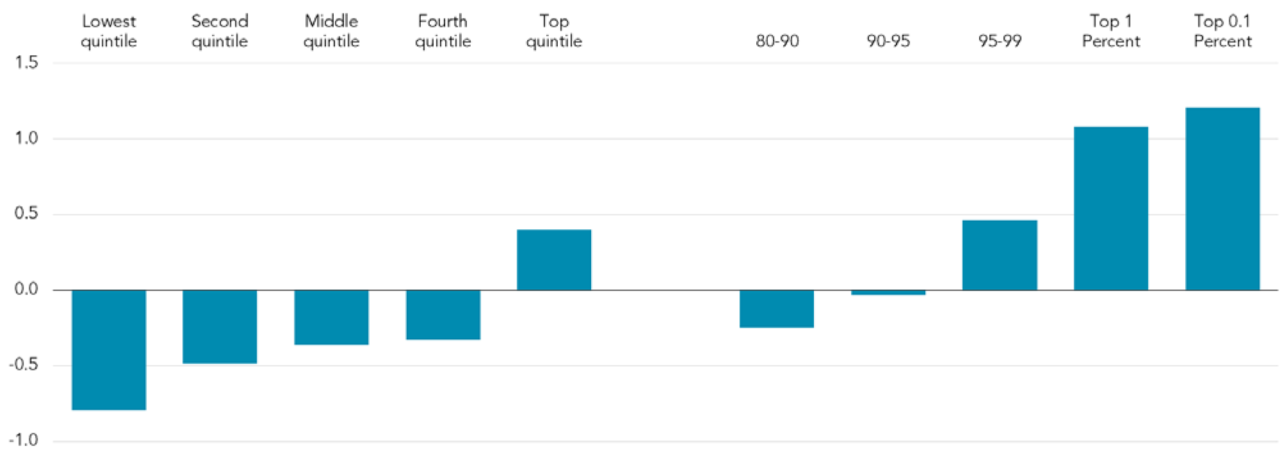
FIGURE 1

Change in Average Effective Tax Rates (Taxes as a Percent of Income) Due to Proposal in 2015
GST Rate of 7.65%



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-2).

Change in Average Effective Tax Rates (Taxes as a Percent of Income) Due to Proposal in 2015
GST Rate of 4.1%



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-2).

Effects on Economic Efficiency

There are several distortions in the employer payroll tax that are completely absent from the GST. By replacing the employer payroll tax with the GST, the proposal would remove these distortions and improve economic efficiency. The proposal would also improve incentives to participate in the work force and to work more hours, by reducing marginal tax rates on wages for all workers except the highest 5 percent of earners. The GST might reduce investment incentives because it increases marginal tax rates on "supernormal" returns to investment (returns such as monopoly profits) that are not taxed under the employer payroll tax. However, to the extent supernormal returns are simply economic rents, any incentive effects are likely to be small.

In addition, the comprehensiveness of the proposed GST base avoids distortions present in many consumption tax proposals (see the discussion in the following section). And unlike the income tax, the GST does not distort savings and investment decisions or decisions about the form of business organization and finance. The GST could therefore provide a solid foundation for business tax reform.

Administrative and Compliance Burdens

Replacing the employer payroll tax with a GST would impose no new compliance burdens on households, and would not significantly change the compliance burdens of sole proprietorships, which represent the majority of businesses. Compliance burdens would increase for other businesses, but the increase could be alleviated for most of these businesses if they were allowed to use the GST base as the starting point for their income tax base. Governments and nonprofit organizations would see some increase in compliance burdens, and the GST would place new administrative responsibilities on the IRS.

Preserving Social Security and Medicare Accounting

Although the proposal repeals the employer share of the Social Security and Medicare payroll tax system, it retains the employee share without modification. The employee share is all that is needed to preserve the current-law level of transfers to the Social Security and Medicare Trust Funds, as well as workers' wage histories and the computation of Social Security benefits.

OTHER CONSUMPTION TAX PROPOSALS

In the following we describe the major recent proposals that would introduce a retail sales tax, VAT, business transfer tax, flat tax, or X-tax into the federal tax system, and indicate how well they achieve policy objectives and avoid policy shortcomings.

Retail Sales Tax

A retail sales tax collects the entire consumption tax from retail sellers. This is the form of tax imposed by most states and by many local governments.

The most recent version of the proposal for a national retail sales tax for the United States is the Fair Tax Act of 2015, introduced as H.R. 25 on January 6, 2015 by Representative Rob Woodall of Georgia with 71 cosponsors.[9] The bill would repeal the individual and corporate income taxes, payroll taxes, and the estate and gift taxes. Families would receive sales tax rebates based on family size and income. The rate is set at 23 percent in 2017 and would be adjusted in future years.

Few countries (and no developed countries) impose a national retail sales tax, and the rate required for revenue neutrality in this proposal would be very high (much above the proposed 23 percent for 2017).[10] This combination of an unproven national-level sales tax with a high rate would carry large risks of economic dislocations and unintended consequences. Evasion would be a serious problem because all of the tax is collected at the retail level. And there would likely be a substantial rise in the price level. In addition, even with the rebate and a broad base, a sales tax would be far less progressive than the taxes repealed under the proposal.[11]

VAT

Senator Ben Cardin introduced the Progressive Consumption Tax Act (S. 3005) on December 11, 2014. The bill is closely modeled on a proposal developed by Professor Michael Graetz, now at Columbia Law School.[12] Cardin's bill would use the revenue from a broad-based credit-invoice VAT with a rate of 10 percent to reduce individual and corporate income tax rates, create a large family allowance, and replace the EITC and child tax credit with new rebates.

The Cardin/Graetz proposal retains the current income taxes and other federal taxes, so it carries less risk of economic dislocations and unintended consequences than the Fair Tax. But the changes are still quite large and the VAT rate is relatively high (it is

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[9] The proposal was also introduced on January 13, 2015 as S. 155 by Senator Jerry Moran of Kansas.
[10] See Gale (2005) for computation of the rate for an earlier version of this proposal.
[11] Toder, Nunns and Rosenberg (2011) show that the distribution of a broad-based consumption tax with a rebate is roughly proportional for the top two income quintiles (and within the top quintile). In contrast, the distribution of current federal taxes is highly progressive over the entire income distribution (see, for example, Table T15-0039 at http://www.taxpolicycenter.org/numbers/displayatab.cfm?Docid=4213&DocTypeID=2).
[12] See Graetz (2010) and the analysis of a version of his proposal in Toder, Nunns and Rosenberg (2012b).

12.9 percent in the latest Graetz version of the proposal).[13] The Fed would likely accommodate this VAT by allowing the price level to rise. The proposed rebates would require some form of reporting by lower-income households, so their compliance burdens might not be altered much, even though they would no longer file an income tax return. Like our proposal, all spending by governments and nonprofits are included in the base of the value-added tax. The Cardin/Graetz proposal is also progressive, but less so than our proposal.

Business Transfer Tax

A business transfer tax is also referred to as a "subtraction method" VAT. It is structured like a credit-invoice VAT, except purchases are subtracted from sales receipts and tax is computed on the net amount, rather than getting a credit for the tax on purchases from other businesses. Subtraction method and credit-invoice VATs have identical tax bases (except for border adjustability) if there are no exemptions from the tax base and there is only one tax rate.

The most recent proposal to enact this form of consumption tax was made by Republican presidential candidate Senator Ted Cruz.[14] Earlier proposals were made by Senators Boren and Danforth and by Representative Gibbons.[15] The Cruz proposal would use revenues from a 16 percent subtraction method VAT to reduce individual income tax rates to 10 percent and to repeal the corporate income tax, the payroll taxes for Social Security and Medicare, and the estate and gift taxes.[16] The Boren-Danforth proposal would have used the revenue from a 14.5 percent business transfer tax to replace the corporate income tax, the individual income tax on undistributed profits of pass-through entities, and half the Social Security tax. The Gibbons proposal would have used the revenue from a 20 percent business transfer tax and a "burden assessment" on high-income individuals to replace the individual and corporate income taxes and the Social Security and Medicare payroll taxes, and to provide rebates to low-income individuals.[17]

In addition to being rather far-reaching proposals with attendant risk of economic dislocations and unintended consequences, these proposals have relatively high tax rates that might prompt accommodation by the Fed and a higher price level. The Cruz proposal would reduce taxes at all income levels, but disproportionately for high-income

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[13] See Nunns and Rosenberg (2013).
[14] See Cruz Campaign (2015).
[15] The proposal from Senators Boren and Danforth was S. 2160, the Comprehensive Tax Restructuring and Simplification Act of 1994; Representative Gibbons' proposal was H.R. 4050, Revenue Restructuring Act of 1996.
[16] The proposal would lose significant revenue; see Rosenberg, Burman, Nunns and Berger (2016).
[17] See Grinberg (2009) for a more detailed description of the Boren-Danforth, Gibbons, and other subtraction method VAT proposals.

households. The Gibbons proposal was intended to be distributionally neutral, but it is unlikely that the Boren-Danforth proposal would be without further changes (such as an increase in top individual income tax rates). The greatest policy shortcoming of these proposals, though, may be that the subtraction method would foster base erosion, which would result in uneven price changes at the retail level.[18]

In addition, it is not at all clear whether the business transfer tax, or the flat tax and X-tax discussed below, are border adjustable under international law, so adopting one of these taxes could embroil the United States in a protracted international trade disputes. Without border adjustability, these taxes are "origin based," with tax fully applied to exports and no tax on imports. One argument in favor of an origin based tax is that it taxes nonresidents on their U.S. investments.[19] This is generally true only if the price level rises (which would not be the case under our proposal), or if nonresidents held only U.S. equities, whereas most of their holdings are debt.[20] Further, foreign holdings of U.S. residents would never be subject to an origin-based tax, so very wealthy U.S. residents could enjoy tax-free consumption for multiple generations. An origin-based tax would also encourage businesses to avoid tax by shifting profits to foreign affiliates by overcharging for exports ("transfer pricing"). Combating transfer pricing would entail substantial administrative costs.

Flat Tax

The flat tax has the same base as a business transfer tax (with no border adjustments), but splits the base into a wage portion, which is collected from households, and the remaining portion (employee fringe benefits and business cash flow), which is assigned to businesses. The same ("flat") rate applies to the household and business portions of the tax, but households are allowed an exemption against wages.

The flat tax was originally proposed by Robert E. Hall and Alvin Rabushka as a replacement for the individual and corporate income taxes.[21] The most recent flat tax proposal was introduced by Senator Richard Shelby on April 14, 2015 as S. 929, the "Simplified, Manageable and Responsible Tax Act." Shelby's SMART Act is modeled

[18] See the examples in Toder and Rosenberg (2010) that illustrate these differential price effects.
[19] See, for example, the discussion in Carroll and Viard (2012).
[20] Price level effects would occur only through changes in monetary policy, and it is unclear whether the Fed would change its monetary policies in response to this type of proposal. With no change in the price level, only equity investments would be affected by the introduction of a broad-based consumption tax, and then only to the extent that transition rules or other tax policies did not remove the effect of the new consumption tax on old capital. (The Cruz proposal, for example, includes extensive transition relief.)
[21] See Hall and Rabushka (1985).

closely on the Hall-Rabushka proposal, but with a rate of 17 percent rather than 19 percent.

A policy advantage of the flat tax is that the base includes all spending by governments and nonprofit organizations. But the flat tax has many of the same policy shortcomings as the business transfer tax. It is a far reaching proposal that risks economic dislocations and unintended consequences, and its base would foster special exemptions and credits at both the household and business levels. Although the household exemption introduces an element of progressivity into the flat tax, the proposal would be a quite regressive change to the federal tax system. Further, as an origin-based tax it would encourage tax evasion through transfer pricing.

X-Tax

The X-tax has the same split base as the flat tax, but introduces graduated rates for the household portion of the tax. The rate on the business portion would be the same as the top household rate.

The X-tax was originally proposed by David Bradford as a way to address the regressivity of replacing the income taxes with a flat tax.[22] A variant of the Bradford X-tax was one of the proposals made in 2005 by the President's Advisory Panel on Federal Tax Reform, and another variant was proposed in Carroll and Viard (2012). The most recent variants were proposed by Republican presidential candidates Jeb Bush and Senator Marco Rubio.[23]

The X-tax can be made to be as progressive as the current income taxes throughout most of the income distribution, but would not be as progressive for the highest income households.[24] Otherwise, the X-tax has the same basic policy shortcomings as the flat tax.

[22] Bradford (1986).
[23] See Cogan, Feldstein, Hubbard, and Warsh (2015), Lee and Rubio (2015) and Rubio Campaign (2015).
[24] See, for example, the discussion in Chapter 3 of Carroll and Viard (2012). Both the Bush and Rubio X-tax proposals would significantly reduce revenues, cutting tax at all income levels but disproportionately for high-income households (see Burman, et al., 2015 and Maag, et al. 2016).

DETAILED DESCRIPTION OF THE PROPOSAL

Comparison of the Employer Payroll Tax and GST Bases

A business pays GST on its receipts, but is allowed a credit for the GST included in its purchases. Because the same GST rate applies to receipts and purchases, the GST base for each business is effectively the difference between its receipts and purchases.[25] This difference is what a business has available for payments to labor and capital – compensation of labor and business cash flow. The employer payroll tax base includes most, but not all, forms of labor compensation and excludes most, but not all, business cash flow. This section explains the overlaps and differences between the two tax bases.

The base of the Social Security and Medicare payroll tax for employees (FICA) is wages. The FICA base excludes compensation of employees in the form of employer contributions to health insurance, retirement plans, and most other employee benefits. Further, although the base for the Medicare (HI) portion of the payroll tax rate covers virtually all wages, the base for the Social Security and disability (OASDI) portion of the rate excludes wages above a cap (which is $118,500 in 2016). The payroll tax rate is therefore not uniform across the entire base. The GST base includes all fringe benefits as well as all wages, and the entire base is taxed at a single rate. The broader taxation of compensation under the GST would apply to all employees, including all employees of governments and nonprofits.[26]

Although compensation of employees would be taxed more broadly under the GST than under the employer payroll tax, the GST itself would be excluded from the amount of employees' compensation that is subject to employee payroll and income taxes, just as the current employer payroll tax is excluded from the bases of these taxes. Further, the proposal would leave the employee portion of the payroll tax unchanged, so the current base, including the OASDI wage cap, and current rates would continue in place and the employee portion would continue to be included in the income tax base.

Self-employed workers and active partners in a partnership pay the current payroll tax in the form of SECA, at rates equal to the combined employer and employee OASDI plus HI rates, including an adjustment that was intended to be comparable to the exclusion of the employer payroll tax from wages. The SECA base is generally the same as the amount of income from self-employment and active participation in a partnership reported for income tax purposes, which includes returns to both labor and capital.

[25] Note that all of the broad-based consumption taxes discussed above effectively start with this same base.
[26] The wages and fringe benefits of state and local government employees who are currently exempt from the payroll tax would be included in the GST base under the proposal.

However, the labor component of the SECA base differs from the labor component of the income tax base by including nearly all fringe benefits or their equivalent. Because fringe benefits are included, the labor component of the current SECA base is conceptually quite close to the labor component of the GST base. However, a substantial share of the compensation of labor from pass-through entities and small C corporations is excluded from the SECA (or FICA) base through the recharacterization of labor earnings as capital income and the netting of negative capital income against labor compensation.[27] Under the proposal, all compensation of labor from all businesses, regardless of legal form, would be included in the GST base, and the GST rate would apply uniformly to the entire base.

Appendix Table A-1 shows in detail how each form of employee compensation is taxed under FICA and SECA, and how it would be taxed under the proposal.

The capital component of the GST base – business cash flow – excludes financial income,[28] effectively deducts ("expenses") investment goods (tangible and intangible), and includes (does not allow a deduction for) interest expense.[29] The capital component of the SECA base is essentially business cash flow for most sole proprietorships and many partnerships. The SECA base excludes interest, dividends, capital gains (except on inventory) and other financial income unless it is generated by firms engaged in financial services. Investment in equipment (up to a limit) is expensed under section 179, and additional expensing is currently allowed under the "bonus depreciation" rules. Investment in research and development, advertising, and certain other intangibles can also be expensed. Further, most sole proprietorships and partnerships have low levels of debt and interest expense.[30] However, the capital component of the SECA base can deviate from business cash flow in four ways: (1) some investment (particularly inventory and structures) is not fully expensed for SECA purposes; (2) the SECA base includes some financial income; (3) the SECA base allows deductions (in particular, for depreciation and interest expense) not deducted in computing business cash flow; and (4) some losses are not allowed (and cannot be carried over) for SECA purposes.

Most business cash flow is earned by corporations and by partnerships in a form not attributable to active partners, so is not subject to SECA. For these businesses, the GST base would be broader than the employer payroll tax base by the inclusion of business cash flow. Similarly, for the commercial-type activities of governments and nonprofit organizations the GST base would be broader because of the inclusion of business cash flow.

[27] See Bull and Burnham (2008), Burnham (2012), Taylor (2012) and Hennig, et al. (2013).
[28] The GST would have a standard "R" (real) base, so exclude financial income and financial transactions.
[29] The equivalent of expensing is achieved through allowance of a credit for the tax on investment goods.
[30] Real estate investors, who often carry mortgage debt, are the main exception.

In summary, the GST base is broader than the base of the employer payroll tax base due to the:

1. Inclusion of fringe benefits and other excluded forms of labor compensation;

2. Wages above the OASDI cap are not excluded from a portion of the rate; and

3. Inclusion of all business cash flow.

For simplicity, the GST base would also be used for the "employee" portion of SECA for sole-proprietors, and (with certain adjustments) their income tax base.[31]

The GST Base

The starting point for estimating the size of the GST base is total consumption as defined in the National Income and Product Accounts (NIPA). Several adjustments are made to NIPA consumption for administrative and policy reasons including, most importantly, how the consumption of housing is measured. The NIPA measure of housing consumption includes the imputed rental value of owner-occupied housing, as if homeowners were their own landlords and paid rent. As a practical matter, imputed rent could not be measured annually for each homeowner, and taxing it would require all homeowners to file a GST return. To avoid these administrative difficulties, imputed rents are excluded from the GST base. Unless rents from tenant-occupied housing are also excluded, there would be differential tax treatment of owner- and tenant-occupied housing which would appear unfair and necessitate adjustments whenever a housing unit changed status between owner- and tenant-occupancy. Tenant-occupied housing rents are therefore also excluded from the GST base. However, business receipts from the sale of new housing and improvements made to existing housing, which are not included in NIPA consumption, are included in the GST base. The inclusion of these receipts in the GST base has the effect of taxing the rental value of all new housing and all future improvements to existing housing.[32]

Other adjustment to the NIPA measure of consumption:[33]

- <u>Net foreign travel and expenditures</u>. Spending abroad by U.S. residents is excluded from the GST base, whereas spending in the U.S. by nonresidents is included.

[31] The main adjustments required are to add back investment income and subtract interest expense. Fringe benefits that are currently exclusions (rather than deductions) would also be subtracted.
[32] This is the "pre-payment" method of taxing housing. All other consumer durables are effectively taxed under the pre-payment method, as are capital goods used by governments and nonprofits.
[33] For a detailed description of these adjustments and additions, see Toder, Nunns and Rosenberg (2012).

- Sales and excise taxes. These are excluded from the GST base to avoid cascading of tax.

- Noncompliance. It is difficult to predict the level of noncompliance with the GST. We simply assume it would be 15 percent of household consumption, about the same level of noncompliance as under the current federal tax system.

We also include in the GST base the compensation of labor and purchases from business used in the non-commercial activities of governments and nonprofit organizations. We include this spending for three reasons: first, this spending is intended to meet households' needs, just as spending on private goods and services serves these needs; second, there may be competing private suppliers for some of these goods and services (e.g., private security services) who are subject to the GST and should not be put at a competitive disadvantage; and third, if this spending was excluded from the GST base the true cost of production by governments and nonprofit organizations would be understated. It is important to note that the employer payroll tax currently applies to the wages paid by governments and nonprofit organizations, as well as to the wages paid by businesses that sell to them; including this spending in the GST base is not a departure from current law. In addition, modern value-added taxes (most notably the GSTs in Australia and New Zealand) include this spending, and, as discussed below, several of the proposed federal consumption taxes would also include this spending.

The estimated GST base in 2015 with these adjustments and additions is shown in Table 2. Several features of the GST base should be noted. First, financial services provided without direct charge to households are included in the base, even though they are excluded from most consumption tax bases. We believe these services can be effectively taxed, as they are under the VATs in several countries or they could be taxed using alternative methods.[34] Second, although VATs typically allow businesses with receipts below a specified amount to be excluded from collecting the tax in order to reduce their compliance burden, we do not exclude any businesses from the GST.[35] A small business exclusion could reduce the GST base, which would reduce the amount of revenue raised using the 7.65 percent rate, or necessitate a somewhat higher deficit

[34] See Schenk (2009) and Merrill and Edwards (1996).

[35] Some proposals for a U.S. national consumption tax, such as Graetz (2010), would also allow a small business exemption. Note, however, that even excluded small businesses would have some compliance burden in order to determine their initial and ongoing eligibility for exclusion and the desirability of being outside the tax system (for example, they might lose larger business customers that prefer dealing only with firms in the tax system).

TABLE 2

The Estimated GST Tax Base in 2015

	Level ($ Billions)	Percent of Consumption	Percent of GDP
NIPA Consumption	12,555.7	100.0	69.0
Less: Imputed rent on owner-occupied housing	1,383.0	11.0	7.6
Less: Rental of tenant-occupied housing	499.3	4.0	2.7
Plus: New housing purchases	454.3	3.6	2.5
Plus: Improvements to existing housing	412.2	3.3	2.3
Equals: Net housing adjustment	-1,015.8	-8.1	-5.6
Less: Net foreign travel and expenditures abroad	-23.1	-0.2	-0.1
Less: Sales and excise taxes	417.9	3.3	2.3
Equals: Household Consumption in the Base	11,145.1	88.8	61.2
Plus: Federal purchases of goods and services[1]	703.9	5.6	3.9
Plus: Federal employee compensation[2]	491.7	3.9	2.7
Equals: Federal spending in the base	1,195.6	9.5	6.6
Plus: State and local purchases of goods and services[1]	574.8	4.6	3.2
Plus: State and local employee compensation[2]	1,318.2	10.5	7.2
Equals: State and local spending in the base	1,893.0	15.1	10.4
Less: Adjustment for noncompliance	1,503.5	12.0	8.3
Equals: GST Base	12,730.2	101.4	69.9
ADDENDUM:			
Gross Domestic Product (GDP)	18,203.6	145.0	100.0

Sources: U. S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (NIPA), CBO (2015a), and TPC estimates.

[1] Excludes purchases for activities provided for a fee or charge that are included in NIPA consumption.

[2] Excludes employee compensation to produce goods and services provided for a fee or charge that are included in NIPA consumption.

neutral rate than 4.1 percent.[36] Further, nearly all small businesses would remain subject to the employee portion of FICA or SECA. For sole proprietors, the proposal uses the GST base for both the employee portion of SECA and (with a few adjustments) the income tax; an exclusion from the GST could actually increase their compliance burdens. Third, the

[36] Brashares, Knittel, Silverstein and Yuskavage (2014) estimate that a stand-alone U.S. VAT with a threshold of $200,000 (which would exclude 90 percent of all firms) would have reduced revenues from a 10 percent VAT by $64 billion in 2007, assuming firms below the threshold were allowed to register (most have negative value added) and that some firms above the threshold would reduce sales to avoid VAT liability.

current U.S. trade deficit increases the size of the GST base because, like state and local retail sales taxes and the value-added taxes imposed throughout the world, the GST is designed to tax the consumption of residents. This design requires taxing on a "destination basis" with border adjustments that apply tax to imports and remove tax from exports.[37] In contrast, the "origin basis" flat tax and X-tax are designed to tax the consumption of goods and services produced within the United States, regardless of whether the consumers are residents or nonresidents.

EFFECTS OF THE PROPOSAL

Federal Revenue and Spending

The total pre-tax compensation of labor and the total pre-tax cash flow of businesses are assumed to be unchanged by the proposal.[38] If the GST rate was set at the current employer OASDI plus HI payroll tax rate of 7.65 percent, the GST would raise revenue because its base is broader than the base of the replaced employer payroll tax. With total pre-tax compensation unchanged, this increase in tax on labor compensation would result in a reduction in wages and fringe benefits. Similarly, setting the GST rate below 7.65 percent would result in an increase in wages and fringe benefits for workers with wages below or above but near the OASDI cap.[39] Business cash flow net of tax must likewise be reduced by the additional tax imposed on it by the GST. The effect of these changes in wages, fringe benefits, and net business cash flow on the GST base as well as the bases of the federal individual income, corporate income, and employee payroll taxes are taken into account in our revenue estimates for the proposal.

Federal spending can also be affected by the changes in wages, fringe benefits, and net business cash flow. There would be no effect on spending for noncommercial activities, because wages and fringe benefits of government workers would adjust to offset the change in tax, and likewise the prices paid for purchases from businesses (inclusive of GST) would be unchanged. The same adjustments would leave spending (and total revenues) from commercial-type activities unchanged. But any change in wages could affect the computation of benefits for future beneficiaries of Social Security and other cash transfer payments that are directly or indirectly based on wages. We assume that the computation of Social Security and other cash transfer benefits would be

[37] In practice, state retail sales taxes fail to collect tax on many imports (internet and mail order sales), but this failure is not by design.
[38] This assumption is consistent with the assumption followed by the federal agencies responsible for estimating federal revenues – Treasury's Office of Tax Analysis and the Congressional Joint Committee on Taxation – that real GDP and the overall price level remain constant in response to changes in tax law.
[39] However, this effect would be at least partially offset by the inclusion of fringe benefits.

adjusted over time to offset the aggregate effect of any wage changes, so there would be no change in spending on benefits. In addition, we assume that the federal government adjusts grants to state and local governments to offset the effect of changes in wages, fringe benefits, and net business cash flow on state and local budgets, such as reductions (or increases) in their income tax receipts.[40]

Table 3 shows the federal revenue and spending effects of the proposal in 2015. These effects are computed using both illustrative GST rates, the current 7.65 percent OASDHI rate and the deficit neutral rate of 4.1 percent. These rates are, like the current employer payroll tax rate, "tax exclusive" so apply to a base that excludes the tax. The estimates are for calendar year 2015 liabilities, assuming the proposal is fully phased in (i.e., as if it had been in effect for an extended period of time).[41]

The current employer payroll tax is estimated to have raised $516 billion in 2015. Removing the OASDI wage cap would have increased revenues by close to $64 billion. Reducing the rate from 7.65 percent to 4.1 percent would then have reduced revenues by $196 billion. The inclusion of fringe benefits would have had a relatively small impact, increasing revenue by $38 billion with a rate of 7.65 percent and by $29 billion with a rate of 4.1 percent. Including business cash flow and other net differences would have increased revenues by a significant amount, $193 billion with a 7.65 percent rate and $98 billion with a 4.1 percent rate. Any change in federal spending would have been due only to adjustment of federal grants to state and local governments, which is quite small, and negative when the GST rate is 4.1 percent because overall state and local budget balances would otherwise have actually improved. In total, retaining the current 7.65 percent rate would have increased revenue by $295 billion and reduced the deficit by $287 billion.

Revenues from the current employer payroll tax, and the revenue effects of reducing the rate, removal of the OASDI wage cap, and the inclusion of fringe benefits were estimated using TPC's microsimulation model. The revenue effect of including business cash flow and other net adjustment to the base was estimated as the difference between the sum of the other listed amounts and revenue from the GST. To estimate GST revenues, we simply applied each rate to the effective GST base shown in Table 2, and then reduced these amounts by the associated offsets (i.e., the reduction in income and payroll tax revenues due to reductions in their bases). The individual income and

[40] For a detailed discussion of how a federal consumption tax could affect state and local government budgets see Nunns and Toder (2016).
[41] For differences between the short-run and long-run effects of a consumption tax, see Toder, Nunns and Rosenberg (2011).

TABLE 3

Revenue and Spending Effects of Proposal with Alternative GST Rates in 2015

Billions of dollars

	GST Rate	
	7.65%	4.10%
Change in Federal Revenues:		
1. Current Employer Payroll Tax[1]	516.3	516.3
2. Removal of OASDI Wage Cap	63.7	63.7
3. Reduce Rate to 4.1%	N/A	-195.7
4. Inclusion of Fringe Benefits[2]	38.0	29.0
5. Inclusion of Business Cash Flow and Other Net Adjustments[3]	192.9	98.1
6. Equals: GST (after offsets)[4]	810.9	511.4
Memo: Income Tax Offset[5]	-72.7	10.9
Memo: Employee Payroll Tax Offset[5]	-2.4	14.6
7. Change in Federal Revenues (line 6 minus line 1)	294.6	-4.9
Change in Federal Spending:		
8. Cash Transfer Payments	0.0	0.0
9. Grants to State and Local Governments	7.3	-4.9
10. Equals: Net Change in Federal Spending	7.3	-4.9
11. Change in Federal Deficit (Line 10 minus line 7)	-287.3	0.0

Sources: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-2) and TPC estimates.

[1] Includes both the employer portion of FICA and half of SECA.

[2] The small amount of fringe benefits that are currently excluded from the SECA base cannot be separately identified so are excluded from these estimates.

[3] The estimate for business cash flow and other net adjustments is computed as a residual rather than directly, and omits business cash flow currently taxed under SECA (which is included in Line 1).

[4] The pre-offset GST was computed by applying the appropriate rate to the effective GST tax base from Table 3.

[5] The reduction in income and employee payroll tax revenues due to the change in wages and capital income that result from replacing the base of the employer payroll tax with the broader GST base. Offset amounts are included in the estimates for lines 2-5.

payroll tax offsets were estimated using TPC's microsimulation model, while the corporate income tax offset and spending effects were estimated off-model.

Distribution

The distributional effects of the proposal were estimated using TPC's microsimulation model at 2015 income levels, but assuming that the effects of the proposal are fully phased in. The incidence of the employer payroll tax and the effects on compensation of taxing additional compensation and changing the tax rate applicable to some or all wages under the GST are assumed to be on workers in proportion to their earnings subject to tax. The burden of the GST is distributed to sources of income, with offsets, as follows.[42]

- Labor compensation. Wages and fringe benefits (including the comparable compensation of the self-employed) are assumed to bear a proportionate burden of the GST.[43]

- Capital income. The proposed GST allows recovery of tax on business purchases of investment goods and does not require capitalization of self-constructed investment goods (such as research and development). The removal of investment spending from the tax bases makes the present value of tax on the "normal" return to investment, the time-value of money and inflationary gains, zero. But above-normal ("supernormal") returns to capital – economic rents, monopoly profits, and returns to entrepreneurial effort that are captured as profits rather than wages – are taxed. We assume that supernormal returns bear a proportionate burden of the GST.

- Cash transfer income. As discussed above, we assume that benefit calculations would be adjusted over time so that cash transfer income would not change in the aggregate and the distribution of benefits would also be unchanged.

- Relative prices. If consumption items were excluded from the GST base, we would take into account the effect of these exclusions on the relative prices of excluded and included items. The proposed GST base is comprehensive, however, so there are no differential price effects.

- Government spending offset. The only change in federal spending is due to the adjustment of grants to state and local governments to offset the effect of changes in wages and other income on their revenues and spending. We assume that these adjustments to federal grants and the changes in state and local revenues and spending are distributionally neutral.

- Income and payroll tax offsets. The effect of the proposal on federal individual and corporate income and employee payroll tax revenues, discussed above, is included in the distributional analysis. Individual income tax offsets are distributed directly to individual income taxpayers with a tax change, employee payroll tax changes to workers with a tax change, and the corporate income tax offsets according to

[42] For a detailed description of TPC's methodology, see Toder, Nunns and Rosenberg (2011).
[43] For greater comparability between the distribution of the current employer payroll tax and the additional compensation taxed under the GST, we depart somewhat from the methodology described in Toder, Nunns and Rosenberg (2011) by not deducting retirement contributions from wages and excluding pension benefits in the distribution of the GST.

TPC's standard long-run incidence assumptions.[44] Offsets are included in the distribution of associated items of the base.

Table 4 shows the distributional effects of the proposal in 2015 with two alternative tax rates: the current employer OASDI plus HI payroll tax rate of 7.65 percent and the rate that would make the proposal deficit neutral, 4.1 percent.

Some of the revenue the proposal would raise if the rate was set at 7.65 percent would be from inclusion of fringe benefits in the base, which would represent an increased tax burden on many middle-income and the majority of high-income workers. However, most of the additional revenue would result from having a flat rate (i.e., removal of the OASDI wage cap) and the inclusion of all business cash flow in the GST base (see Table 3). These revenue increases would primarily represent increased tax burdens on high-income households. If, alternatively, the GST rate was set at the deficit neutral rate of 4.1 percent, the effects of the broader GST base would still shift the tax burden to high-income households. All income groups would have a tax increase under the current 7.65 percent rate, but that increase would rise with income at all levels. Under the 4.1 percent rate, all income groups except the top 5 percent would have tax cuts that declined with income, and the top 5 percent would have tax increases that increased with income. So the proposal is quite progressive with either rate.

In addition to shifting the distribution of tax burdens across income groups, the proposal would also affect the distribution of tax burdens among taxpayers within the same income group. Broadening the employer payroll tax base would remove horizontal inequities due to differential taxation of components of labor compensation and to differential taxation of business cash flow.

[44] See Nunns (2012).

TABLE 4

Distributional Analysis of the Proposal with Alternative GST Tax Rates in 2015

Average tax rates (taxes as a percent of ECI)

Expanded Cash Income (ECI) Percentile	Taxes Under Current Law	Changes Due to Broader Base of GST[1] (percentage points): Flat Rate[2]	Fringe Benefits	Business Cash Flow and Other[3]	Total	Taxes Under the Proposal
			GST Rate of 7.65%			
Lowest Quintile	3.2	0.1	0.2	0.8	1.1	4.3
Second Quintile	8.5	0.1	0.3	1.1	1.5	10.0
Middle Quintile	14.1	0.2	0.3	1.3	1.8	15.9
Fourth Quintile	17.3	0.2	0.4	1.4	1.9	19.1
Top Quintile	25.6	0.7	0.2	1.4	2.2	27.9
All	19.8	0.4	0.3	1.3	2.0	21.8
Addendum						
80-90	19.3	0.2	0.3	1.5	2.0	21.4
90-95	21.1	0.4	0.3	1.4	2.0	23.2
95-99	24.3	0.8	0.2	1.4	2.4	26.7
Top 1 Percent	33.8	1.1	0.0	1.3	2.4	36.2
Top 0.1 Percent	36.1	1.0	0.0	1.4	2.4	38.5
			GST Rate of 4.1%			
Lowest Quintile	3.2	-1.3	0.2	0.4	-0.8	2.4
Second Quintile	8.5	-1.3	0.2	0.5	-0.5	8.0
Middle Quintile	14.1	-1.3	0.3	0.6	-0.4	13.7
Fourth Quintile	17.3	-1.3	0.3	0.7	-0.3	16.9
Top Quintile	25.6	-0.5	0.2	0.7	0.4	26.0
All	19.8	-0.9	0.2	0.7	0.0	19.8
Addendum						
80-90	19.3	-1.3	0.3	0.8	-0.3	19.1
90-95	21.1	-1.0	0.2	0.7	0.0	21.1
95-99	24.3	-0.4	0.2	0.7	0.5	24.8
Top 1 Percent	33.8	0.4	0.0	0.7	1.1	34.9
Top 0.1 Percent	36.1	0.4	0.0	0.8	1.2	37.3

Sources: U. S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (NIPA), CBO (2013), and TPC estimates.

[1] The effects of each portion of the broader GST base includes associated income and employee payroll tax offsets.

[2] Includes removal of the OASDI wage cap for both rate alternatives, and for the deficit-neutral alternative also reduction of the rate to 4.1%.

[3] Includes all other differences between the distribution of the employer payroll tax and the GST.

Efficiency

The proposal would improve economic efficiency by removing the following distortions in the current employer payroll tax:

- The incentive to receive labor compensation in the form of nontaxable fringe benefits;
- The incentive to recharacterize labor income as capital income in order to avoid payroll tax;
- Incentives to choose a particular legal form for a business enterprise; and
- The incentive to be (or not be) an independent contractor rather than an employee.

Wages vs. Fringe Benefits

Employer-provided fringe benefits are generally excluded from the payroll tax base, as are certain benefits (e.g., public transportation) that employees purchase through their employers (see Appendix Table A-1). Wages are generally subject to payroll tax, but the employer portion of the tax is deducted in computing wages. Compensation paid to employees in the form of fringe benefits or wages is generally a deductible business expense for businesses. So $100 of compensation in the form of a fringe benefit costs the employer $100 and purchases the employee $100 of consumption goods because it is not subject to employer or employee payroll tax (or to individual income tax). But compensation in the form of wages that costs the employer $100 only provides a worker below the OASDI cap $92.89 of wages dues to the employer payroll tax of $7.11, and is subject to another $7.11 of employee payroll tax; the worker only receives $85.78 (before income tax) that can be used to purchase consumption goods, or 14.22 percent less than provided by a fringe benefit.

The differential in payroll tax treatment of fringe benefits and wages distorts the mix of compensation and encourages workers to purchase payroll tax-favored goods through their employers, rather than directly. Under the proposal, if the consumption tax rate is set at 7.65 percent compensation in any form that costs an employer $100 will provide an employee $92.89 of consumption goods (prior to employee payroll and individual income tax). The proposal therefore reduces the payroll tax differential between fringe benefits and wages from 14.22 percent to 7.65 percent.

Labor income vs. capital income

Business owners who provide labor services to their business may be able to reduce their payroll tax liability by recharacterizing compensation for their services as capital income. Owners of Subchapter S corporations may simply pay themselves a low salary, which is subject to payroll tax (FICA), and take the remainder of their share of business income as a distribution, which is not subject to any payroll tax. Although understating wages may be challenged by IRS, it is difficult and expensive for IRS to establish "reasonable compensation" for any particular Subchapter S owner/employee, so such understatement of wages may be widespread.[45] Similarly, owner/employees of small C corporations can pay themselves a low wage and reduce their overall taxes if their remaining share of profit is subject to a low rate under the graduated corporate income tax rate structure and the favorable income tax rate on profits distributed as a dividend is much below their ordinary income tax rate.[46]

Limited partners may also be able to understate the portion of their share of partnership income due to their provision of labor services that is subject to payroll tax. General partners may also be limited partners, so be able to recharacterize their labor compensation as distributions not subject to payroll tax. Even more flexibility to avoid payroll tax may be available to owner/workers of limited liability corporations (LLCs), which have no "general" or "limited" partners under state law even though they are generally taxed as partnerships under the federal income tax.

Payroll tax can also be avoided by electing a different tax status through "check the box" (e.g., an LLC might elect to be taxed as a Subchapter S corporation) or the use of multiple entities (e.g., a general partner might hold her partnership interest in a Subchapter S corporation, and split partnership income that would be subject to payroll tax between a low wage subject to FICA and the remainder as capital income free of payroll tax).

All of these methods of reducing payroll tax liabilities of owner/workers involve, at a minimum, some deadweight loss due to tax planning. They also increase administrative costs for IRS. Under the proposal, all compensation and cash flow of business owners would be taxed at the same rate under the GST, so the incentive to avoid the current employer portion of the payroll tax by these methods would be removed. The incentive would remain, however, under the employee payroll tax.

Choice of legal form

[45] See Burnham (2012) and Taylor (2012).
[46] See Sullivan (2011) for examples.

The choice of legal form in which a business is conducted may be altered because, as indicated in the preceding, the form can affect the ease of recharacterizing labor income as capital income. The choice of legal form may also be affected by the potential inclusion of capital income and losses in the SECA base. Sole proprietor or partnership form may therefore be chosen at the startup of a business, when capital losses can offset labor income of an owner/worker from the business, but may not be chosen once a business becomes profitable and capital income (the profits) might be included in the SECA base.

The proposed GST would reduce the incentive to make the choice of legal form turn on tax considerations by removing the differentials in taxation due to the employer payroll tax.

Employee vs. independent contractor

The current payroll tax distorts this choice in two ways. One is the differential treatment of fringe benefits, which are generally excluded from the FICA base for employees, but are generally included in the SECA base for independent contractors (who are taxed as sole proprietors). This more favorable payroll tax treatment of employees would not be present in the proposed GST, but would continue under the employee payroll tax.

The other distortion is due to the errors in the formula for computing the deduction for the employer-equivalent portion of SECA.[47] The formula was intended to make the computation of SECA equivalent to the computation of FICA by adjusting for the tax exclusive nature of the employer share, but fails to achieve equivalence due to three errors: (1) it uses a single rate of deduction, the employer OASDI plus HI rate of 7.65 percent, even though wages above the OASDI cap are taxed under the employer share only at the 1.45 percent HI rate; (2) the employer rates are tax exclusive but the SECA base is tax inclusive, so the rates need to be restated on a tax inclusive basis to 7.65%/1.0765 = 7.11% and 1.45%/1.0145 = 1.43%; and (3) the OASDI wage cap, which for the employer share is stated on a tax exclusive basis, needs to be restated on a tax inclusive basis by multiplying it by 1.0765.[48] The effect of all three of these errors is to reduce SECA liabilities below corresponding FICA liabilities for workers, especially those with otherwise taxable compensation above the OASDI wage cap, favoring independent contractor status. The proposal eliminates this distortion by imposing a single tax exclusive GST rate that effectively applies to all employee compensation in place of the current employer payroll tax.

[47] See JCT (2005) and Nunns (2014) for a description and analysis of these errors and how they could be corrected under the current structure of SECA.
[48] The OASDI wage cap is currently $118,500 so the tax inclusive cap in 2015 would be $127,565.25.

In addition to reducing or eliminating distortions in the employer payroll tax, the comprehensiveness of the proposed GST base avoids distortions present in many consumption tax proposals. There are no exclusions, which require a higher tax rate that encourages noncompliance and changes relative prices among consumption goods, distorting household consumption choices. In addition, few proposed U.S. consumption taxes would include all production of goods and services by governments and nonprofit organizations in the base.[49] Excluding these activities distorts consumption decisions between public and private goods, and may distort the mix of production between the private and public sectors.

Marginal tax rates

The proposal would affect incentives to participate in the workforce and to work more hours by changing the effective marginal tax rate (EMTR) on labor income for many workers. We used TPC's microsimulation model to estimate EMTRs on wages in 2015 under current law and the proposal with the two alternative GST rates.[50] The estimates (Table 5) show that with either GST rate EMTRs on wages would fall through the 95th percentile, with the largest reductions in the upper-middle income ranges, and rise for the top 5 percent. This pattern is the result of several effects. With a 7.65 percent rate, the inclusion of fringe benefits in the GST base reduces wages, which may reduce marginal income tax rates for affected workers. With a 4.1 percent rate, the effective GST rate on wages is lower than under the current employer payroll tax for low- and middle-income workers, and that reduction more than offsets increases in marginal income tax rates that result from increased wages. For high-income taxpayers, however, the reductions in marginal income tax rates are smaller than the increase in the marginal rate on wages under the GST due to removal of the OASDI wage cap.

The GST would also increase EMTRs on supernormal returns. As a proxy for the effect of the proposal on supernormal returns, we used TPC's microsimulation model to estimate EMTRs on capital gains in 2015.[51] The EMTRs on capital gains (bottom bank of

[49] Exceptions are the Cardin/Graetz VAT proposal, the Cruz subtraction method VAT proposal, the Hall-Rabushka/Shelby flat tax proposal, and the Bradford/Carroll and Viard X-tax proposal.
[50] To calculate EMTRs under each law, we increment wages for each worker by $1,000, compute the change in tax and divide it by $1,000, and then weight this ratio by the worker's total wages.
[51] The estimates are only proxies for various reasons. A capital gain may represent only a portion of the supernormal return generated by an asset that would be taxed under the GST, and current capital gain realizations may not reflect the timing of GST or include any supernormal return.

TABLE 5

Changes in Effective Marginal Tax Rates (EMTRs) on Wages and Capital Gains under the Proposal with Alternative GST Rates in 2015

Percent of After-Tax Income

Expanded Cash Income (ECI) Percentile	EMTRs Under Current Law	EMTRs Under the Proposal with GST Rates of:		Change in EMTRs from Current Law with GST Rates of:	
		7.65%	4.10%	7.65%	4.10%
Wages					
Lowest Quintile	18.5	18.4	15.5	-0.1	-3.0
Second Quintile	30.4	30.3	27.2	-0.1	-3.2
Middle Quintile	33.9	33.4	30.3	-0.5	-3.5
Fourth Quintile	34.0	32.5	30.1	-1.4	-3.9
Top Quintile	38.6	39.6	37.6	1.0	-1.1
All	35.2	35.2	32.8	0.0	-2.4
Addendum					
80-90	36.7	35.4	33.8	-1.3	-2.9
90-95	36.6	36.5	34.4	-0.2	-2.2
95-99	38.4	40.3	38.4	1.9	0.0
Top 1 Percent	42.7	47.0	44.3	4.3	1.6
Top 0.1 Percent	44.1	49.7	46.3	5.6	2.1
Capital Gains					
Lowest Quintile	0.4	4.9	3.4	4.4	2.9
Second Quintile	1.3	5.6	7.1	4.3	5.8
Middle Quintile	4.8	9.1	10.6	4.3	5.8
Fourth Quintile	8.3	12.5	13.8	4.2	5.5
Top Quintile	22.0	25.7	24.0	3.8	2.0
All	20.4	24.2	22.4	3.8	2.0
Addendum					
80-90	11.6	15.3	13.8	3.6	2.2
90-95	15.1	18.9	17.2	3.7	2.1
95-99	20.3	23.9	22.3	3.6	2.0
Top 1 Percent	23.0	26.7	25.1	3.7	2.1
Top 0.1 Percent	23.8	27.6	25.7	3.8	2.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-2).

Table 5) would increase at all income levels under both GST rates. In the middle income quintiles, the increases are actually larger under the 4.1 percent GST rate. Higher wages for taxpayers with capital gains in these income groups push them out of the zero rate on gains, which more than offsets the lower effective GST rate on gains.

Note that to the extent supernormal returns are simply economic rents, incentive effects are likely to be small. However, the incentives for highly talented individuals to develop new products and services that generate supernormal returns might be adversely affected.

Old capital

Initially, the taxation of business cash flow would impose the GST rate on income generated by the stock of business capital in place at the time the proposal went into effect. Because this "old" capital was never expensed under the GST and (absent transition rules) there would be no allowance for depreciation, these returns include the normal return and depreciation in addition to any supernormal returns.[52] Taxing returns to old capital could cause efficiency losses if businesses changed their investment decisions in anticipation of the proposal or similar future proposals. But taxing these returns increases the initial GST base, allowing permanently lower GST rates, so lower economic distortions, for any given revenue path.

Administrative and Compliance Burdens

Sole proprietorships represent the majority of businesses, although a relatively small share of business activity.[53] Moving from the current payroll tax base to the GST base for sole proprietors would involve several simplifications, in particular expensing of all investment including inventory and structures. In addition, we propose that the GST base serve (with a few adjustments) as the income tax base for sole proprietors. The compliance burden for sole proprietors would therefore likely not be much affected.

For other businesses (including the commercial activities of governments and nonprofits), the GST base differs in important ways from the base of the employer payroll tax, so compliance burdens would increase for these businesses. This increased compliance burden could be alleviated for at least some private businesses by allowing the cash flow component of the GST, with some adjustments, to be used as the income tax base (see next section).

Governments and nonprofits would also have increased compliance burdens on their noncommercial activities, because the base for the employee share of their payroll tax (wages) would differ from their GST tax base (total compensation of employees).

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[52] Note that the returns to the old capital of governments and nonprofits used in noncommercial activities, as well as returns to existing housing (and other consumer durables) are not taxed under the GST.

[53] Statistics of Income data indicate that nonfarm sole proprietorships represent over 70 percent of all businesses but report less than 15 percent of business net income and less than 5 percent of total business receipts.

The GST would place new administrative responsibilities on IRS and some upfront costs to implement. These additional administrative burdens on IRS might be partially offset to the extent the GST and income tax bases for sole proprietors and perhaps some other businesses were integrated.

Possible Uses of Revenue

If the GST rate was set at the current 7.65 percent OASDI plus HI payroll tax rate, as shown in Table 3 the proposal would generate $295 billion in additional revenue at 2015 income levels when fully phased in. Some or all of this revenue could be used to reform the income tax. A specific area of reform that is closely related to the proposal is the taxation of business income through the individual and corporate income taxes. Current proposals to finance a reduction in the corporate income tax rate through broadening of the business tax base would shift the business tax burden from corporations to pass-through entities. Revenues from the proposal could help finance reductions in individual income tax rates, mitigating, if not avoiding, any shift in business tax burdens across types of businesses. Rate reductions would also fully or partially neutralize the effect of the proposal on the distribution of the tax burden.

An important aspect of the proposal is the administrative foundation, as well as the revenue, it would provide to an income tax reform that would allow all, or at least "small," pass-through entities and C corporations to use the business cash flow component of the GST base, with some adjustments, for income tax purposes.[54] This reform would reduce distortions due to the income tax bias toward short-lived and debt-financed assets, and reduce compliance costs for businesses by substituting expensing for depreciation and inventory accounting. A further consideration is that the initial tax burden on old capital under the GST and a reform to use cash flow as the business income tax base would offset at least some of the windfall gains to old capital that would arise from any reduction in income tax rates.

Tax burdens on middle-income workers would increase under the proposal due to the taxation of fringe benefits if the GST tax rate was set at 7.65 percent. Income tax rate reductions could be used to offset some of this burden, but other changes might be better targeted. For example, increasing standard deduction amounts could provide a significant offset, and also help achieve simplification and other goals of individual income tax reform.

[54] See the proposal by Jeb Bush (Cogan, Feldstein, Hubbard and Warsh, 2015), Marco Rubio (Lee and Rubio, 2015 and Rubio Campaign, 2015), Auerbach (2015), and the President's Advisory Panel on Federal Tax Reform (2005) for similar proposals. Note, however, that Auerbach would tax borrowing and allow a deduction for debt repayment rather than disallowing interest payments and excluding interest income.

Revenue from the proposal might also be used for other purposes, such as to reduce future deficits, which CBO currently projects will grow faster than GDP after 2018.[55] Because future deficits are primarily driven by federal spending on health care and the payroll tax currently funds a portion of this spending, the revenue might be dedicated to health care.[56]

PRESERVING SOCIAL SECURITY AND MEDICARE ACCOUNTING

The proposal retains the employee payroll tax in its current form, so transfers to the Social Security and Medicare Trust Funds as well as Social Security wage histories and benefit calculations would all be preserved. Taxes withheld from wages for employee payroll tax purposes would continue to be withheld as under current law. Similarly, the employee share of SECA would be calculated and reported. Revenue transfers to the Trust Funds could therefore be continued as under current law by transferring to them revenues from the GST equal to the OASDI and HI components of employee FICA and SECA.[57] In addition, employee wages and self-employment earnings would continue to be reported as under current law for Social Security purposes, so wage histories and benefit calculations would be preserved.[58]

However, nominal wages could change as a result of the proposal due to shifts in the mix of compensation between wages and fringe benefits. Nominal wages could also change because the level of the GST on pre-tax wages could be more or less than the current employer FICA amount, depending on the GST rate. In addition, the SECA base for the self-employed would be altered somewhat.

Changes in wages and self-employment income affect both revenues and benefits. The effects on the (employee share) of payroll tax revenues are the payroll tax offsets shown in Table 3, which vary with the GST rate but are relatively small under either rate. Revenues to the Trust Funds could be preserved at the level they would have been without these changes in wages and self-employment income by adjusting the transfer of

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[55] CBO (2016).

[56] Burman (2009) proposes a national consumption tax with all revenues dedicated to federal health spending.

[57] These transfers would be based on aggregate employer payroll tax collections. Because there is no refund of the employer portion of FICA for OASDI taxes imposed on wages above the wage cap for workers with more than one job, to maintain current revenues the transfer to the Social Security Trust Fund from GST revenues would have to be somewhat larger than the aggregate employee portion of FICA.

[58] Note that because benefits would continue to be based on wages, there would be no direct effect on Social Security benefits from the inclusion of fringe benefits in the base of the GST. In contrast, including fringe benefits in the payroll tax base could affect Social Security benefit calculations, offsetting much of the effect on Trust Fund balances (see Smith and Toder, 2014).

GST revenues by double the estimated offset amount.[59] Likewise, Social Security benefit calculations could be adjusted (as we have assumed they would be) by a small amount to preserve the same level of aggregate benefits that would have been paid without the change in wages and self-employment income.

OTHER ISSUES

Phase in and Transition Relief

Retention of the employee payroll tax provides a straightforward means of phasing the proposal in if the current 7.65 percent OASDI plus HI rate was used for the GST. During the phase-in period, the employer payroll tax rate would phase down in steps while the GST rate would phase up by the same steps until the GST rate was fully phased in to 7.65 percent.[60] Employee payroll tax liabilities would be computed in the same manner as under current law.

Although a phase in along these lines could be relatively straightforward to implement, it would impose some compliance burdens on businesses. It might also encourage postponement of investments because the tax rate would be rising during the phase-in period, making the tax on future investment returns higher than the tax savings from expensing.

Transition rules might be considered to mitigate the impact of the burden on old capital that initially arises in the business cash flow component of the GST and the burden on existing debt that arises because interest is not deductible. The size of these transitional burdens depends on the length and structure of any phase-in period, so any transition rules should be considered jointly with any phase in of the proposal. In addition, the reduction in efficiency gains that could be realized from the taxation of old capital would need to be weighed against the equity concerns that motivate transition rules.

Negative Liabilities

GST liability would be negative in two circumstances. The GST is "destination based" so exporters would pay no tax on receipts from exports while still getting a credit for the GST included in their purchases from other businesses. Businesses with receipts primarily

[59] Doubling is necessary to reflect the effect of wage changes on what would have been the employer share of payroll taxes in addition to the effect on the employee share.
[60] With a deficit-neutral rate of 4.1 percent, the phase in would require phasing in percentage reductions in the 7.65 employer payroll tax rate and phasing in of the GST rate by the same percentages.

from exporting would generally have negative GST liabilities. The other circumstance arises when a business invests heavily. The business cash flow component of the GST base effectively expenses investment. If purchases of investment goods and other business purchases exceed business receipts, which is most likely to occur during the startup phase of a business, GST liabilities would be negative. How negative GST liabilities are treated in these circumstances, for example by allowing immediate refunds or instead requiring carryforwards (with interest), depends on administrative considerations that we do not consider here.

APPENDIX TABLE A-1

Tax Bases for the Current Payroll Tax and Proposed GST

Component of Tax Base		Current Payroll Tax: Employee Share	Current Payroll Tax: Employer Share	Proposal (Changes Highlighted): Employee Payroll Tax	Proposal (Changes Highlighted): GST
		Employee[1]			
1. Wages		Included	Included	Included	Included
2. Fringe Benefits:					
a. Employee dc contributions		Included	Included	Included	Included
b. Employer dc contributions		Excluded	Excluded	Excluded	Included
c. Employer health insurance		Excluded	Excluded	Excluded	Included
d. Child care		Excluded	Excluded	Excluded	Included
e. Other[2]		Generally excluded	Generally excluded	Generally excluded	Included
3. Tax		Included	Excluded	Included	Excluded
4. Rate:	Below OASDI cap	7.65%	7.65%	7.65%	7.65% or 4.1%
	Above OASDI cap	1.45% or 2.35%[3]	1.45%	1.45% or 2.35%[3]	7.65% or 4.1%
		Sole Proprietorships and Partnerships[4]			
1. Business Receipts:					
a. Sales of goods and services		Included	Included	Included	Included
b. Investment income[5]		Excluded	Excluded	Excluded	Excluded
2. Business Expenses:					
a. Compensation of labor services provided by sole proprietors and general partners:					
i. Wage equivalent compensation[6]		Included (not deducted)	Included (not deducted)	Included (not deducted)	Included
ii. Retirement contributions		Included (not deducted)	Included (not deducted)	Included (not deducted)	Included
iii. Health insurance		Included (not deducted)	Included (not deducted)	Included (not deducted)	Included
iv. Child care		Excluded (deducted)	Excluded (deducted)	Excluded (deducted)	Included
iv. Other[2]		Generally excluded (deducted)	Generally excluded (deducted)	Generally excluded (deducted)	Included

Component of Tax Base	Current Payroll Tax: Employee Share	Current Payroll Tax: Employer Share	Proposal (Changes Highlighted): Employee Payroll Tax	Proposal (Changes Highlighted): GST
b. Compensation of employees	Taxed under the rules for employees described above. Compensation of employees is excluded (deducted) in computing the payroll tax base of sole proprietors and partners.			
c. Purchases of goods and services from other businesses:				
i. Non-capital items	Excluded (deducted)	Excluded (deducted)	Excluded (deducted)	Excluded (deducted)
ii. §179 and bonus depreciation property, R&E, advertising[7]	Excluded (immediate deduction)	Excluded (immediate deduction)	Excluded (immediate deduction)	Excluded (all investment expensed)
iii. Inventory items[7]	Net additions included	Net additions included		Excluded (expensed)
iv. Other capital items[7]	Included but deduction for depreciation	Included but deduction for depreciation	Sole Proprietors: GST rules; General Partners: current payroll tax rules	Excluded (expensed)
3. Interest paid	Excluded (deducted)	Excluded (deducted)		Included (no deduction)[i]
4. Guaranteed payments for use of capital[9]	Excluded (deducted)	Excluded (deducted)		Included (no deduction)[ii]
5. Profits (returns to equity):				
a. General partners	Included[11]	Included[11]	Included[11]	Included[11]
b. Limited partners	Excluded	Excluded	Excluded	Included
6. Tax	Varies with earnings[12]	Excluded (deducted)	Included	Excluded (deducted)
7. Rate: Below OASDI cap	7.65%	7.65%	7.65%	7.65% or 4.1%
7. Rate: Above OASDI cap	1.45% or 2.35%[3]	1.45%	1.45% or 2.35%[3]	7.65% or 4.1%
	Other Businesses			
1. Cash Flow	Excluded	Excluded	Excluded	Included

[1] Certain employees of state and local governments are not subject to the current payroll tax. Under the proposal, the wages and fringe benefits of these employees would be subject to the GST, but their wages would remain exempt from the employee share of the payroll tax.
[2] Includes (up to separate limits) educational assistance, group term life insurance, health savings accounts (MSAs), and commuting benefits. Sole proprietors cannot exclude group term life premiums.
[3] For taxpayers with AGI above $200,000 ($250,000), an additional 0.9% HI rate applies.
[4] Partnerships include limited liability companies (LLCs) and limited liability partnerships (LLPs).
[5] Dividends, interest, and gain or loss from rentals, royalties and sales of capital assets and other property that are not received in the course of a trade or business. These items are included in the current payroll tax base for financial and investment firms. Special rules would apply to such firms under the GST.
[6] Includes guaranteed payments to general and limited partners for services provided to the partnership.

[7] Capital goods may be produced by the business, rather than purchased from another business. The tax treatment for such self-produced capital goods is the same as for purchased capital goods as shown in the table entries.
[8] Special rules for interest expense might apply for financial and investment firms.
[9] Both general and limited partners may receive payments for use of capital.
[10] Guaranteed payments that exceed profits (before the payments) are equity disinvestments, so not included.
[11] Expensing of some investment under current law and all investment under the proposal effectively removes the "normal" return (the riskless return to waiting) to equity from tax. "Supernormal" returns (returns due to successful risk taking, inframarginal returns, and economic rents) are fully taxed under current law and under the proposal.
[12] A deduction of 7.65% is allowed in computing the base, but base in excess of the OASDI cap is taxed only at the 1.45% HI rate and rates should be adjusted to be tax-exclusive (which also affects the level of the OASDI wage cap).

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