AN ANALYSIS OF THE UPDATED GRAETZ PROPOSAL TO ENACT A BROAD REFORM OF THE FEDERAL TAX SYSTEM

Jim Nunns, Chenxi Lu, Gordon Mermin, and Eric Toder

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Abstract

In this paper, the Urban-Brookings Tax Policy Center updates estimates of a proposal by Professor Michael Graetz to reflect changes in federal tax law enacted in the Tax Cuts and Jobs Act of 2017. The proposal introduces a new, broad-based value-added tax while reducing and reforming individual and corporate income taxes, revising child and earnings credits to hold low-income households harmless, and removing over 100 million returns from the income tax rolls. It would leave the federal deficit unchanged in 2030, increase incentives to save and invest, and make the distribution of the tax burden among households modestly more progressive.

This paper was completed in May 2022 based on tax law and economic and fiscal forecasts that were current at the time, as described in the paper. Findings, therefore, do not reflect the most recent Congressional Budget Office economic baseline and federal budget outlook, or tax law changes in the Inflation Reduction Act of 2022.

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INTRODUCTION

Federal tax law has been modified numerous times since the enactment of the Tax Reform Act of 1986. Such modifications have primarily reflected two major tensions in federal tax policy: the desire for low rates, largely unmatched by a desire for base broadening, and conflicting views on whether the tax system should be based on income tax or consumption tax principles. Frequent modifications create uncertainties about the future tax consequences of economic decisions, interfering needlessly with individuals' and businesses' decisions affecting work, saving, and investment. Further, among advanced market economies only the US has not adopted a broad-based consumption tax.

A proposal introduced by Yale Law School Professor Michael Graetz would address both major tensions in the current US tax system by reforming the individual and corporate income taxes and adopting a modern, broad-based, low- rate consumption tax in the form of a value-added tax, or VAT.[1] The proposal is designed to leave the federal deficit unchanged and the distribution of the tax burden modestly more progressive, the result of provisions that largely eliminate marriage penalties and ensure that typical low- and moderate-income families would not have higher overall tax burdens. These goals would be met while making the tax system simpler, fairer, and more economically efficient. Of course, the parameters of the proposal could be modified to make the resulting tax law raise more (or less) revenue or be more (or less) progressive. A deficit-neutral proposal that modestly reduces tax burdens on low- and moderate-income families, however, allows a clear comparison with our current federal tax system.

The Graetz proposal achieves its goals by significantly increasing standard deduction amounts, which would remove 106 million tax returns (about 150 million people) from the individual income tax rolls; broadening the tax base for remaining taxpayers; expanding the child tax credit; adding a new earnings credit; and lowering tax rates. These reforms are structured to largely eliminate marriage penalties, which are viewed by many as unfair and create disincentives to marry and to report marital status on income tax returns properly.[2] The proposal would also broaden the income tax base for both corporations and pass-through businesses (sole proprietorships, partnerships, and Subchapter S corporations), while leaving the corporate income tax rate unchanged at 21 percent and eliminating the double taxation of corporate dividends. Beyond these income tax reforms, the proposal would adopt a modern VAT that applies a single rate to virtually all items of household consumption. The VAT would also apply to spending on goods and services by the federal, state, and local governments; taxing this spending is essential to maintaining parity with the provision of similar goods and services by businesses. The revenue raised by the VAT (net of offsets) would offset the reduction in individual income tax revenues caused by the proposal and finance a new grant to state and

[1] The initial version of the Graetz proposal is described in Graetz (2008) and was analyzed in Toder, Nunns, and Rosenberg (2012). A version revised to reflect the federal tax law changes enacted in the American Taxpayer Relief Act of 2012 was analyzed in Toder, Nunns, and Rosenberg (2013). The most recent description of the proposal is in Graetz (2014).

[2] See Graetz (1997) for a full discussion of the effects of marriage penalties in the income tax.

local governments that would fully offset the effect of the VAT on their budgets.

The Tax Policy Center's (TPC's) analysis provides estimates of the effects of the Graetz proposal in 2030 relative to the baseline tax law that is currently scheduled to be in effect in that year. Most of the major individual income tax changes enacted in the Tax Cuts and Jobs Act of 2017 (TCJA), such as its rate reductions, repeal of personal exemptions, higher standard deduction amounts, and the increase in the child tax credit, expire at the end of 2025. These expirations make the individual income tax law scheduled to be in effect in 2030 quite similar to pre-TCJA law, differing only due to the permanent changes enacted as part of the TCJA, including the change in how parameters are adjusted ("indexed") for inflation.[3] The reduction in the corporate tax rate to 21 percent was also a permanent change enacted in the TCJA, so is scheduled to be in effect in 2030.

TPC's analysis is made under macroeconomic assumptions that gross national product (GNP) and the overall price level (the GNP deflator) are unchanged by any tax change. These are the standard macroeconomic assumptions made for the analysis of tax changes by the Congressional Joint Committee on Taxation (JCT), the Congressional Budget Office (CBO), and the US Treasury.

For the analysis, TPC used the CBO's January 2019 economic forecast[4] to extrapolate our models. That forecast, while dated, is not substantially different from the CBO's most recent forecast.[5] Further, because the proposal includes a combination of both tax reductions and increases, it is unclear what effect using the CBO's latest forecast would have on the results. In any event, given the current level of uncertainty about the future path of the economy, any projections for the year 2030 should be interpreted with caution.

The remainder of the paper is organized as follows. The next two sections discuss the Graetz proposal's reforms of the individual income tax and the taxation of corporate and pass-through business income. The details of the proposed VAT are then discussed: its base; its effects on the overall price level and real incomes; and its effects on government revenues, spending, and deficits. The paper then reports the results of our analysis of the Graetz proposal. The tax rates and other tax parameters that TPC estimated were necessary to achieve the deficit neutrality and distributional goals are presented first, followed by TPC's analysis of the effects of the proposal on revenues, spending, the deficit, the distribution of tax burdens, and the number of individual income tax filers. Appendices provide a summary of all of the major provisions of the baseline tax law in 2030, 2022 tax law (including the temporary and permanent provisions of the TCJA), and the Graetz proposal, and sets of tables with more detailed information on individual

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[3] The extension of the individual tax cuts scheduled to expire at the end of 2025 would necessarily change many of the specifics of the proposal analyzed here. To take just one example, extending the major increases in the standard deduction amounts and the attendant repeal of the personal exemptions might permit a VAT rate as much as 1 percent lower than that necessary here to achieve revenue neutrality.

[4] CBO (2019).

[5] CBO (2021). As illustrations of how little the forecasts differ, the level of gross domestic product in calendar year 2029 (the last year of the CBO forecast made in 2019) is less than 1 percent lower than in the latest (2021) forecast, and in both forecasts the growth rate of consumer prices in 2029 (as measured by the Consumer Price Index for All Urban Consumers) is 2.4 percent.

income tax rates under baseline 2030 tax law and the proposal and on the revenue, spending, deficit, and distributional effects of the proposal.

INDIVIDUAL INCOME TAX REFORMS

In the following sections, we describe the provisions of the baseline tax law currently scheduled to be in effect in 2030 and the broad reforms of those provisions that are included in the Graetz proposal.[6] Note that all parameter values are expressed in 2022 dollars (2022$).

Rates

Baseline. There are seven individual income tax rates on ordinary income that range from 10 to 39.6 percent and three rates on capital gains and qualified dividends of 0 percent, 15 percent, and 20 percent. The net investment income tax (NIIT) would be repealed.

Proposal. There are five rates on ordinary income (including dividends) of 16, 26, 33, 36, and 37 percent. Capital gains are taxed at the ordinary income rates of 16 percent and 26 percent, but the top rate on capital gains is capped at 30 percent. For all rates, brackets for married couples filing jointly are double the brackets for single filers (which includes all unmarried filers; the proposal repeals the head of household filing status). As under current and baseline 2030 tax law, rate brackets (and most other parameters) are indexed for inflation using the chained consumer price index (C-CPI).

Standard Deduction

Baseline. Standard deduction amounts (in 2022$) are $7,050 for single filers, $14,100 for joint filers, and $10,350 for head of household filers. Additional amounts apply to elderly and blind taxpayers. The TCJA increased standard deduction amounts, but those increases expire at the end of 2025; in 2022 the higher amounts were $12,950 for single filers, $25,900 for joint filers, and $19,400 for head of household filers.

Proposal. The Graetz proposal significantly increases standard deduction amounts (in 2022$) to $52,350 (single) and $104,700 (joint). As under current and baseline 2030 tax law, these amounts are indexed for inflation. The additional standard deduction amounts for elderly and blind taxpayers are repealed.

Personal Exemptions

Baseline. The personal exemption amount (in 2022$) is $4,500. Each exemption is phased out by $50 for each $2,500 of adjusted gross income (AGI) in excess of $289,650 (single filers), $347,600 (joint filers), and $318,650 (head of household filers). All amounts are indexed for inflation. The TCJA repealed personal exemptions, but the repeal sunsets at the end of 2025.

Proposal. The Graetz proposal permanently repeals personal exemptions.

[6] See appendix table A-1 for a detailed description of each provision and the corresponding provision in the baseline tax law in 2030 and under current (2022) tax law (including temporary and permanent TCJA provisions).

Child Tax Credit

Baseline. The child tax credit is $1,000 and is phased out for incomes above $75,000 (single and head of household filers) and $110,000 (joint filers). The credit is partially refundable, with the refundable amount calculated as 15 percent of AGI in excess of $3,000 (up to the full credit amount of $1,000). Eligible children must be under the age of 17. The credit amount and the refundability parameter are not indexed for inflation.

Proposal. The Graetz proposal retains the $2,000 value of the child tax credit enacted in the TCJA as a temporary provision that expires at the end of 2025, but it indexes that amount for inflation (from 2020, so it is $2,050 in 2022$), makes the credit fully refundable, and does not phase the credit out with income. In addition, the Graetz proposal broadens eligibility for the credit to children under the age of 19 and full-time students under the age of 24 (the same age limits that apply to exemptions for child dependents under baseline 2030 tax law). Because all parents would receive this credit, parents would not be required to file a return only for the purpose of claiming the credit.[7]

The Graetz proposal also includes a fully refundable additional child tax credit for children under the age of 19 and full-time students under the age of 24. The credit amount varies for parents with one child and parents with two or more children and phases out beginning at a certain level of AGI for single filers, with that level doubled for married filers. The credit, together with part of the new earnings credit described below, would replace the earned income tax credit (EITC, which as discussed below, is repealed) and some of the benefit of the head of household filing status (which is also repealed). The credit amounts, the AGI levels at which the phaseouts begin, and the phaseout rate are presented and discussed below.

For taxpayers with incomes below the new filing thresholds, which generally would be the increased standard deduction amounts, the IRS would base additional child tax credits on income computed from information returns filed by employers and other businesses.[8] The IRS would then use this computed AGI, along with marital status,[9] to calculate the amount of the additional child tax credit for eligible parents (who would also receive the regular child tax credit for the same children).

Earnings Credit

The VAT would permanently reduce real wages, primarily through a reduction in nominal wages (and other employee compensation) if the VAT does not affect the overall price level, as assumed in the standard macroeconomic assumption followed in this analysis. For higher-income workers, this reduction in real wages can be wholly or largely offset, on average, by the large

[7] Information on children's birth dates, date of death for deceased children, and Social Security numbers for children and their birth parents is provided to the IRS by the Social Security Administration. This information is sufficient to allow the IRS to pay the child tax credit to parents. Only if the custody of the child changed, or if their child was over age 18 and a full-time student, would the parent(s) be required to file that information with the IRS.
[8] All sole proprietors and some partners in partnerships would continue to be required to file Schedule SE to calculate their payroll tax (SECA tax) on earnings from self-employment. The IRS would also include these earnings in the computation of AGI.
[9] Parents would need to report changes in marital status to the IRS.

increase in standard deduction amounts, reductions in individual income taxes, and other individual income tax reforms. But many lower-income workers will have little or no individual income tax liabilities under baseline 2030 tax law so, without further changes, the reductions in individual income taxes under the Graetz proposal would provide little or no offset to their VAT burdens. Further, the Graetz proposal repeals the EITC, which (by itself) would increase the tax burden on lower-income workers.

The Graetz proposal therefore includes an earnings credit that is designed to address the additional burden on low-income workers from the repeal of the EITC and the introduction of the VAT, to the extent that burden is not offset by other provisions that reduce their individual income tax. The earnings credit would be available to all workers, regardless of age, except young workers who qualify for the child tax credit. The credit would phase in with each worker's earnings to a maximum amount, remain constant over a range, then phase out over a range of AGI (or earnings, if higher). Because the credit is per worker, a two-earner couple could be eligible for up to twice the maximum earnings credit as a single worker or a one-earner married couple. The phaseout level of AGI for joint filers would begin at double the amount set for single workers in order to avoid the substantial penalties on marriage for low- and moderate-wage parents under the current EITC. The phase-in rate and the level of earnings at which the phase-in ends (which determines the maximum credit amount), the joint AGI (or earnings, if higher) levels at which the phaseouts begin, and the phaseout rates are presented and discussed below.

As would be true for the additional child tax credit, the earnings and AGI of many workers eligible for the earnings credit would fall below the proposed standard deduction amounts. Rather than imposing a separate, lower, filing threshold or additional filing requirement on these workers, the IRS would compute their earnings and AGI based on information returns filed by employers and other businesses and earnings from self-employment reported on Schedule SE. The IRS would then use these computed earnings and AGI, along with marital status, to determine the amounts of earnings credits.[10]

Itemized Deductions

Baseline. The TCJA modified or repealed several itemized deductions, but all such changes were temporary so none of them are part of baseline 2030 tax law.

Proposal. The Graetz proposal permanently adopts four of the temporary changes to itemized deductions made by the TCJA: (i) the $750,000 cap on home acquisition debt, (ii) repeal of the deduction for interest on home equity debt, (iii) the $10,000 cap on the deduction for nonbusiness state and local taxes, and (iv) repeal of the overall limitation on itemized deductions.

Capital Gains and Qualified Dividends

Baseline. Baseline 2030 tax law has preferential rates for capital gains and qualified dividends, allows deferral of gain realization for like-kind exchanges of real property, "steps up" the basis

[10] Workers would need to report changes in marital status to the IRS.

of property held at death, and exempts capital gains on appreciated property donated to charitable organizations.

Proposal. Under the Graetz proposal, qualified dividends are taxed at the same rates as other income, but, as discussed below, the Graetz proposal allows taxpayers to claim a nonrefundable credit to offset a new 21 percent withholding tax on corporate dividends which accompanies a separate proposal to allow corporations to deduct dividend payments. Capital gains are also taxed at the same rates as other income, except that the rate is capped at 30 percent. In addition, the step-up of basis of appreciated property held at the time of death is limited to an inflation-indexed amount of $1,047,350 (in 2022$); basis above that limit carries over to heirs, including spouses.

Carried Interest

Baseline. Gains earned by the general partners of investment partnerships are taxed as capital gains, rather than as business income.

Proposal. The Graetz proposal taxes this income as ordinary business income that is subject to both income and payroll taxes.

Other Credits

The Graetz proposal repeals the EITC and the education credits, and, as discussed below, most business credits.

Alternative Minimum Tax (AMT) and Net Investment Income Tax (NIIT)

The Graetz proposal permanently repeals both the AMT and the NIIT, which are additional taxes imposed under both the current (2022) and baseline 2030 tax laws (but with differing AMT exemptions and exemption phaseouts).

Indexing

Baseline. An important provision of the TCJA that does not sunset, and therefore is part of the baseline 2030 tax law, is the change from indexing parameters such as tax rate brackets by the consumer price index (CPI) to indexing by the "chained" consumer price index (C-CPI). Over time, the C-CPI has typically risen more slowly than the CPI, so with this change the values of indexed tax parameters are expected to rise more slowly over time.

Proposal. The Graetz proposal retains indexing by the C-CPI.

CORPORATE AND PASS-THROUGH BUSINESS INCOME TAX REFORMS

The TCJA made major changes to the corporate income tax and the taxation of pass-through businesses under the individual income tax. One major business provision, the 20 percent deduction for pass-through business income, was temporary, sunsetting at the end of 2025, and the bonus depreciation provision phases out over time, so neither of these provisions is included

in the baseline 2030 tax law. Several TCJA provisions have delayed effective dates (amortization of research and experimentation [R&E] expenses) or become more restrictive over time (the limitation on interest deductions and several international provisions); the final TCJA forms of these provisions are scheduled to be in effect by 2030, so are included in baseline 2030 tax law.

The Graetz proposal reforms the taxation of business income with the goal of removing differentials and distortions in these provisions, which can impede business competitiveness and efficiency. The business income tax base is broadened by adopting alternative depreciation schedules, repealing all business credits except the R&E and foreign tax credits, and other reforms. The 21 percent corporate income tax rate enacted in the TCJA is retained. Corporations are allowed to deduct dividends paid, while paying a withholding tax of 21 percent on dividends paid. The reduced individual income tax rates under the Graetz plan described above would apply to pass-through business income.

The business-related provisions of the Graetz proposal are briefly described in the following sections.[11]

Depreciation

Baseline. Small businesses can deduct immediately ("expense") the cost of equipment, rather than recover such costs over time through deductions for depreciation, whereas large businesses generally recover the cost of equipment through deductions for depreciation using MACRS (the modified accelerated cost recovery system). All businesses must recover the cost of structures through deductions for depreciation using MACRS.

Proposal. The Graetz proposal retains the expensing of equipment for small businesses, but all other purchasers of equipment and all purchasers of structures would be required to recover these costs through deductions for depreciation using ADS (the alternative depreciation system). ADS was developed to reflect economic depreciation, and therefore better measures the net income generated by investments than does MACRS.

Credits

Baseline. Businesses can claim various credits related to investment in certain assets including low-income housing, energy production from specified sources, development of orphan drugs, and other purposes.

Proposal. The Graetz proposal repeals all of these business credits, retaining only the R&E and foreign tax credits.

[11] See appendix table A-2 for a detailed description of each provision as well as of the corresponding provisions in the baseline 2030 tax law and under current (2022) tax law (including the temporary and permanent provisions of the TCJA).

Other Base Broadeners

The Graetz proposal repeals the incentives for opportunity zones added by the TCJA and the deferral of gains on like-kind exchanges of real property.

Interest Expense

Baseline. Prior to the TCJA, aside from narrowly targeted restrictions, businesses generally could deduct the full amount of any interest expense. The TCJA imposed a limitation on the deduction for interest expense of large businesses and made the limitation more restrictive after 2021.

Proposal. The Graetz proposal permanently retains the less restrictive TCJA interest expense limitation that wasin effect prior to 2022.

Expenses for Research and Experimentation

Baseline. The TCJA added a provision to require expenses for R&E to be amortized over five years (rather than immediately deducted, as under pre-TCJA law). The effective date of this provision was delayed until 2022, so it is currently phasing in and is part of baseline tax law in 2030.

Proposal. The Graetz proposal allows R&E expenses to be immediately deducted, reinstating pre-TCJA law.

Eliminate Double Taxation of Corporate Dividends

Under both current and 2030 baseline tax law, corporate profits are taxed once at the corporate level and again to shareholders when these profits are distributed as dividends. The Graetz proposal would eliminate this double taxation of dividends, using the same approach proposed in a plan developed by the Senate Finance Committee while it was chaired by Senator Orrin Hatch (Republican Staff, Committee on Finance, United States Senate 2014). Under the Graetz version of the Hatch plan, dividends paid by US-resident corporations would be deductible from taxable income. Dividend deductions in excess of taxable income could be carried forward and deducted in future years.

Corporations would be required to withhold a tax of 21 percent of the amount of dividends paid to any shareholder. Shareholders would be able to claim a nonrefundable credit of 21 percent of gross dividends (i.e., dividends including the withholding tax) received.[12] For taxable shareholders, the credit would fully offset the individual income tax imposed on the gross dividend for taxpayers with a rate up to 21 percent, and would partially offset tax liability for individuals with higher tax rates. Shareholders without US income tax liability would not receive

[12] The withholding tax would be included in taxable income, but would be excluded from AGI in order to prevent the provision from raising tax liability for many low- and middle-income taxpayers who receive benefits that phase out with AGI, but have no taxable income under the Graetz proposal because of the increase in the standard deduction.

a credit because it is nonrefundable. The details of the dividend deduction proposal and how it was estimated are provided in appendix E.

ADOPT A MODERN VALUE-ADDED TAX

A value-added tax, or VAT, is a broad-based tax on consumption, similar to the retail sales taxes imposed by most states and many local governments in the US. But unlike retail sales taxes, which are generally collected only at the retail level, a VAT is collected at each stage of the production and distribution of goods and services. VATs are an important revenue source for the national governments of nearly every country in the world except the US.[13]

The VAT proposed by Graetz shares two basic design features of the VATs in place around the world: it is credit-invoice and destination based. In a credit-invoice VAT, tax is imposed on the sales of each business, but a credit is allowed for the tax included in purchases firms make from other businesses. *Destination based* means the VAT is "border adjusted," with tax imposed on imports and removed from exports, so that only consumption in the US would be subject to the US VAT.

The proposed VAT follows the design of modern VATs like New Zealand's by having a base that covers virtually all items of consumption and a single rate that applies to all items in the base. The VAT rate is reported below on a "tax-exclusive" basis, meaning the rate applies to the price of a good or service excluding (i.e., before) tax, the standard way of expressing VAT and sales tax rates.[14] Note that the proponents of some VAT-type taxes (such as the "flat tax" and the "business transfer tax") have expressed rates on a "tax-inclusive" basis, making the proposed rate(s) appear lower than standard VAT and sales tax rates.

The VAT Base—Household Consumption

For various historical and political reasons, the VATs originally adopted in Europe and other countries had relatively narrow bases and multiple rates. But over time, as countries gained experience in the administration and design of VATs, some have moved to modernize VATs by making bases much broader and applying a single rate to most, if not all, items in that broader base. Likewise, countries that have enacted VATs more recently generally have adopted quite broad VAT bases and single (or close to flat) rates. New Zealand's is the leading example of a "modern" VAT, with a single rate and a base that includes most household spending on goods and services as well as the spending of governments on goods and services.[15]

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[13] The Organisation for Economic Co-operation and Development reports that 168 countries imposed a VAT in 2018 and that VAT revenues accounted for about 20 percent of total tax revenues worldwide (OECD 2018).
[14] A tax-exclusive rate is the rate that applies to the consumption tax base excluding the tax. In contrast to tax-exclusive rates, income tax rates are tax inclusive, meaning the rate applies to the income tax base including the tax. For example, a 10 percent tax-exclusive rate is a 9.1 percent tax-inclusive rate (10/110) and a 10 percent tax-inclusive rate is an 11.1 percent tax-exclusive rate (10/90). A 30 percent tax-exclusive rate is a 23.1 percent tax-inclusive rate (30/130), and a 30 percent tax-inclusive rate is a 42.9 percent tax-exclusive rate (30/[70]).
[15] For a more extended discussion of the development of VAT bases, see Nunns and Toder (2017).

The VAT base proposed by Graetz is similar in breadth to the New Zealand VAT base, although the designs differ somewhat in administrative details. All items of household consumption are in the proposed VAT base, but for administrative and policy reasons special approaches are required for certain items. The following discussion of these items is based on their treatment in the National Income and Product Accounts (NIPA), the starting point for defining the proposed VAT base.[16]

Small business exemption. Under the Graetz proposal businesses with average sales of goods and services over the preceding three years of less than $1 million would be exempt from the VAT. As in other countries with small business exemptions, some small businesses would choose to forgo the exemption and be subject to VAT so that they could pass through VAT credits on their sales to other businesses and recover VAT on business inputs.

Housing. NIPA includes in housing consumption the "imputed rental value of owner-occupied housing," which is measured by considering homeowners as their own landlords who pay rent to themselves. Because homeowners do not actually calculate the rental value of their homes and it would impose significant burdens on homeowners if they were required to make such calculations, imputed rents are excluded from the VAT base. To avoid differential tax treatment of owner- and tenant-occupied housing, rents paid for tenant-occupied housing are also excluded from the VAT base.[17] However, business receipts from the sale of new housing and substantial improvements made to existing housing are included in the proposed VAT base , even though they are treated as investment, rather than consumption, in the NIPA. Because both actual and imputed housing rents are determined by the cost of housing and housing improvements, this approach has the effect of taxing the rental value of all new housing and all future improvements to existing housing.[18]

Net foreign travel and expenditures. NIPA includes in consumption amounts paid by US residents for travel abroad and for their purchases of goods and services while abroad and excludes the cost of foreigners' travel to the US and their purchases of goods and services while in the US. For administrative reasons, the proposed VAT base reverses this treatment and includes foreigners' travel to and purchases while in the US while excluding travel and purchases abroad by US residents.[19]

State and local sales and excise taxes. NIPA consumption includes all state and local sales and excise taxes that are included in the price of consumption items. The proposed VAT base would exclude these taxes at all stages of production and distribution. However, the amount of sales and

[16] For a detailed description of these adjustments, see Toder, Nunns, and Rosenberg (2012).
[17] Residential rents paid by tenants as well as imputed rents of homeowners include only the rental value of the residential dwelling, so exclude amounts paid for other goods and services (such as amounts paid for nonresidential space, utilities, and repairs).
[18] This approach is referred to as the "prepayment" method. All other consumer durables and capital goods used by governments and nonprofits for noncommercial purposes would also effectively be taxed under the prepayment method.
[19] This adjustment assumes that the expenditures are for nondurables consumed abroad by US residents and in the US by foreigners. As in other countries' VATs, adjustments would be made for personal purchases of goods abroad by US residents that are consumed in the US (generally, these are purchases of durable goods) and for purchases of goods in the US by foreigners that are consumed outside the US.

excise taxes imposed prior to the retail stage would be reflected in the value of subsequent sales but not carry a VAT credit, so effectively would be included in the VAT base. Therefore, only the exclusion of these taxes imposed at the retail level affects the size of the proposed VAT base.

Nonprofits. Goods and services provided to households by nonprofits are included in NIPA consumption. Some of these goods and services are provided in return for a fee or charge (e.g., the fees and charges of nonprofit hospitals and the sales of bookstores operated by nonprofit colleges and universities). Receipts from such "commercial" activities of nonprofits would be subject to the proposed VAT in the same manner as the receipts of other businesses. But many nonprofits provide goods and services whose costs are not covered, or fully covered, by a fee or charge, and rely on donations and grants to cover the remainder of the costs. The consumption of these goods and services is included in the proposed VAT base in the same way that the noncommercial activities of governments are included, as described in the following section.

Noncompliance. We assume that the combination of the small business exemption and a reasonable allowance for noncompliance would remove 15 percent of most household consumption from the VAT base.[20]

Table 1 shows the major components and adjustments to household consumption in the VAT tax base proposed by Graetz for 2030. Starting with estimated NIPA consumption of $22.7 trillion, adjustments are made as described above for housing, net foreign travel and expenditures abroad, and state and local sales and excise taxes on final sales to households. With these adjustments, the amount of household consumption in the proposed VAT base is $19.8 trillion, which represents 87.4 percent of total consumption. The final adjustment is for the small business exemption and noncompliance, which reduces the VAT base by $2.5 trillion (11.0 percent of total consumption). The net amount of household consumption in the effective VAT base for 2030 is therefore estimated to be $17.4 trillion, 76.4 percent of total household consumption.

[20] We assume there would be negligible noncompliance for health-related spending that is financed by governments (e.g., by Medicare and Medicaid).

TABLE 1
Household Consumption in the VAT Base in 2030

	Level ($ billions)	% of Total
NIPA household consumption	22,713.5	100.0
Less: Imputed rent on owner-occupied housing	2,598.1	11.4
Less: Rental of tenant-occupied housing	1,145.9	5.0
Plus: New housing and improvements to existing housing	1,307.2	5.8
Equals: Net housing adjustment	−2,436.8	−10.7
Less: Net foreign travel and expenditures abroad by US residents	-0.5	0.0
Less: State and local sales and excise taxes on final sales	435.3	1.9
Subtotal	19,841.9	87.4
Less: Adjustment for noncompliance and a small business exemption	2,487.8	11.0
Equals: Household consumption in VAT base	17,354.1	76.4

Sources: US Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (NIPA); CBO (2019); and TPC estimates.
Notes: VAT = value-added tax; NIPA = National Income and Product Accounts.

The VAT Base—Government Spending on Goods and Services

Governments, like nonprofits, provide some commercial goods and services (such as water from municipal systems) for a fee or charge, and, as noted earlier, such activities would be included in the VAT base just like the sales of other businesses.[21] But most of the goods and services governments provide are financed by tax revenues (and borrowing) rather than by fees and charges. Examples of such noncommercial (or "general") government spending include education, courts and law enforcement, and most streets and highways. NIPA classifies such government activities separately from household consumption, but they constitute a significant portion of total spending on goods and services.

The bases of the VATs in most countries and the bases of the sales taxes imposed by state and local governments in the US generally exclude the general spending of governments, including spending on purchases from businesses for goods and services used to produce general government services. However, important precedents do exist for including all general government spending in the base of a VAT. One precedent is that the bases of the income and payroll taxes imposed by the federal, state, and local governments in the US, as well as by governments throughout the world, include the wages of government workers as well as the wages paid and profits earned by businesses that sell goods and services to governments.

[21] NIPA includes households' purchases of such goods and services in consumption.

Another precedent is the New Zealand VAT, which includes all general government spending in its base. The VAT bases in many other countries include at least some of this government spending. Further, proposals for US VATs and other VAT-like taxes have typically included general government spending in the tax base.[22]

Including general federal spending in the VAT base does not reduce the federal deficit because the federal government would simply be paying VAT to itself. The inclusion of general state and local government spending in the VAT base under the Graetz proposal also does not reduce the federal deficit because the additional federal revenues are fully offset by a new federal grant to state and local governments. Although there is no impact on the federal deficit, policy considerations provide a strong case for including general spending at all levels of government in the VAT base. First, such spending is undertaken to directly or indirectly meet the needs of households, just as household spending is undertaken to meet needs, so in that respect there is no fundamental economic difference between the two forms of spending. Second, because some types of government activity can be provided, at least in part, by private businesses (e.g., private schools and security firms), excluding such services that are directly provided by government from the VAT base would impose a competitive disadvantage on private firms, which would be required to pay VAT on their sales. And third, the spending at all levels of government would artificially appear to be lower than it actually was if this spending were excluded from the VAT base while spending on goods and services provided by businesses was subject to VAT; this fiscal illusion could lead to poorly examined expansions of real government spending at all levels of government.

To include government spending on noncommercial activities in the VAT base, the compensation of government employees engaged in such activities[23] would be taxed at the VAT rate under the Graetz proposal. In addition, the value added by businesses that sell goods and services to governments (and the value added by their suppliers) would be taxed. Governments, however, would not be allowed a credit for the VAT included in their purchases for noncommercial purposes.[24] This same approach would apply to the noncommercial activities of nonprofits.

Effect of the VAT on the Overall Price Level and Real Incomes

The standard analyses of tax and spending proposals prepared by federal agencies such as the Congressional Joint Committee on Taxation, the CBO, and the US Treasury are based on the macroeconomic assumptions that real economic output (GNP) and the overall price level

[22] See, for example, Hall and Rabushka (1985), Carroll and Viard (2012), the proposal by then–presidential candidate Senator Ted Cruz (Cruz Campaign 2015), and Gale (2020).

[23] Compensation includes both wages and fringe benefits (such as contributions to retirement funds and health insurance). Note that the compensation of government employees engaged in commercial activities financed by a fee or charge as well as the compensation of employees of businesses are part of the value added by commercial activities, so would be taxed directly by the VAT.

[24] In contrast, purchases from businesses for commercial activities of governments would receive a credit for included VAT.

(the GNP deflator) are unchanged by the proposal.[25] TPC generally adheres to these macroeconomic assumptions in its standard analyses, but to simplify the analysis of VATs it has made the further assumption that the deflators for consumption and the other major components of GNP are unchanged by a VAT.[26]

Although the overall price level and the overall price level for household consumption are assumed to be unchanged, the prices of taxed goods increase (by the VAT rate) relative to the prices of untaxed goods. Because the VAT is border adjusted, all imports would be subject to tax, while exports would be free of tax. This difference in VAT treatment, alone, would make the prices of imports rise relative to the prices of exports. But we assume that this relative price effect would be fully offset by an increase in the exchange rate of the dollar, so that the trade balance would be unchanged.[27]

Effect of the VAT on Government Revenues and Spending[28]

Revenues. The proposed VAT would raise a significant amount of revenue for the federal government, but it would also affect revenues from other taxes. With the overall price level unchanged by assumption, the reduction in employee compensation would reduce the bases of the individual income and payroll taxes and of customs duties, and the reduction in investment returns on existing assets would reduce the bases of the individual and corporate income taxes and the earnings of the Federal Reserve that are transferred to the US Treasury.[29] These reductions in other revenues are considered "offsets" to the gross amount of revenue raised by the VAT.[30]

State and local income tax receipts would be reduced by the VAT in the same manner as federal income tax receipts. In addition, the VAT would reduce the base of state and local sales taxes due to the reduction in employee compensation and investment returns, because the bases of

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[25] GNP is gross national product, which measures the total output (and incomes) of US residents, whereas gross domestic product (GDP) measures the total output (and incomes) generated within the US. The difference between GNP and GDP is the amount of output produced (income earned) abroad by US residents less the output produced (income earned) within the US by nonresidents.

[26] This further assumption is somewhat inconsistent with the standard assumption that the GNP deflator is unchanged because the VAT would result in higher price deflators for the components of GNP subject to VAT (e.g., consumption and government spending on goods and services in the Graetz proposal) and lower price deflators for untaxed components (investment and exports). However, the inconsistency is relatively minor because the relative prices of the taxed and untaxed components of GNP would change by much less than the VAT rate.

[27] In the short run, before the exchange rate fully adjusted, as well as in the long run, if the exchange rate did not ever fully adjust, the US terms of trade would improve and net exports would increase.

[28] See Nunns and Toder (2017) for a more detailed discussion of the effects of a federal VAT on government revenues and spending.

[29] Investment (in the NIPA sense) isn't taxed in a VAT, but (with an assumed fixed GNP deflator) producer prices must fall. Since real investment isn't affected by the VAT (fixed GNP assumption), the value of the capital stock has to fall over time, so nominal normal returns to investment have to fall, even though the normal rate of return doesn't change. Supernormal returns fall "immediately" and permanently because they are part of factor incomes (the income counterpart of producer prices).

[30] The discussion here on the effects of a VAT in reducing employee compensation applies solely to the VAT and does not take into account other aspects of the proposal that raise net compensation, such as the reductions in personal income taxes or the new earnings credit.

those taxes are assumed to exclude the VAT.[31] Revenues from property taxes would also be affected, with higher revenues from residential properties because the VAT would make new housing somewhat more expensive, raising the value of existing housing. But property taxes from nonresidential real estate would fall because new structures (net of the VAT, for which businesses would receive a credit) would become less expensive to produce due to lower employee compensation and business profits, driving down the value of existing structures. Fees and charges for commercial activities of state and local governments would be subject to the VAT and therefore increase, but that increase would be due entirely to the collection of the VAT on behalf of the federal government. Retirement fund revenues from wage-based contributions and returns on fund investments would likewise fall due to both lower contributions and reductions in investment returns.

Spending. The pre-VAT prices of goods and services purchased from businesses would fall, but VAT-inclusive prices would be unchanged, so nominal spending on such purchases would be unchanged. Likewise, VAT-inclusive spending on employee compensation would be unchanged.[32] So the nominal level of (VAT-inclusive) federal spending required to hold the real level of this spending constant would be unchanged. Nominal federal spending on cash transfer payments would decline over time due to the reduction in wages,[33] but the Graetz proposal includes adjustments to the benefit formulas for all federal cash transfer programs that would fully offset these declines, so nominal spending on such payments would also be unchanged.

Note that in the Graetz proposal, reductions in the pre-VAT level of nominal federal spending have no effect on the federal budget deficit because the change in pre-VAT spending is exactly offset by the VAT revenue from the imposition of VAT on that spending.[34]

The VAT would affect state and local government spending in the same manner as federal spending, but state and local governments would not receive any VAT revenues.[35] So VAT-inclusive nominal state and local spending for purchases from businesses and employee compensation would be unchanged, as would spending financed by fees and charges.[36] However, nominal spending on employee retirement benefits would decline over time.[37]

Absent any adjustments, the net effect of the proposed federal VAT on state and local revenues and spending would likely worsen these governments' budget balances. However, the Graetz

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[31] Current state and local sales tax bases generally exclude federal excises that are separately stated, so the VAT would apparently be excluded from sales tax bases if it were separately stated, as it presumably would be.
[32] As noted earlier, the NIPA includes commercial activities of governments in household consumption.
[33] The reduction in wages would lead to a reduction in cash transfer benefits because the benefit formulas are generally based on previous wage earnings, and over time all prior earnings would have been reduced by the VAT.
[34] This revenue offset to spending (in budget parlance, these VAT revenues are "offsetting receipts") occurs both for spending that the NIPA classifies as federal government consumption and for spending that is financed by fees and charges that the NIPA classifies as household consumption.
[35] State and local governments would collect VAT on their commercial activities but then remit those collections to the federal government.
[36] For most commercial activities, the increase in spending would be offset by higher revenues from VAT-inclusive fees and charges, so they would have no effect on state and local budget balances.
[37] We assume that state and local governments adjust benefit formulas for cash transfer benefits to fully offset the effects of the VAT on the real value of benefits, but do not adjust employee retirement benefits (which the Graetz proposal indirectly protects from the effects of the VAT through income tax reforms).

proposal includes a new federal grant that would fully offset these effects, so that the federal VAT would have no net effect on state and local government budget balances.

EFFECTS OF THE GRAETZ PROPOSAL

The proposal is designed to achieve both deficit neutrality and its distributional goals by the choice of individual income tax rates and brackets, the phase-ins and phaseouts of the additional child and earnings credits, and the VAT rate. To find the set of tax parameters that allow the reformed tax system to meet these goals, we used an initial set of parameters to make an initial set of deficit and distributional estimates. Then, iteratively, we adjusted the parameters to achieve the deficit-neutrality and distributional goals.

We follow TPC's standard long-run incidence assumptions in analyzing the Graetz proposal—that individual income taxes are borne by payors; payroll taxes (both the employer and employee portions) by workers; the corporate income tax 20 percent by labor (employee compensation), 20 percent by the portion of the return earned by all investors (i.e., both equity owners and lenders) that reflects normal returns, and 60 percent by the portion of the return to corporate shareholders that reflects corporate-source supernormal returns; the estate tax by decedents; and the VAT by labor (employee compensation), the portion of the return to corporate shareholders and owners of pass-through businesses that reflects supernormal returns, cash transfer benefits, and retirement benefits.[38]

TPC's preferred measure of the burden of taxes imposed under baseline tax law is the amount that each tax unit's income before taxes is reduced by the effects of baseline tax law. This measure is preferred because a tax unit's after-tax income is the amount the unit has available for present and future consumption. Correspondingly, TPC's preferred measure of the burden (or benefit) of a change in the tax law, such as the changes that would be made under the Graetz proposal, is the percentage change in the after-tax income of tax units.

The following three sections summarize the tax parameters, estimated effects on federal revenues, spending, and the deficit, and estimated distributional effects of the Graetz proposal. All tax parameters are expressed in 2022 dollars, while revenue, spending, deficit, and distributional results are all estimated at 2030 levels of income and expressed in 2030 dollars.

Tax Rates and Parameters of the Additional Child and Earnings Credits

We set the tax rates and parameters, as noted above, to meet deficit-neutrality and distributional goals. The VAT rate is 10 percent. The lowest individual income tax rate under the proposal is 16 percent and the highest 37 percent (which starts at AGI of $800,000 for joint filers and half that amount, $400,000, for single filers). Marginal rates in 2030 for joint filers using the standard

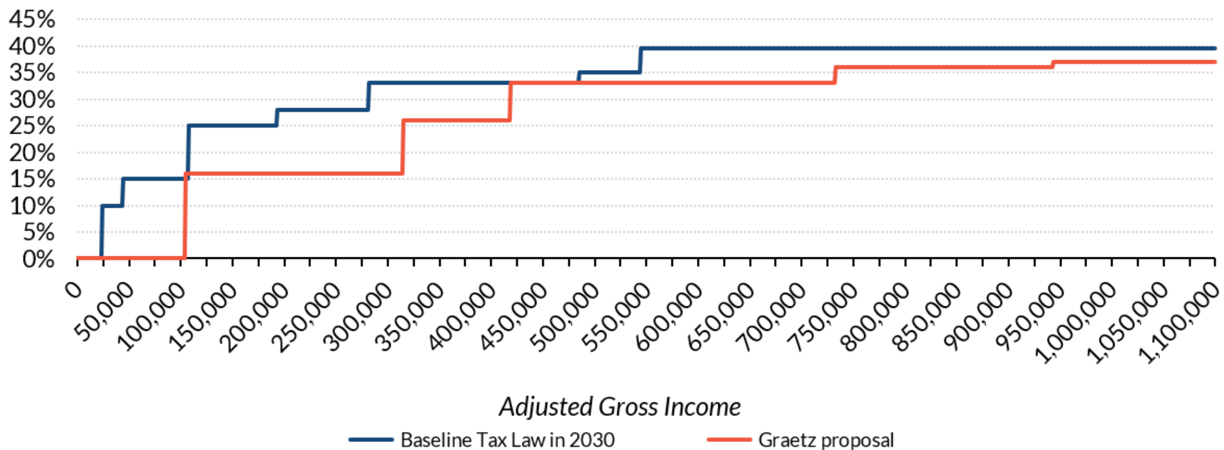
[38] Retirement benefits bear a VAT burden for the same reason that cash transfer benefits do, as noted earlier: the reduction in wages would lead to a reduction in benefits because cash transfer and defined-benefit retirement benefit formulas and contributions to defined-contribution plans are all based on wages, and over time all prior earnings would have been reduced by the VAT.

deduction under the Graetz proposal and baseline tax law are illustrated in figure 1.[39] Except for narrow ranges of AGI, marginal rates under the Graetz proposal are lower, and typically substantially lower, than under the baseline tax law.

FIGURE 1

Tax Rates on Joint Filers under the Baseline Tax Law in 2030

Tax brackets are in 2022$; rates apply to ordinary income; all taxpayers use the standard deduction



Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0391-2).

The additional child tax credit parameters (in 2022$) are shown in table 2. For a single parent, the credit would be $2,770 for one child and $4,180 for two or more children until AGI (or earnings, if higher) reached $19,350 and would then begin to phase out at a 15 percent rate. The credit would be fully phased out at AGI of $37,817 for one child and at $47,217 for two or more children. For married couples the credit would also be $2,770 for one child and $4,180 for two or more children and would begin to phase out (also at a 15 percent rate) at twice the AGI level as for single parents, or $38,700. The credit would be fully phased out at $57,167 for one child and at $66,567 for two or more children.

[39] See appendix B for a table with the full set of individual income tax rates.

TABLE 2
Additional Child Tax Credit in the Graetz Proposal
(2022$)

One Qualifying Child			Two or More Qualifying Children		
AGI	Base Credit	Phaseout Rate	AGI	Base Credit	Phaseout Rate
Single Filers					
0	2,770	0.00%	0	4,180	0.00%
19,350	2,770	15.00%	19,350	4,180	15.00%
37,817	0	15.00%	47,217	0	15.00%
Married Couples Filing Jointly					
0	2,770	0.00%	0	4,180	0.00%
38,700	2,770	15.00%	38,700	4,180	15.00%
57,167	0	15.00%	66,567	0	15.00%

Note: AGI = adjusted gross income.

The required earnings credit parameters (in 2022$) are shown in table 3. The credit phases in with each worker's earnings at a rate of 40 percent until earnings reach $5,750, for a maximum credit of $2,300. The credit then remains at that maximum level until AGI (or earnings, if higher) reaches $15,906 for a single worker or twice that level, $31,812, for a joint filer. The credit then phases out at a rate of 6 percent, so it is fully phased out for a single worker at $54,239 of AGI (or earnings, if higher) and at $70,150 for a married couple with one earner. Because each spouse could qualify for the credit, a two-earner married couple could earn a maximum credit of $4,600, in which case the phaseout would end at $108,479.

TABLE 3
Earnings Credit in the Graetz Proposal
(2022$)

Single Worker				Married Couple with One Worker				Married Couple with Two Workers			
Earnings or AGI[a]	Base C	Phase-in Rate	Phaseout Rate	Earnings or AGI[1]	Base Credit	Phase-in Rate	Phaseout Rate	Earnings or AGI[1]	Base Credit	Phase-in Rate	Phaseout Rate
0	0	40%	0%	0	0	40%	0%	0	0	40%	0%
5,750	2,300	0%	0%	5,750	2,300	0%	0%	11,500	4,600	0%	0%
15,906	2,300	0%	6%	31,812	2,300	0%	6%	31,812	4,600	0%	6%
54,239	0	0%	0%	70,145	0	0%	0%	108,479	0	0%	0%

Note: AGI = adjusted gross income.

[a] The credit phases in with earnings (for married couples, with the earnings of each spouse, up to the earnings limit for single filers) and phases out with the higher of earnings or AGI (joint earnings or AGI for married couples).

Federal Revenues, Spending, and the Deficit

Table 4 summarizes the effects of the Graetz proposal on federal revenues, spending (outlays), and the deficit in 2030.[40] By design, the net effect of the entire proposal on the federal deficit

[40] A table with more detail for the revenue effects can be found in appendix C.

is intended to be zero. The large decrease in individual income tax revenues (−$1.3 trillion) is more than offset by increased revenues from the corporate and business reforms ($38 billion) and the large amount of net revenue generated by the 10 percent VAT ($1.4 trillion). These changes generate a net increase of $172 billion in revenue, $8 billion more than the increase in outlays (the new grant to state and local governments) of $164 billion.

TABLE 4
Summary of the Revenue and Outlay Effects of the Provisions of the Graetz Proposal in 2030

Provision	Amount ($ billions)
Individual income tax provisions	−1,252.6
Corporate and noncorporate business income tax provisions	37.8
Value-added tax (VAT) of 10%[a]	1,386.8
Change in nominal federal outlays	163.7
Change in the federal deficit (−) or surplus	8.3

Sources: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2) and TPC estimates.

[a] VAT revenues are net of income, payroll, and other tax offsets.

Distribution of Tax Burdens

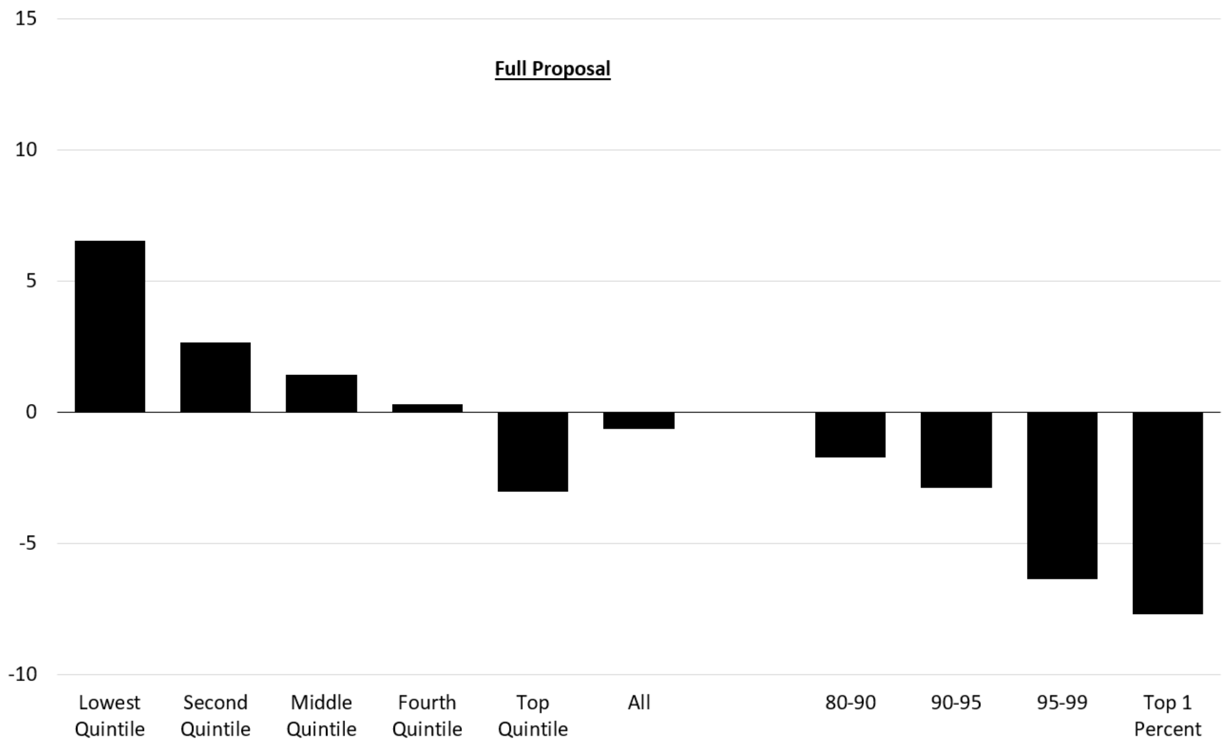
Figure 2 illustrates the distributional effects of the total Graetz proposal and of the two major components of the Graetz proposal—the income tax reforms (including the new earnings credit) and the VAT. By design, the proposal would not increase tax burdens on typical low- and moderate-income tax units. Meeting this goal while avoiding marriage penalties would result in some low- and moderate-income tax units (in particular, married couples with children) receiving relatively large tax cuts and a reduction in average tax burdens (an increase in after-tax income) in each of the bottom four quintiles. Correspondingly, because the proposal would also be deficit neutral, average tax burdens would rise (after-tax income would decline) throughout the top quintile. All but the top 1 percent of tax units would have a tax cut from the income tax changes, but throughout the top quintile the burden of the new VAT would be larger than the reduction in income taxes.[41]

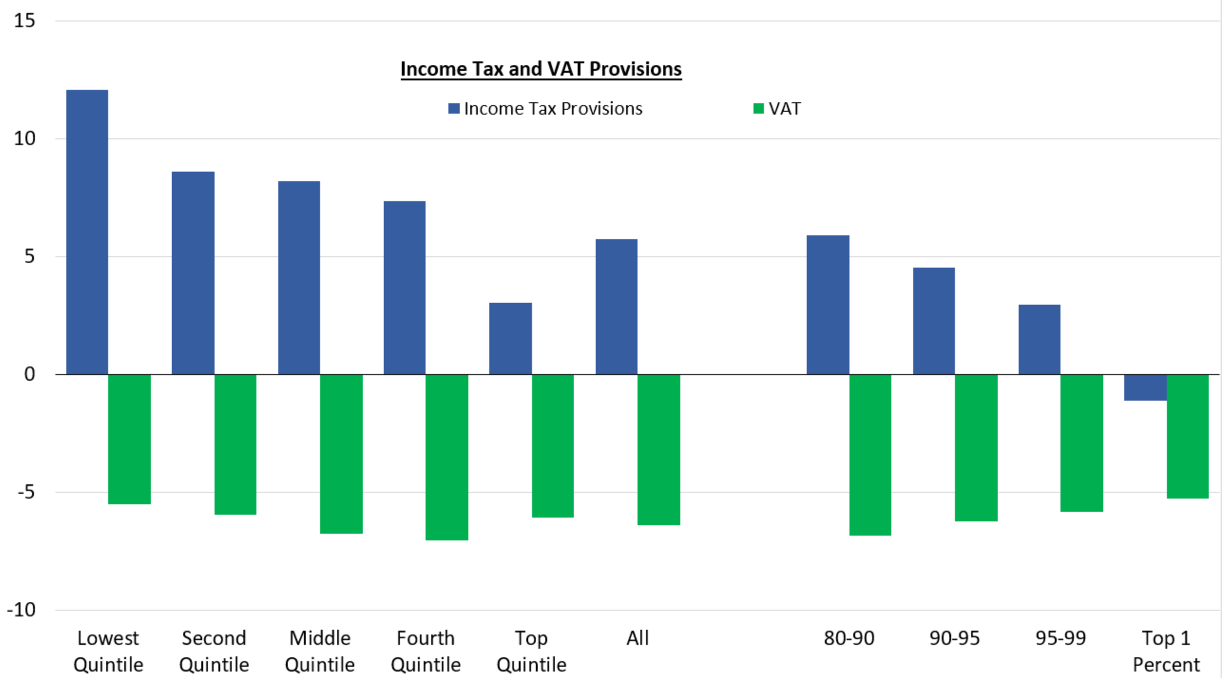
[41] For a description of TPC's tax model and its general methodology for distributing the burden of federal taxes among income groups see https://www.taxpolicycenter.org/resources/brief-description-tax-model.
For more detail on how TPC distributes the corporate income tax, see Nunns (2012), and on how TPC distributes the burden of the value-added tax, see Toder, Nunns, and Rosenberg (2011).

FIGURE 2

Percent Change in After-Tax Income under the Graetz Proposal

By expanded cash income percentile





Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0391-2).

Number of Individual Income Tax Filers

The Graetz proposal would substantially reduce the number of individual income tax filers (table 5). Nearly two-thirds of filers (106 million out of 165 million) under baseline tax law in 2030 would not have to file a return under the Graetz proposal, and fewer than 15 million who would become income tax nonfilers would continue to be required to file for self-employment payroll tax (Self-Employed Contributions Act [SECA] tax) purposes. The number of itemizers would decline by 97 percent, from 55.7 million under baseline tax law to only 1.8 million under the Graetz proposal. These very large reductions in the number of returns filed and itemizers would significantly reduce the tax compliance costs of households and IRS administrative costs.

TABLE 5
Number of Individual Income Tax Filers under Baseline Tax Law and the Graetz Proposal in 2030

Filing Status[a]	All Tax Units[b] (000)	Filers under: Baseline Tax Law in 2030		Filers under: Graetz Proposal[c]		ADDENDUM: Nonfilers Who Owe SECA Tax under the Graetz Proposal	
		Number (thousands)	% of Tax Units	Number (thousands)	% of Tax Units	Number (thousands)	% of Tax Units
S	89,740	73,750	82.2	22,440	25.0	5,500	6.1
MFJ	69,240	62,020	89.6	28,550	41.2	6,460	9.3
HoH	25,120	24,720	98.4	6,190	24.6	2,490	9.9
MFS	4,590	4,590	100.0	2,010	43.8	390	8.4
Total	188,700	165,080	87.5	59,190	31.4	14,840	7.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2).

[a] S = single; MFJ = married filing jointly; HoH = head of household; and MFS = married filing separately. These are filing statuses under current law.

[b] Filers and nonfilers; excludes the 11.1 million dependents of another taxpayer who file income tax returns under baseline tax law in 2030.

[c] The count of filers under the Graetz proposal includes only tax units that have adjusted gross income in excess of their standard deduction.

APPENDIX A. DETAILED DESCRIPTION OF THE BASELINE TAX LAWS IN 2022 AND 2030 AND OF THE GRAETZ PROPOSAL

TABLE A-1
Parameters of the Individual Income Tax Nonbusiness Provisions and the AMT, Estate Tax, and Payroll Tax under the Baseline Tax Law Scheduled to be in Effect in 2030, Current (2022) Tax Law including Temporary and Permanent TCJA provisions, and the Graetz proposal
Dollar amounts are in 2022$

Provision	Baseline Tax Law in 2030	Current (2022) Tax Law including Temporary and Permanent TCJA Provisions	Graetz Proposal
		Individual Income Tax Parameters	
Rates	10%, 15%, 25%, 28%, 33%, 36%, 36.9%	10%, 15%, 22%, 24%, 32%, 35%, 37%	16%, 26%, 33%, 36%, 37%
Standard deduction	Single: $7,050 (indexed) MFJ: $14,100 (indexed) HoH: $10,350 (indexed)	Single: $12,950 (indexed) MFJ: $25,900 (indexed) HoH: $19,400 (indexed)	Single: $52,350 (indexed from 2020 level of $50,000) MFJ: $104,700 (indexed from 2020 level of $100,000) HoH: N/A (filing status repealed)
Personal exemptions	Amount $4,500 (indexed) Phaseout (PEP) Each exemption phased out by $50 for each $2,500 of AGI in excess of $289,650 (single), $347,600 (MFJ), and $318,650 (HoH); all amounts indexed	N/A (temporarily repealed through 2025)	Permanently repealed
Above-the-line deductions	Includes deductions for certain employee business expenses (e.g., educators' expenses up to $300; reservists' travel expenses)	Same as 2030 baseline tax law, except no deduction is allowed for moving expenses (except for members of the armed forces) through 2025	Same as 2030 baseline tax law
Itemized deductions	State and Local Taxes Nonbusiness income or sales and property taxes are fully deductible	Through 2025 deduction for nonbusiness income or sales and property taxes capped at $10,000	Deduction for nonbusiness income or sales and property taxes permanently capped at $10,450 (indexed from 2020 level of $10,000)
	Charitable Contributions AGI caps apply to various types of giving	Same as 2030 baseline tax law, except through 2025 the cap on gifts of cash to public charities is increased	Same as 2030 baseline tax law
	Mortgage Interest $1,000,000 (not indexed) cap on acquisition debt; $100,000 (not indexed) cap on home equity debt	Through 2025 acquisition debt is capped at $750,000 (not indexed) and no deduction is allowed for interest on home equity debt	Both current (2022) law provisions are made permanent
	All other Deductions for medical and dental expenses (above 10% of AGI), investment interest, casualty and theft losses, employee business expenses, and miscellaneous items	Same as 2030 baseline tax law, except that through 2025 the AGI floor for medical and dental expenses is 7.5% and deductions for nondisaster personal casualty losses and for miscellaneous expenses subject to 2% of AGI floor are repealed	Same as 2030 baseline tax law
	Limitation (the Pease limitation) Itemized deductions generally phased out by 3% of AGI in excess of same thresholds as PEP	N/A (temporarily repealed through 2025)	Permanently repealed

Table A-1 -- Continued

Provision	Baseline Tax Law in 2030	Current (2022) Tax Law including Temporary and Permanent TCJA Provisions	Graetz Proposal
Realized capital gains	Maximum rate is generally 20% (0% if gain would otherwise be taxed at 10% or 15% and 15% if gain would otherwise be taxed at 25%, 28%, 33%, or 35%); 3.8% NIIT may also apply	Same as 2030 baseline tax law	Taxed at ordinary income tax rates, except top rate capped at 30%
Unrealized gains on property contributed to charities|	Gain is not realized, but charitable contribution deduction is allowed for fair market value of property	Same as 2030 baseline tax law	Same as 2030 baseline tax law
Unrealized gains on gifts and at time of death	Gains deferred until recipient sells property; gain on gifts computed using basis of giver ("carryover basis"); gain on inheritances computed using fair market value at time of decedent's death ("stepped-up" basis)	Same as 2030 baseline tax law	Same as 2030 baseline tax law, but with a $1,047,350 (indexed from 2020 level of $1 million) limit on the step-up of the basis of appreciated assets at the time of death
Carried interest	Gains on certain assets of general partners of investment partnerships taxed as capital gains	Same as 2030 baseline tax law	Taxed at ordinary income tax rates and subject to self-employment tax
Dividends	Qualified dividends taxed at same rates as realized capital gains; other dividends taxed at ordinary income tax rates	Same as 2030 baseline tax law	The 21% withholding tax collected by the payer corporation is added to dividends, and this amount is taxed at ordinary income tax rates but a nonrefundable credit is allowed for the withholding tax
Interest	Taxed at ordinary income tax rates	Same as 2030 baseline tax law	Same as 2030 baseline tax law
Child tax credit	$1,000 (not indexed) nonrefundable credit for each child under age 17, phased out by $50 for each $1,000 (not indexed) of the excess of modified AGI over: MFJ: $110,000 (not indexed) S & HoH: $75,000 (not indexed) Refundable portion of credit based on 15% of AGI in excess of $3,000 (not indexed); taxpayers with three or more children can use alternative formula Neither portion of the credit is limited by the AMT	$2,000 (not indexed) nonrefundable credit for each child under age 17 and $500 (not indexed) for other dependents, phased out by $50 for each $1,000 (not indexed) of the excess of modified AGI over: MFJ: $400,000 (not indexed) S & HoH: $200,000 (not indexed) Refundable portion of credit for children based on 15% of AGI in excess of $2,400 (not indexed), but limited to $1,400 (not indexed) per child; taxpayers with three or more children can use alternative formula Neither portion of the credit is limited by the AMT Valid SSN required for credit for children	$2,050 (indexed from 2020 level of $2,000) fully refundable credit for each child under age 19 (under age 24 if a full-time student), no income phaseout; no credit for nonchild dependents Additional fully refundable, indexed credit for each of first two children under age 19 (under age 24 if a full-time student); the maximum credit amounts, the thresholds at which the phaseouts begin, and the phaseout rate are shown in text table 2 N/A (AMT permanently repealed) Valid SSN required for both the basic and additional child tax credits

Table A-1 -- Continued

Provision	Baseline Tax Law in 2030	Current (2022) Tax Law Including Temporary and Permanent TCJA Provisions	Graetz Proposal
Education credits	American Opportunity Credit Credit is 100% of first $2,000 (not indexed) and 25% of next $2,000 (not indexed) of tuition, fees, and course materials for first four years of at least half-time enrollment in a postsecondary degree or certificate program; limited to $2,500 (not indexed) per student; up to 40% of credit is refundable Lifetime Learning Credit Nonrefundable credit of 20% for tuition and fees up to $10,000 (not indexed) for enrollment in a post-secondary course; limited to $2,000 (not indexed) per student Phaseouts Both credits phase out pro rata over a $20,000 range for MFJ ($10,000 for S & HoH) (neither range is indexed) at MAGI beginning at: MFJ: $160,000 (not indexed)	Same as 2030 baseline tax law	N/A (all education credits are permanently repealed)
Earned income tax credit (EITC)	Refundable credit for childless taxpayers between ages of 25 and 64 and taxpayers with one, two, or three or more children; credit phases in with earned income, reaches a maximum, then phases out with the higher of earned income or AGI: Childless Phase-in rate: 7.65% Phase-in ends: $7,320 (indexed) Max credit: $560 (indexed) Phaseout begins: $9,160 (indexed) Phaseout rate: 7.65% One Child Phase-in rate: 34% Phase-in ends: $10,980 (indexed) Max credit: $3,733 (indexed) Phaseout begins: $20,130 (indexed) Phaseout rate: 15.98% Two Children Phase-in rate: 40% Phase-in ends: $15,410 (indexed) Max credit: $6,164 (indexed) Phaseout begins: $20,130 (indexed) Phaseout rate: 21.06% Three or More Children Phase-in rate: 45% Phase-in ends: $15,410 (indexed) Max credit: $6,935 (indexed) Phaseout begins: $20,130 (indexed) Phaseout rate: 21.06% Married Couples All phaseout ranges begin $6,130 (indexed) higher than shown above Credit is not limited by the AMT	Same as 2030 baseline tax law	N/A (EITC permanently replaced by the expanded child tax credit [see above] and new earnings credit [see text table 3])

Table A-1 -- Continued

Provision	Baseline Tax Law in 2030	Current (2022) Tax Law Including Temporary and Permanent TCJA Provisions	Graetz Proposal
Net investment income tax (surcharge on capital gains, dividends, interest, rents, royalties, etc.)	For MFJ taxpayers with MAGI over $250,000 (unmarried taxpayers with MAGI over $200,000) (neither level is indexed), a surcharge rate of 3.8% applies to the lesser of net investment income and the amount by which MAGI exceeds the threshold	Same as 2030 baseline tax law	N/A (NIIT permanently repealed)
		AMT Parameters	
Exemption amounts	MFJ: $93,600 (indexed) S & HoH: $60,100 (indexed)	MFJ: $118,100 (indexed) S & HoH: $73,900 (indexed)	N/A (AMT permanently repealed)
Exemption phaseout thresholds	MFJ: $178,300 (indexed) S & HoH: $133,700 (indexed)	MFJ: $1,079,800 (indexed) S & HoH: $539,900 (indexed)	
28% bracket threshold	$208,000 (indexed)	$206,100 (indexed)	
Limitation on personal credits	All refundable and nonrefundable personal credits are allowed against both regular tax and AMT liability	Same as 2030 baseline tax law	
		Estate Tax Parameters	
Exemption amount	$6,090,000 (indexed)	$12,060,000 (indexed)	Same as 2030 baseline tax law
Top rate	40%	Same as 2030 baseline tax law	Same as 2030 baseline tax law
		Payroll Tax Parameters	
Base	OASDI: Wages & self-employment up to cap of $147,000 (indexed) HI: Wages & self-employment (no floor or cap)	Same as 2030 baseline tax law	Same as 2030 baseline tax law
Rate	OASDI: 6.2%[a] HI: 1.45%[a] + 0.9% surcharge[b]	Same as 2030 baseline tax law	Same as 2030 baseline tax law

Sources: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2).
Notes: TCJA = Tax Cuts and Jobs Act; MFJ = married filing jointly; HoH = head of household; N/A = not applicable; PEP = personal exemption phaseout; AGI = adjusted gross income; NIIT = net investment income tax; S = single; AMT = alternative minimum tax; MAGI = modified adjusted gross income; OASDI = Old Age, Survivors, and Disability Insurance; HI = Hospital Insurance.

[a] Rate applies to both employers and employees.

[b] Surcharge applies to MFJ taxpayers with MAGI exceeding $250,000 (unmarried taxpayers with MAGI exceeding $200,00) (neither threshold is indexed).

TABLE A-2
Parameters of the Corporate Income Tax and the Business Provisions of the Individual Income Tax under the Baseline Tax Law Scheduled to be in Effect in 2030, Current (2022) Tax Law including Temporary and Permanent TCJA Provisions, and the Graetz Proposal
Dollar amounts are in 2022$

Provision	Baseline Tax Law in 2030	Current (2022) Tax Law including Temporary and Permanent TCJA Provisions	Graetz Proposal
Corporate income tax rate	21%	21%	21%
Interest deduction limitation	Deduction for business interest limited to sum of (1) business interest income, (2) 30% of taxable income adjusted to disregard nonbusiness income, business interest income and expense, any NOL, and any pass-through deduction, and (3) floor financing interest of auto dealers; limitation applies only to businesses with average receipts over prior three years of $25 million or more or electing businesses involved in real property development	Same as 2030 baseline tax law, except deductions for depreciation, amortization, and depletion are temporarily also disregarded in computing adjusted taxable income	Same as current (2022) tax law
Pass-through deduction	N/A	Through 2025 a 20% deduction, with some restrictions, is allowed for income from pass-throughs	Same as 2030 baseline tax law (i.e., there is no pass-through deduction)
Research and experimental expenditures	Amortized over five years	Expensed prior to 2022; five-year amortization required for expenses incurred in 2022 and later years	Permanently expensed
Depreciation	Generally MACRS, but small businesses can expense equipment	100% bonus depreciation allowed for investments in property with a MACRS life of 20 years or less	Generally ADS, but small businesses can expense equipment
Opportunity zones	N/A	Deferral or exclusion of capital gains reinvested in designated areas	Permanently repealed
Gains on like-kind exchange	Gains are deferred on exchanges of certain property for a like-kind property	Same as 2030 baseline tax law	Taxed at time of exchange

Table A-2 -- Continued

Provision	Baseline Tax Law in 2030	Current (2022) Tax Law including Temporary and Permanent TCJA Provisions	Graetz Proposal
International provisions	General Rules US corporations are taxed on income received from foreign sources, with a credit for foreign taxes paid on the income (see below)	Same as 2030 baseline tax law	Revenue-neutral reform of the entire international system to make it simpler and more economically efficient, but because these reforms are intended to be revenue (and therefore very likely distributionally) neutral, and would require a major effort to design, they are not specified as part of this plan
	Deferral and Subpart F Generally, the income earned by a foreign subsidiary is not taxed by the US until the income is distributed as a dividend; however, certain passive income and income from transactions among related parties is deemed distributed under Subpart F	Same as 2030 baseline tax law	
	Dividends Deduction allowed for 100% of dividends (including Subpart F–deemed distributions) received from foreign subsidiaries; no foreign tax credit or deduction allowed	Same as 2030 baseline tax law	
	Global Intangible Low-Taxed Income (GILTI) A fraction (62.5%) of GILTI is taxed currently, much like Subpart F income, but only 80% of the related foreign taxes is allowed as a foreign tax credit	Same as 2030 baseline tax law, except taxable fraction is 50% through 2025	
	Foreign-Derived Intangible Income (FDII) A deduction is allowed for a fraction (21.875%) of FDII	Same as 2030 baseline tax law, except deduction fraction is 37.5% through 2025	
	Base Erosion and Anti-abuse Tax (BEAT) The additional BEAT is imposed on the taxable income of large corporations, adjusted to exclude deductions for amounts paid or accrued to related foreign parties; the rate is 12.5%, with the tax reduced by any related regular US corporate income tax (net of credits)	Same as 2030 baseline tax law, except BEAT rate is 10% through 2025 and is reduced by any related regular US tax corporate income tax before credits	
Foreign tax credit	Credit (in lieu of a deduction) for income taxes paid to a foreign government on income earned outside the US; limited to US tax on that income	Same as 2030 baseline tax law	Same as 2030 baseline tax law
Research credit	Credit for noncapital expenses related to certain research and development activities	Same as 2030 baseline tax law	Same as 2030 baseline tax law
All other business credits	Numerous credits for a range of activities including certain investments, low-income housing, energy production- and efficiency-related, and orphan drugs	Same as 2030 baseline tax law	N/A (all other business credits permanently repealed)
Corporate tax integration	Income earned by C-corporations is subject to the corporate income tax at a 21% rate; this income may also be subject to a second layer of taxation at the individual shareholder level, whether on dividends or on capital gains from the sale of shares	Same as 2030 baseline tax law	Eliminates double taxation of dividends; dividends paid by US-resident corporations deductible from taxable income, but corporations required to withhold 21% of dividends paid to all shareholders; shareholders allowed a nonrefundable credit for the 21% tax withheld from their dividends

Notes: TCJA = Tax Cuts and Jobs Act; NOL = net operating loss; MACRS = modified accelerated cost recovery system; ADS = alternative depreciation system.

APPENDIX B. INDIVIDUAL INCOME TAX BRACKETS AND RATES

TABLE B-1

Tax Brackets (in $2022) and Rates under the Baseline 2030 Tax Law and the Graetz Proposal

(All taxpayers assumed to claim the standard deduction and no credits)

AGI in 2022		Ordinary income		Capital gains	
Over	But not over	Baseline 2030 Tax Law	Graetz proposal	Baseline 2030 Tax Law	Graetz proposal
Single filers					
0	11,550[a]	0%	0%	0%	0%
11,550	21,900	10%	0%	0%	0%
21,900	52,350[b]	15%	0%	0%	0%
52,350	53,600	15%	16%	0%	16%
53,600	104,700	25%	16%	15%	16%
104,700	113,350	25%	26%	15%	26%
113,350	157,050	28%	26%	15%	26%
157,050	223,850	28%	33%	15%	30%
223,850	314,100	33%	33%	15%	30%
314,100	418,900	33%	36%	15%	30%
418,900	473,150	33%	37%	15%	30%
473,150	475,050	35%	37%	15%	30%
475,050	and over	39.6%	37%	20%	30%
Married couples filing jointly with no dependents					
0	23,100[a]	0%	0%	0%	0%
23,100	43,800	10%	0%	0%	0%
43,800	104,700[b]	15%	0%	0%	0%
104,700	107,200	15%	16%	0%	16%
107,200	192,750	25%	16%	15%	16%
192,750	209,400	28%	16%	15%	16%
209,400	281,600	28%	16%	15%	16%
281,600	314,100	33%	26%	15%	26%
314,100	484,700	33%	33%	15%	30%
484,700	544,500	35%	33%	15%	30%
544,500	628,200	39.6%	33%	20%	30%
628,200	837,800	39.6%	36%	20%	30%
837,800	and over	39.6%	37%	20%	30%

Source: Urban-Brookings Tax Policy Center.

(a) The lowest AGI tax bracket under baseline 2030 tax law is the standard deduction plus personal exemption amounts, which (in 2022$) is $7,050 + $4,500 (= $11,550) for single filers and $14,100 + $9,000 (= $23,100) for married couples filing jointly with no children or other dependents. These lowest brackets do not include the additional standard deduction for elderly and blind taxpayers (which is repealed under the Graetz proposal).

(b) The lowest AGI tax bracket under the Graetz proposal is (in 2022$) the standard deduction amount of $52,350 for single filers and $104,700 for married couples filing jointly. The lowest AGI tax bracket under the Graetz proposal begins below the end of the 15% bracket under baseline 2030 tax law by $1,250 (in 2022$) for single filers and by $2,500 for married couples filing jointly.

APPENDIX C. DETAILED REVENUE TABLE

TABLE C-1
Revenue and Outlay Effects of the Provisions of the Graetz Proposal in 2030
Individual income tax parameters are in 2022$

Provision	Amount ($ billions)
Individual Income Tax Provisions[a]	
Repeal the AMT	−73.4
Repeal the 3.8% NIIT	−24.1
Tax rates of 16%, 26%, 33%, 36%, and 37%[2]	170.4
Increase standard deduction amounts to $52,350 (single)/$104,750 (joint) (indexed)[c]	−1,096.3
Repeal personal exemptions	114.9
Child tax credit increased to $2,050, indexed for inflation, made fully refundable, extended to children under 19 and students under 25, income phaseout removed	−189.1
Additional child tax credit increased, indexed, made fully refundable[d]	−71.5
Earnings credit[e]	−262.5
State and local tax deduction capped at $10,450 (indexed)	74.3
Mortgage interest deduction limited to interest on $750,000 (not indexed) of acquisition debt	1.5
Repeal the limitation on itemized deduction (the Pease limitation)	−11.4
Limit of $1,047,350 (indexed) on the step-up of basis of appreciated property held at death	15.3
Carried interest taxed as business income and subject to SECA tax	0.5
Repeal the EITC and education credits	98.5
Total for Individual Income Tax Provisions	−1,252.
6 Corporate and Noncorporate Business Income Tax Provisions[f]	
ADS depreciation method required (expensing of equipment retained for small businesses)	45.6
Repeal all business credits except the R&E and foreign tax credits	25.5
Other corporate and noncorporate business income tax provisions[g]	6.9
Corporate integration	−40.2
Total for Corporate and Noncorporate Business Income Tax Provisions	37.8
Value -Added Tax (VAT) of 10%	
Gross VAT revenue	1,970.1
Offsets (reductions in revenues from individual income, corporate income and payroll taxes, customs duties, and Federal Reserve payments to the US Treasury due to the effect of the VAT on prices and incomes)	−583.3
Net VAT Receipts	1,386.8
Change in Nominal Federal Outlays	
Grants to state and local governments	163.7
Net Change in Nominal Federal Spending	163.7
Change in the Federal Deficit (−) or Surplus	8.3

Sources: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2) and TPC estimates.
Notes: AMT = alternative minimum tax; NIIT = net investment income tax; SECA = Self-Employed Contributions Act; EITC = earned income tax credit; ADS = alternative depreciation system; R&E = research and experimentation.
a See table A-1 in appendix A for a full description of these provisions. Includes refundable portion of credits.
b These rates apply to all income, including capital gains and dividends, except that the rate on capital gains is capped at 30 percent. See table B-1 in appendix B for the full rate structure.
c The head of household filing status and the additional standard deductions for age and blindness are repealed.
d See table 2 for credit parameters.
e See table 3 for credit parameters.
f See table A-2 in appendix A for a complete description of these provisions.
g Includes repeal of the tighter interest deduction limitation that went into effect in 2022, reinstatement of full expensing of research and experimentation expenditures, repeal of opportunity zones, and current taxation of gains on like-kind exchanges.

APPENDIX D. DETAILED DISTRIBUTIONAL TABLE

TABLE D-1

Distribution of Federal Tax Change due to the Graetz Proposal in 2030

Expanded Cash Income Percentile	Percentage Change in After-Tax Income[a]			
	Individual Income Tax Provisions (includes the new earnings credit)	Corporate and Noncorporate Business Provisions	Value-Added Tax (net of offsets)	Total Changes
Lowest quintile	12.2	−0.1	−5.5	6.5
Second quintile	8.7	−0.1	−6.0	2.6
Middle quintile	8.3	0.0	−6.8	1.4
Fourth quintile	7.4	0.0	−7.1	0.3
Top quintile	3.0	0.1	−6.1	−3.0
All	5.7	0.0	−6.4	−0.6
Addendum				
80–90	5.9	0.0	−6.9	−1.0
90–95	4.5	0.0	−6.2	−1.7
95–99	2.9	0.0	−5.8	−2.9
Top 1 percent	−1.3	0.2	−5.3	−6.4
Top 0.1 percent	−3.0	0.3	−5.0	−7.7

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2).

[a] Provisions are stacked in the order listed.

APPENDIX E. CORPORATE INTEGRATION PROPOSAL

CORPORATE INTEGRATION PROVISION

The Graetz proposal includes a provision that would integrate the individual and corporate income taxes by allowing corporations to deduct dividends paid to shareholders. The plan is modeled on a proposal developed in 2014 by the Republican staff of the Senate Finance Committee[42] for Senator Orrin Hatch, who was then a member and later the chairman of that committee. This appendix explains the integration provision and how TPC estimated its revenue and distributional effects and also provides estimates of the combined revenue and distributional effects of the integration provision and the change in the tax rate on dividends under the Graetz proposal, which increased the top rate on dividends to 37 percent from 23.8 percent (including the net investment income tax, or NIIT) under baseline tax law.

Summary of Integration Provision

US-resident corporations would be allowed a deduction for dividends paid to shareholders, but would also be required to withhold a 21 percent tax on shareholders from dividends. Taxable US individual shareholders would include the gross dividend they receive (the cash dividend plus the withholding tax) in taxable income and could then claim a nonrefundable credit for the associated 21 percent withholding tax.[43] Tax-exempt shareholders, including foreign residents, tax-exempt institutions, individuals holding shares through qualified retirement plans, and individuals with no positive income tax liability, would not receive any credit for the withholding tax. For these shareholders, the withholding tax would operate as a final flat-rate 21 percent tax on the dividends they receive, just as the current corporate income tax acts as a final flat-rate tax on these individuals.

In cases where corporations have sufficient taxable income against which to offset the entire dividend deduction, the integration proposal would have no effect on the tax burden on dividends paid to shareholders with no individual income tax liability. In these circumstances, the withholding tax on shareholders would fully offset the lower corporate income tax from the dividend deduction. However, reported corporate income tax liability would decline, which would increase the net profits that corporations could report to their shareholders, as the withholding tax would be a tax on shareholders, not corporations.

Because dividends would be deductible at the corporate level, they would be taxable at ordinary income tax rates. Shareholders with positive tax liability would benefit from integration, however, because they could claim a portion of the gross dividend they receive (the 21 percent

[42] Republican Staff, Committee on Finance, United States Senate (2014).

[43] The withholding tax would be added to taxable income of shareholders, but would not be included in adjusted gross income (AGI). The exclusion of the withholding tax from AGI was necessary to prevent the integration plan from increasing tax liability on many lower- and middle-income taxpayers. This tax increase from the integration proposal would otherwise have occurred under the Graetz plan because, with the much higher standard deduction and more generous refundable credits under the plan, many individual taxpayers with positive AGI would have no federal income tax liability. Adding the withholding tax to AGI could increase their net tax liability by reducing other credits they receive, but they would be not able to claim credit for the withholding if their net tax liability was zero. To fix this problem, we assumed the proposal would exclude the withholding tax from AGI, while still including it in taxable income.

withholding tax) as a credit to offset their tax liability on the dividend, and if the credit exceeded that liability the excess would reduce any tax liability on income from other sources.[44]

Corporations without sufficient taxable income to claim the entire dividend deduction would be able to carry forward unused deductions to offset corporate taxable income in future years. But they would still be required to remit the 21 percent withholding tax on dividends. For such corporations with insufficient taxable income, the tax burden on dividends paid to tax-exempt shareholders would be higher than under current law. But because other portions of the Graetz plan (in particular, changes in depreciation rules) significantly increase corporate taxable income, very few corporations would be limited in their use of the dividend deduction, so at most there would be only a modest increase in the tax burden on nonprofits from the limitation of the deduction to corporate taxable income.

US-resident individual shareholders receiving dividends from foreign-resident corporations would not benefit from the proposal because those corporations would not receive a dividend deduction (nor would they be required to withhold and remit the 21 percent dividend withholding tax). The new 21 percent dividend withholding tax would apply in addition to the current withholding tax on payments of dividends to foreigners at the current 30 percent statutory rate (or lower rates specified in double taxation agreements); that is, the credit for the new 21 percent withholding tax would not be allowed against the current withholding tax.

Estimation of Effects of the Integration Provision

TPC's starting point for estimating the provision was the projection of qualified dividends reported on individual tax returns to tax year 2030 in TPC's individual income tax model. We then reduced each individual's dividends by about 15 percent based on an estimate of the share of total qualified dividends that US residents receive from foreign-resident corporations.

We assumed that the provision would raise each shareholder's taxable dividends by $1/(1 - 0.21)$, or 1.266, times the amount of cash dividends they currently receive, even though their cash dividends would be unchanged. This assumption effectively holds corporate retained earnings fixed and raises gross dividends to shareholders by the amount of tax saving associated with the deduction of those dividends. However, from the shareholders' perspective this tax saving is offset by the 21 percent withholding tax, so their cash dividends are unchanged. This is the same assumption we would use to estimate an economically equivalent proposal to allow shareholders to claim imputation credits for corporate income taxes attributable to the cash dividends they receive and then include those credits in their taxable income. Under that type of proposal, we would assume cash dividends remained fixed and that gross (pretax) dividends would increase by $1/(1 - t)$ times cash dividends, where t = the corporate income tax rate.

We simulate the revenue and distributional effects of the integration provision by computing the effect on individual income tax liability of increasing taxable dividends that each tax unit receives by 1.266 times their reported cash dividends (reduced by 15 percent for the share that comes from foreign corporations) and then allowing them to claim a nonrefundable tax credit

[44] Withholding credits in excess of individual income tax liability could be carried forward to future tax years.

equal to 21 percent of taxable dividends (or 26.6 percent of initial reported dividends).[45] We allocate the benefit of the resulting tax cut to shareholders.[46]

Because we believe that with the broader tax base under the Graetz plan corporations would be able to claim a full deduction for almost all corporate dividends, we did not make an adjustment for any increased revenue associated with imposing a withholding tax on dividends for which corporations do not receive a full deduction in the current year.

Revenue and Distributional Effects

We estimate that the integration provision, excluding the increase in the tax rate on dividends, would reduce revenues raised by the Graetz plan by $40 billion in tax year 2030, compared with the Graetz plan without integration. The benefit of integration itself would be concentrated among high-income tax units (table E-1). Taxpayers in the top 1 percent of the income distribution would receive more than half the benefits, and their after-tax income would increase by 0.7 percent, compared to 0.3 percent for all taxpayers in the top quintile of the income distribution, and 0.2 percent for all taxpayers.

The combined effect on revenues of the integration provision, the taxation of dividends at ordinary rates, and repealing the NIIT for dividends is a small revenue loss (−$8.9 billion). Taxpayers in the top 10 percent of tax units would see an increase in after-tax income of 0.1 percent for the 90th to 99th percentiles, 0.2 percent for the top 1 percent, and 0.3 percent for the top tenth of 1 percent, that is, the top 0.1 percent of tax units (table E-2).

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[45] Under conventional scoring methods, the reduction in corporate tax liability from the deduction of corporate dividends would be treated as a corporate tax cut, offset by an increase in individual taxes from the (creditable) withholding tax. In effect, it would be treated the same way as taxable wages on which the tax is collected through withholding; the deduction of wages reduces corporate liability, while the withholding tax is part of individual tax liability.

[46] TPC's standard assumption for the incidence of a corporate tax cut is that 60 percent of the benefit accrues to shareholders, 20 percent to all capital owners, and 20 percent to labor (see Nunns 2012. The allocation of a portion of the benefit to all capital owners is based on the assumption that lower corporate taxes would cause capital to flow from the noncorporate sector to the corporate sector, raising pretax returns in the former and lowering them in the latter. The allocation of a portion of the benefit to labor is based on the assumption that lower taxes on corporate investments in the US would cause capital to flow to the US from abroad, increasing capital per worker in the US and thereby raising the productivity and wages of US workers. But the corporate integration provision would only reduce taxes on dividends paid to the estimated 25 percent of shareholders of US corporations that are taxable US residents (Rosenthal and Austin 2016), which we believe would not significantly reduce the marginal cost of capital to corporations. Instead, it would only provide a benefit to the minority of shareholders who receive a direct tax cut from the proposal.

Table E-1
Distribution of Federal Tax Change Due to Corporate Tax Integration Provision
Baseline: All Individual Income Tax Provisions in the Graetz Proposal (Including Taxation of Dividends at Ordinary Rates) Except the Corporate Tax Integration Provision
Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2030 [1]
Summary Table

Expanded Cash Income Percentile [2,3]	Tax Units with Tax Increase or Cut [4]				Percent Change in After-Tax Income [5]	Share of Total Federal Tax Change	Average Federal Tax Change ($)	Average Federal Tax Rate [6]	
	With Tax Cut		With Tax Increase						
	Pct of Tax Units	Avg Tax Change ($)	Pct of Tax Units	Avg Tax Change ($)				Change (% Points)	Under the Proposal
Lowest Quintile	0.0	0	0.0	0	0.0	0.0	0	0.0	-7.8
Second Quintile	0.1	-230	0.0	0	0.0	0.0	0	0.0	1.6
Middle Quintile	5.2	-730	0.0	0	0.0	3.9	-40	0.0	7.8
Fourth Quintile	14.7	-840	0.0	0	0.1	10.3	-120	-0.1	12.4
Top Quintile	35.9	-3,440	0.0	0	0.3	85.8	-1,230	-0.2	23.2
All	8.7	-2,350	0.0	0	0.2	100.0	-200	-0.1	15.6
Addendum									
80-90	24.6	-1,090	0.0	0	0.1	9.6	-270	-0.1	16.4
90-95	38.0	-1,480	0.0	0	0.2	9.7	-560	-0.1	19.2
95-99	54.5	-2,100	0.0	0	0.2	15.0	-1,140	-0.2	24.1
Top 1 Percent	74.6	-21,690	0.0	0	0.7	51.5	-16,180	-0.5	31.4
Top 0.1 Percent	87.4	-112,650	0.0	0	1.0	32.2	-98,470	-0.7	32.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2).
(1) Calendar year. Baseline is all individual income tax provisions in the Graetz Proposal (including taxation of dividends at ordinary rates) except corporate tax integration. Proposal would eliminate the double taxation of dividends by: (i) allowing US resident corporations a deduction for dividends paid, (ii) requiring corporations to withhold 21% of all dividends paid, and (iii) allowing shareholders a non-refundable credit for the 21% tax withheld from their dividends.
(2) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm
(3) The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2019 dollars): 20% $30,200; 40% $59,200; 60% $103,500; 80% $183,200; 90% $264,000; 95% $382,500; 99% $915,400; 99.9% $4,199,600.
(4) Includes tax units with a change in federal tax burden of $10 or more in absolute value.
(5) After-tax income is expanded cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); estate tax; and excise taxes.
(6) Average federal tax (includes individual and corporate income taxes, payroll taxes for Social Security and Medicare, the estate tax, and excise taxes) as a percentage of average expanded cash income.

Table E-2
Distribution of Federal Tax Change Due to Corporate Tax Integration Provision Combined with Increase in Tax Rates on Dividends
Baseline: All Individual Income Tax Provisions in the Graetz Proposal Except the Corporate Tax Integration Provision and the Increased Tax Rates on Dividends
Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2030 [1]
Summary Table

Expanded Cash Income Percentile [2,3]	Tax Units with Tax Increase or Cut [4]				Percent Change in After-Tax Income [5]	Share of Total Federal Tax Change	Average Federal Tax Change ($)	Average Federal Tax Rate [6]	
	With Tax Cut		With Tax Increase						
	Pct of Tax Units	Avg Tax Change ($)	Pct of Tax Units	Avg Tax Change ($)				Change (% Points)	Under the Proposal
Lowest Quintile	0.0	0	0.0	0	0.0	0.0	0	0.0	-7.8
Second Quintile	0.1	-30	0.0	0	0.0	0.0	0	0.0	1.6
Middle Quintile	2.7	-110	0.1	1,190	0.0	0.8	*	0.0	7.8
Fourth Quintile	9.4	-260	0.5	730	0.0	7.6	-20	0.0	12.3
Top Quintile	24.0	-1,330	3.2	620	0.1	91.5	-300	-0.1	22.7
All	5.6	-900	0.6	660	0.0	100.0	-50	0.0	15.4
Addendum									
80-90	15.8	-420	1.4	660	0.0	9.0	-60	0.0	16.3
90-95	28.3	-690	2.7	570	0.1	13.6	-180	0.0	19.0
95-99	33.0	-870	7.5	510	0.1	14.3	-250	0.0	23.8
Top 1 Percent	56.4	-7,120	9.1	1,010	0.2	54.6	-3,930	-0.1	30.3
Top 0.1 Percent	76.0	-37,060	8.8	4,520	0.3	39.6	-27,760	-0.2	30.8

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0319-2).
(1) Calendar year. Baseline is all individual income tax provisions in the Graetz proposal except corporate tax integration and increased rates on dividends. Proposal would add corporate tax integration, tax dividends at the same rates as ordinary income, and repeal the net investement income tax for dividends (the NIIT is repealed for all other types of income in the baseline).
(2) Includes both filing and non-filing units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm
(3) The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2019 dollars): 20% $30,200; 40% $59,200; 60% $103,500; 80% $183,200; 90% $264,000; 95% $382,500; 99% $915,400; 99.9% $4,199,600.
(4) Includes tax units with a change in federal tax burden of $10 or more in absolute value.
(5) After-tax income is expanded cash income less: individual income tax net of refundable credits; corporate income tax; payroll taxes (Social Security and Medicare); estate tax; and excise taxes.
(6) Average federal tax (includes individual and corporate income taxes, payroll taxes for Social Security and Medicare, the estate tax, and excise taxes) as a percentage of average expanded cash income.

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