Microsimulation Modeling Analysis of the TCJA

by Eric Cook

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In this article, Cook discusses state conformity with the Tax Cuts and Jobs Act and the effects its provisions might have on state revenue. He addresses changes for both corporate and individual taxpayers and international provisions such as those for global intangible low-taxed income and foreign-derived intangible income.

On December 22, 2017, the Tax Cuts and Jobs Act was signed into law. This is the most comprehensive tax reform legislation enacted in the United States since the Tax Reform Act of 1986. The TCJA affects the amount of state individual income tax and corporation income tax many taxpayers pay. Soon after the TCJA's passage, two states contracted with Chainbridge Software LLC (Chainbridge) to develop modules of the Chainbridge PolicyLinks system for individual and corporation income tax to assist in their evaluation of the TCJA's impact on their state revenues. This paper describes the process that was used to evaluate the impact that the TCJA would have on the states' revenues and residents, illustrated through the application of the approach to a hypothetical state.

Chainbridge has been involved in the development and delivery of tax policy analysis tools for state government clients for nearly two decades, including Alabama, California, Connecticut, the District of Columbia, Maine, Minnesota, Mississippi, Rhode Island, Vermont, and Virginia. To analyze the TCJA's revenue impact on state taxpayers, Chainbridge began with the Joint Committee on Taxation's analysis of the TCJA, publication JCX-67-17,[1] referred to as the "JCT Table." This is the official source for the federal government's revenue scoring of the TCJA and lists the various provisions under three major headings: individual, business, and international.

Determine Level of State Conformity and Impact

The first step in the revenue estimating process was to review each TCJA provision and determine whether it would affect state taxes. A review of the provisions from both a conformity and impact perspective determined which provisions would have no impact, a minimal impact, a positive impact, or a negative impact on state revenue. An example of the result of this review for the hypothetical state is presented in the Appendix.

Modeling Approach for Revenue Estimates for Individual Provisions

For analyzing the revenue impact of the TCJA on individual income tax payers, we used two estimation methods: on-model and off-model. The individual income tax model uses a microsimulation approach in which the underlying microdatabase is the population of state tax returns matched with federal tax returns.

[1] Joint Committee on Taxation, "Estimated Budget Effects of the Conference Agreement for H.R. 1, the 'Tax Cuts and Jobs Act,'" JCX-67-17 (Dec. 18, 2017).

This microdatabase was extrapolated to future tax years and provisions were simulated to assess the resulting change in state tax revenue. These data facilitate the analysis of a wide range of tax policies at the state and federal levels.

We reviewed the individual TCJA provisions to determine which would be evaluated using the individual income tax model. We scored some provisions using an off-model approach because relevant microdata were unavailable. The off-model approach generally involved using ratios that converted the federal revenue estimates produced by the JCT to state-level estimates. Almost all the major TCJA provisions were scored using an on-model approach. The result of this review process is presented in Appendix 1.

The microsimulation approach relies on the computation of all lines of the state and federal forms under two different tax policies for every taxpayer in the population. The two policies are frequently current law and a tax policy alternative. The income and tax differences for the two policies are summed across all taxpayers to assess the tax impact of the alternative policy. In this way, the effect on state and federal taxes can analyzed.

In our experience if there are data to support a tax policy analysis, then the individual income tax model would produce superior results to any alternative. If the individual income tax model does not contain data to support a tax policy analysis, then an off-model approach to revenue estimation may be appropriate.

Off-Model Method

The off-model approach for the individual portion of the provisions relied on the ratios of: (1) state residents' federal adjusted gross income to nationwide federal AGI and (2) state residents' historical state tax liability to state residents' historical federal tax liability. The second ratio was adjusted to account for the reduction in federal individual income tax rates under the TCJA. The multiplication of these two ratios, the individual share for the provision, and the JCT revenue estimate produced the off-model individual share of the state-level revenue estimates.

Stacking Order for On-Model Estimates

There are several interactions among the individual provisions of the TCJA. As described by the JCT[2]:

> When one proposal would modify two or more provisions within the Internal Revenue Code, the result of the combination of changes often produces a greater or lesser revenue effect than the sum of the revenue effects of each proposal if enacted separately. If this interaction is ignored, the analysis is incomplete; if the interaction is assigned to any one element of a proposal, the revenue estimate for that proposal may be misleading.
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> The proper interpretation of the revenues attributed to specific proposals and the accompanying interaction are determined by the "stacking order" of the analysis. There are two principal methods of presenting these results in line-by-line revenue tables, and it is important to note that the numbers in each type of presentation may appropriately answer different questions but reflect the same estimated revenue effect.
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> The first of these methods provides a revenue estimate for each proposal in isolation against present law, assuming none of the other proposals is adopted. . . . This procedure is usually the most efficient when only a few proposed changes are involved.
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> . . .
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> A second method requires that each proposal be estimated as if all other proposals have already been enacted . . . The Joint Committee staff utilized this second method to analyze the Tax Reform Act of 1986.

The "stacking order" method adopted for purposes of generating the on-model estimates for the hypothetical state was the same as the

[2] JCT, "Methodology and Issues in the Revenue Estimating Process," JCX-2-95 (Jan. 23, 1995).

second method referred to above. It was the same stacking order the JCT used to estimate the TCJA's federal revenue impact. Therefore, the first simulation is run against the prior law baseline, the second simulation is run against the first simulation, the third simulation is run against the second, and so on.

Hypothetical State Revenue Impact

The TCJA provisions having the most significant revenue effects on the hypothetical state include:

- modifications to the standard deduction;
- loss limitation for noncorporate taxpayers; and
- changes in itemized deductions.

We estimated that the individual provisions of the TCJA affect hypothetical state residents as follows:

- there is an overall federal tax decrease across all income classifications;
- there is an overall state tax increase across all income classifications;
- there is an overall combined federal and state tax decrease across all income classifications; and
- because the model assumed that taxpayers would seek to minimize their combined federal and state tax, many taxpayers who would otherwise switch from itemizing to claiming the standard deduction for federal tax minimization purposes alone would continue to itemize to achieve a lower combined tax liability.

Example Simulation — Impact of the Standard Deduction Modification

For tax year 2017, the amount of the basic federal standard deduction was $6,350 for single individuals and married individuals filing separate returns, $9,350 for heads of households, and $12,700 for married individuals filing a joint return and surviving spouses.

The TCJA temporarily increases the basic federal standard deduction for individuals across all filing statuses. The federal standard deduction is temporarily increased to $24,000 for married individuals filing a joint return, $18,000 for head-of-household filers, and $12,000 for all other individuals. The additional federal standard deduction for the elderly and the blind was not changed. This change is effective for tax years beginning after December 31, 2017, and does not apply to tax years beginning after December 31, 2025.

When completing a federal return, individuals may elect to either claim the standard deduction or itemize their deductions. In many states, individuals are bound by that choice on the state return. Therefore, in these states, if an individual itemizes for federal tax purposes, that person must also itemize for state tax purposes.

For the individual provisions, if federal taxes were the only consideration, the significant increase in the federal standard deduction would cause many taxpayers who would ordinarily itemize deductions to switch and take the standard deduction. For purposes of this paper, the model minimized each taxpayer's combined federal and state tax liability and found that many who would otherwise switch for federal tax purposes would continue to itemize to minimize their combined federal and state tax liability.

The following example assumes that taxpayers are required to either itemize or take the standard deduction on both federal and state tax returns. To simulate a taxpayer minimizing overall federal and state taxes, the model considers every federal individual income tax policy change enacted by the TCJA.

For each taxpayer in the database, the model:

- computes federal tax and then state tax assuming that the taxpayer itemizes for federal tax purposes;
- computes federal tax and then state tax assuming that the taxpayer takes the standard deduction for federal tax purposes; and
- compares the tax based on claiming itemized deductions to the tax based on claiming the standard deduction and then takes the smaller of the two.

Assuming all taxpayers would minimize their combined federal and state tax liability, we find that in tax year 2018, about 15 percent of all hypothetical state filers would switch from itemizing to taking the standard deduction. The key finding, however, is that if the federal result controlled the decision, the revenue increase for

the state would be 100 percent higher than if the taxpayers minimized their combined federal and state tax liability.

Example Extrapolation Issue — Federal Earned Income Credit

Many states have an earned income tax credit that piggybacks on the federal EITC. We have simulated the baseline growth of the federal EITC for future years with the individual income tax model using what is referred to as a stage 1 extrapolation method. This method applies scalar adjustments to major income and deduction items while not controlling for the distribution of taxpayers by income class. The results from these simulations for state residents are such that the total number of returns claiming the EITC and the overall amount of this credit decreases modestly for each year from 2018 to 2024. These results did not seem reasonable.

A review of the recent historical growth of the federal EITC for hypothetical state residents revealed there is no consistent pattern — some years show declines in the EITC and other years show substantial increases. While several factors affect the growth of the EITC, the two major variables are the growth in wages and inflation. Given forecasts for wage growth and inflation, one would expect modest growth in the number of returns claiming the EITC and growth in the total amount of the EITC.

This extrapolation problem was solved through a two-step process. The first step used an approach that statistically estimated the relative importance of the two variables that are the primary drivers of growth in the number of returns claiming and the amount of the EITC. Once this relationship was established, the forecasts of the primary drivers were used to develop forecasts for the number of returns claiming the federal EITC and the associated credit amounts.

The second step was to apply a stage 2 nonlinear optimization algorithm that was used to achieve the targeting of federal EITC items. The forecasting of the number of returns claiming the federal EITC and the associated credit amounts were items that the stage 2 extrapolation easily handled. The application of this extrapolation resulted in modest growth in the number of returns claiming the EITC and modest growth in the EITC amounts.

Modeling Approach for Revenue Estimates for Business Provisions

As with the TCJA's individual provisions, both on-model and off-model estimating approaches were used to analyze the revenue impact of the TCJA on the hypothetical state's business taxpayers. The corporate income tax model uses a microsimulation approach under which the underlying microdatabase is the population of state corporate tax returns matched with federal pro-forma tax returns.

This microdatabase was extrapolated to future tax years (2018 through 2024) and provisions were simulated to assess the resulting state tax revenue changes. These data facilitate the analysis of a wide range of tax policies at the state levels.

This section addresses the estimated revenue impact of the TCJA's business provisions on a hypothetical state, as shown in the Appendix. Most TCJA business provisions affect both corporations and passthrough entities, including partnerships and LLCs. Therefore, the state revenue impact includes the effect on both individual and corporate income tax revenues. The JCT revenue estimates made assumptions about the split between corporate and individual taxes resulting from the business provisions of the TCJA. The following table presents the JCT splits by major provision.

JCT Corporate/Individual Splits for Major Business Provisions

Provision	Corporate Share	Individual Share
Bonus Depreciation	70%	30%
179 Expensing	10%	90%
Net Interest Deduction	95%	5%
Small Business Accounting Changes	30%	70%
Modification to NoLs	90%	10%
Amortization of Research	75%	25%
Repeal Domestic Production Deduction	75%	25%

In developing our revenue estimates for the hypothetical state, we used the JCT splits for the provisions in Table 1. For the remaining business provisions, we used an 85 percent to 15 percent split for the corporate and individual shares, respectively.

Off-Model Method

The on-model business provisions listed in the Appendix refer to the corporate share of each provision. The individual shares for these provisions were estimated using an off-model approach. For all the remaining business provisions, an off-model approach was used for both the corporate and individual shares.

The off-model approach for the corporate shares relied on the ratio of historical state corporate tax collections to historical nationwide federal corporate tax collections. This ratio was adjusted to account for the reduction in federal corporate tax rates for the TCJA and differences in fiscal years. The multiplication of this ratio, the corporate share for the provision, and the JCT revenue estimate produced the off-model corporate share of the hypothetical state level revenue estimates.

The off-model approach for the individual shares of the business provisions relied on the ratios of (1) state residents' federal AGI to nationwide federal AGI and (2) state residents' historical state tax liability to state residents' historical federal tax liability. The second ratio was adjusted to account for the reduction in federal individual income tax rates from the TCJA. The multiplication of these two ratios, the individual share for the provision, and the JCT revenue estimate produced the off-model individual share of the hypothetical state level revenue estimates.

Hypothetical State Revenue Impact

The JCT estimated that the TCJA will result in significant federal tax cuts for some business taxpayers.[3] The bulk of the federal tax cut is because of the reduced corporate income tax rate, which generally would have no direct impact on hypothetical state revenue. Overall, we estimated that the TCJA's business provisions would result in revenue increases that grow over time. The provisions that result in the most significant hypothetical state revenue increases include:

- limit on the net interest deduction;
- amortization of research and experimental expenses;
- repeal of the domestic production activities deduction; and
- modification of the net operating loss deduction.

The TCJA business provisions that result in the most significant revenue decreases for our hypothetical state include an increase in IRC section 179 expensing and simplified accounting for small business.

Note that most of the revenue impact of the business provisions was accounted for by the provisions using the on-model or microsimulation approach.

Modeling Approach for Revenue Estimates for International Provisions

Hypothetical state staff and Chainbridge reviewed the TCJA's international provisions and concluded that many would have no impact on the state. While the state generally conforms to federal law, an exemption for some types of foreign-source income is allowed. The JCT estimated that international provisions of the TCJA will result in federal tax increases. Overall, we estimated that the TCJA's international provisions will result in a net tax increase for the hypothetical state corporate and individual income taxpayers.

Four of the international provisions would have the following effects on the hypothetical state:

- Deduction for dividends received by domestic corporations from some foreign corporations. The DRD provision decreases taxes for state business corporation taxpayers.
- Treatment of deferred foreign income upon transition to participation exemption system of taxation (repatriation provision). The repatriation provision would directly increase taxes for state corporate taxpayers

[3] "Tax Cuts and Jobs Act Conference Report to Accompany H.R. 1," at 685-688 (Dec. 15, 2017).

and indirectly increase taxes for state individual taxpayers.

- Current year inclusion of global intangible low-taxed income, with deduction, by U.S. shareholders. The GILTI provision would directly increase taxes for state corporate taxpayers.
- Deduction for foreign-derived intangible income derived from trade or business in the United States. The FDII provision would decrease taxes for state corporate taxpayers.

All other international provisions were determined to either have no impact or a de minimis impact and were not scored.

The corporate tax model was used to generate revenue estimates for the DRD, repatriation, GILTI, and FDII provisions. The individual income tax portion of the repatriation provision was estimated using an off-model approach. The corporate microdatabase was augmented by using Standard and Poor's *Compustat* data matched to state corporate returns. Extensive research of companies' Forms 10-K provided additional data that was used to analyze the international provisions. Below are details regarding our estimates for each of these provisions.

DRD Provision

This provision allows an exemption for some foreign income through a 100 percent deduction for the foreign-source portion of dividends received from specified 10-percent-owned foreign corporations by domestic corporations that are U.S. shareholders of those foreign corporations. A specified 10 percent owned foreign corporation is any foreign corporation (other than a passive foreign investment company) that is not also a controlled foreign corporation) of which any domestic corporation is a U.S. shareholder.

If a domestic corporation indirectly owns stock of a foreign corporation through a partnership and the domestic corporation would qualify for the participation DRD regarding dividends from the foreign corporation if the domestic corporation owned such stock directly, the domestic corporation would be allowed a participation DRD for its distributive share of the partnership's dividend from the foreign corporation. The DRD is available only to C corporations that are not regulated investment companies or real estate investment trusts.

The revenue impact of this provision is a direct tax decrease for hypothetical state corporate taxpayers. Overall, this provision significantly reduces corporate taxes over the 2018-to-2024 period.

Repatriation Provision

This provision generally requires that, for the last tax year beginning before January 1, 2018, any U.S. shareholder of a specified foreign corporation must include in income its pro rata share of the accumulated post-1986 deferred foreign income of the corporation. For purposes of this provision, a specified foreign corporation is any foreign corporation that has at least one U.S. shareholder. It excludes PFICs that are not also CFCs. A portion of that pro rata share of foreign earnings is deductible; the amount of the deductible portion depends on whether the deferred earnings are held in cash or other assets. The deduction results in a reduced tax rate for income from the required inclusion of pre-effective-date earnings. A corresponding portion of the credit for foreign taxes is disallowed, thus limiting the credit to the taxable portion of the included income. The increased tax liability generally may be paid over eight years. Special rules are provided for S corporations and REITs.

A portion of the state revenue impact of this provision is indirect — through the individual income tax. At the federal level, the repatriation provision is expected to bring back just under $3 trillion in deferred foreign income. Many companies repatriating foreign earnings will pay additional U.S. federal taxes and have access to cash that they otherwise would not have. It is our understanding that this additional income will be taxed in the state.

Based on our research of Forms 10-K filed with the Securities and Exchange Commission for publicly traded companies that are expected to repatriate earnings, we were able to estimate the amount of distributions being made because of the repatriation provision and the extent that they would be taxable to individual shareholders as either dividend income or capital gains under federal law.

Overall, for fiscal years 2018-2024, substantial additional revenue is raised by this international tax provision. It would flow through to the hypothetical state individual income taxpayers in the form of higher capital gains and dividends.

GILTI

Under the TCJA, U.S. shareholders of CFCs must include in gross income their pro rata share of GILTI, which is income earned by a foreign corporation that exceeds a "normal" rate of return on its tangible assets and that is not already taxed by the United States in the current year. A 10 percent rate of return on assets is considered normal. However, GILTI is effectively taxed at a low rate for U.S. corporate shareholders because, for tax years beginning after December 31, 2017, and before January 1, 2026, a domestic corporation can generally claim a deduction in an amount equal to 50 percent of its GILTI. For tax years beginning after December 31, 2025, the deduction amount is equal to 37.5 percent of its GILTI. The GILTI provision results in an increase in hypothetical state corporate taxes in fiscal years 2018 through 2024.

Deduction for FDII

This provision provides domestic corporations with reduced rates of U.S. tax on their FDII. This is the portion of a domestic corporation's intangible income, determined on a formulaic basis, that is derived from serving foreign markets. For tax years beginning after December 31, 2017, and before January 1, 2026, the provision generally allows as a deduction an amount equal to 37.5 percent of the FDII. For tax years beginning after December 31, 2025, the deduction for FDII is reduced to 21.875 percent.

Essentially, the FDII of any domestic corporation is the amount that bears the same ratio to the corporation's deemed intangible income as its foreign-derived deduction-eligible income bears to its deduction-eligible income. In other words, a domestic corporation's FDII is its deemed intangible income multiplied by the percentage of its deduction eligible income that is foreign-derived.

The revenue impact of this provision for the hypothetical state is initially a direct tax increase for state corporate taxpayers. By fiscal year 2023, this FDII provision results in a decrease in corporate taxes. Over the fiscal year period of 2018 to 2024, this provision reduces hypothetical state corporate taxes.

In this article, we presented a discussion of modeling approaches for determining the revenue effects of the individual, business, and international provisions of the TCJA on a hypothetical state, including both microsimulation and off-model approaches.

Appendix 1. Individual Tax Reform

	Revenue Impact	Estimation Method
A. Simplification and Reform of Rates, Standard Deductions, and Exemptions		
1. 10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets (sunset 12/31/25)	No impact	
2. Modify standard deduction ($12,000 for singles, $24,000 for married filing jointly, $18,000 for HoH) (sunset 12/31/25)	Indirect positive revenue impact	Tax Model
3. Repeal of deduction for personal exemptions (sunset 12/31/25)	No impact	
4. Alternative inflation measure	Unknown indirect revenue impact	Tax Model
B. Treatment of Business Income of Individuals, Trusts, and Estates		
1. Allow 20 percent deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives (sunset generally 12/31/25)	No impact	
2. Disallow active passthrough losses in excess of $500,000 for joint filers, $250,000 for all others (sunset 12/31/25)	Positive revenue impact	Tax Model

Appendix 1. Individual Tax Reform *(Continued)*

	Revenue Impact	Estimation Method
C. Reform of the Child Tax Credit		
1. Modification of child tax credit: $2,000 not indexed; refundable up to $1,400 indexed down to nearest $100 base year 2018; $2,500 refundability threshold not indexed; $500 other dependents not indexed; phase outs $200K/$400K not indexed (sunset 12/31/25)	No impact	
2. Require valid Social Security number of each child to claim refundable and non-refundable portions of child credit, non-child dependents and any child without a valid Social Security number still receives $500 non-refundable credit (sunset 12/31/25)	No impact	
D. Simplification and Reform of Deductions and Exclusions		
1. Repeal of itemized deductions for taxes not paid or accrued in a trade or business (except for up to $10,000 in State and local taxes), interest on mortgage debt in excess of $750K, interest on home equity debt, non-disaster casualty losses, and certain miscellaneous expenses (sunset generally 12/31/25)	Positive revenue impact	Tax Model
2. Increase percentage limit for charitable contributions of cash to public charities (sunset 12/31/25)	Negative revenue impact	Tax Model
3. Repeal of overall limitation on itemized deductions (sunset 12/31/25)	Negative revenue impact	Tax Model
4. Repeal exclusion for employer-provided bicycle commuter fringe benefit (sunset 12/31/25)	Minimal positive revenue impact	JCT is Zero
5. Repeal exclusion for employer-provided qualified moving expense reimbursements (other than members of the Armed Forces) (sunset 12/31/25)	Positive revenue impact	Tax Model
6. Repeal of deduction for moving expenses (other than members of the Armed Forces) (sunset 12/31/25)	Positive revenue impact	Tax Model
7. Limitation on wagering losses (sunset 12/31/25)	Minimal positive revenue impact	JCT is Zero
E. Retirement Savings		
1. Repeal of special rule permitting recharacterization of Roth conversions	Positive revenue impact	Off Model
2. Length of service awards for public safety volunteers	Negative revenue impact	Off Model
3. Extended rollover period for certain plan loan offsets		
F. Double Estate, Gift, and GST Tax Exemption Amount (sunset 12/31/25)	No impact	
G. Increase the Individual AMT Exemption Amounts and Phase-out Thresholds (sunset 12/31/25)	No impact	
H. Reduce ACA Individual Shared Responsibility		
Payment Amount to Zero	No impact	
I. Other Provisions		

Appendix 1. Individual Tax Reform *(Continued)*

	Revenue Impact	Estimation Method
1. Restore a medical expense deduction for expenses in excess of 7.5 percent of adjusted gross income (sunset 12/31/18)	Negative revenue impact	Tax Model
2. Allow for increased contributions to ABLE accounts; allow saver's credit for ABLE contributions (sunset 12/31/25)	Minimal negative revenue impact	JCT is Zero
3. Allow rollovers from 529 accounts to ABLE accounts (sunset 12/31/25)	Minimal negative revenue impact	JCT is Zero
4. Extend time limit for contesting IRS levy	No impact	
5. Treatment of certain individuals performing services in the Sinai Peninsula of Egypt (sunset 12/31/25)	Minimal negative revenue impact	JCT is Zero
6. Treatment of student loans discharged on account of death or disability (sunset 12/31/25)	Minimal negative revenue impact	JCT is Zero
7. Allow 529 withdrawals up to $10,000 for primary and secondary education	Negative revenue impact	Off Model
8. Retirement plan and casualty loss relief for any area with respect to which a major disaster has been declared by the President under section 401 of the Robert T. Stafford Relief and Emergency Assistance Act during 2016	Minimal negative revenue impact	No Disasters
9. Repeal of deduction for alimony payments and generally corresponding inclusion in income	Positive revenue impact	Tax Model
Total of Individual Tax Reform		

Appendix 2. Business Tax Reform

	Revenue Impact	Estimation Method
A. Repeal of Alternative Minimum Tax on Corporations	No impact	
B. 21 Percent Corporate Tax Rate	No impact	
C. Small Business Reforms		
1. Increase section 179 expensing to $1 million with a phaseout range beginning at $2.5 million and expand definition of qualified property	Negative revenue impact	Tax Model
2. Simplified accounting for small business	Negative revenue impact	Off Model
D. Cost Recovery, etc.		
1. Extension, expansion, and phase down of bonus depreciation (sunset 12/31/26)	No impact	
2. Limit net interest deductions to 30 percent of adjusted taxable income, carryforward of denied deduction	Positive revenue impact	Tax Model
3. Modify treatment of S corporation conversions into C corporations	Negative revenue impact	Off Model
4. Modifications to depreciation limitations on luxury automobiles and personal use property	Negative revenue impact	Tax Model
5. Modifications of treatment of certain farm property	Negative revenue impact	Off Model

Appendix 2. Business Tax Reform *(Continued)*

	Revenue Impact	Estimation Method
6. Modification of net operating loss deduction	Positive revenue impact	Tax Model
7. Repeal like-kind exchanges except for real property	Positive revenue impact	Off Model
8. Applicable recovery period for real property	Negative revenue impact	Off Model
9. Amortization of research and experimental expenditures	Positive revenue impact	Off Model
10. Expensing of certain costs of replacing citrus plants lost by reason of a casualty (sunset 12/22/27)	Minimal negative revenue impact	JCT is Zero
E. Business-Related Deductions		
1. Repeal of deduction for income attributable to domestic production activities	Positive revenue impact	Tax Model
2. Limitation on deduction by employers of expenses for fringe benefits:		
a. Meals and entertainment expenses, including meals for the convenience of the employer	Positive revenue impact	Off Model
b. Repeal deduction for qualified transportation fringes, including commuting except as necessary for employee's safety	Positive revenue impact	Off Model
c. Clarification of tangible personal property deductible as employee achievement award	Minimal positive revenue impact	JCT is Zero
3. Eliminate deduction for member of Congress living expenses	Minimal positive revenue impact	JCT is Zero
4. UBTI increased by amount of certain fringe benefit expenses for which deduction is disallowed	Positive revenue impact	Off Model
5. Repeal of rollover of publicly traded securities gain into specialized small business investment companies	Positive revenue impact	Off Model
6. Certain self-created property not treated as a capital asset	No impact	
F. Accounting Methods		
1. Certain special rules for taxable year of inclusion (in general)	Positive revenue impact	Off Model
2. Certain special rules for taxable year of inclusion (related to original issue discount and other similar items)	Positive revenue impact	Off Model
G. Business Credits		
1. Modification of credit for clinical testing expenses for certain drugs for rare diseases or conditions	Indirect negative revenue impact	De minimis
2. Modify rehabilitation credit to provide 20 percent historic credit ratably over 5 years, repeal credit for pre-1936 property	No impact	
3. Provide a tax credit to certain employers who provide family and medical leave (sunset 12/31/19)	Indirect positive revenue impact	De minimis
H. Banks and Financial Instruments		

Appendix 2. Business Tax Reform *(Continued)*

	Revenue Impact	Estimation Method
1. Limitation on deduction for FDIC premiums	Minimal positive revenue impact	De minimis
2. Repeal of advance refunding bonds	Minimal positive revenue impact	De minimis
3. Repeal of tax credit bonds	Minimal negative revenue impact	De minimis
I. Compensation		
1. Modification of limitation on excessive employee remuneration, with transition rule	Positive revenue impact	Off Model
2. 21-percent excise tax on excess tax-exempt organization executive compensation (certain exceptions provided to non-highly compensated employees, and for certain medical services)	Minimal negative revenue impact	De minimis
3. Treatment of qualified equity grants	Partial negative revenue impact	Off Model
4. Increase the excise tax on stock compensation in an inversion from 15 percent to 20 percent	Minimal positive revenue impact	JCT is Zero
J. Insurance		
1. Net operating losses of life insurance companies	No impact	
2. Repeal of small life insurance company deduction	No impact	
3. Adjustment for change in computing reserves	No impact	
4. Repeal of special rule for distributions to shareholders from pre-1984 policyholders surplus account	No impact	
5. Modification of proration rules for property and casualty insurance companies	No impact	
6. Repeal of special estimated tax payments	No impact	
7. Computation of life insurance reserves	No impact	
8. Modification of rules for life insurance proration	No impact	
9. Capitalization of certain policy acquisition expenses	No impact	
10. Tax reporting for life settlement transactions	Minimal positive revenue impact	De minimis
11. Clarification of tax basis of life insurance contracts	Minimal positive revenue impact	De minimis
12. Exception to transfer for valuable consideration rules	Minimal positive revenue impact	De minimis
13. Modification of property and casualty insurance company discounting rules	No impact	
K. Partnerships		
1. Tax gain on the sale of a partnership interest on look-thru basis	Minimal positive revenue impact	De minimis

Appendix 2. Business Tax Reform *(Continued)*

	Revenue Impact	Estimation Method
2. Expand the definition of substantial built-in loss for purposes of partnership loss transfers	Positive revenue impact	Off Model
3. Charitable contributions and foreign taxes taken into account in determining limitation on allowance of partner's share of loss	Positive revenue impact	Off Model
4. Repeal of technical termination of partnerships	Positive revenue impact	Off Model
L. Tax-Exempt Organizations		
1. Excise tax based on investment income of private colleges and universities with endowment per student of at least $500,000	No impact	
2. Unrelated business taxable income separately computed for each trade or business activity	Positive revenue impact	Off Model
3. Charitable deduction not allowed for amounts paid in exchange for college athletic event seating rights	Positive revenue impact	Off Model
4. Repeal substantiation exception for charitable contributions reported by donee organization	Minimal negative revenue impact	JCT is Zero
M. Other Provisions		
1. Modify tax treatment of Alaska Native Corporations and Settlement Trusts	Minimal negative revenue impact	JCT is Zero
2. Expansion of qualifying beneficiaries of an electing small business trust, and modify charitable contribution deduction for electing small business trusts	Minimal negative revenue impact	JCT is Zero
3. Craft beverage modernization and tax reform (sunset 12/31/19)	Partial negative revenue impact	De minimis
4. Exempt amounts paid for aircraft management services from the excise taxes imposed on transportation by air	Minimal negative revenue impact	JCT is Zero
5. Create qualified opportunity zones	Negative revenue impact	Off Model
6. Deny deduction for settlements subject to a nondisclosure agreement paid in connection with sexual harassment	Minimal positive revenue impact	JCT is Zero
7. Expand provision relating to the non-deductibility of fines and penalties	Minimal positive revenue impact	JCT is Zero
8. Repeal of deduction for local lobbying expenses	Positive revenue impact	Off Model
9. Revision of treatment of contributions to capital	Positive revenue impact	Off Model
10. Recharacterization of certain gains on property held for fewer than 3 years in the case of partnership profits interest held in connection with performance of investment services	No impact	
Total of Business Tax Reform		

Appendix 3. International Tax Reform

	Revenue Impact	Estimation Method
A. Establishment of Participation Exemption System for Taxation of Foreign Income		
1. Deduction for dividends received by domestic corporations from certain foreign corporations	Positive revenue impact	Tax Model
2. Special rules relating to sales or transfers involving certain foreign corporations	Minimal positive revenue impact	De minimis
3. Treatment of deferred foreign income upon transition to participation exemption system of taxation and mandatory inclusion at two-tier rate (8-percent rate for illiquid assets, 15.5-percent rate for liquid assets)	Positive revenue impact	Tax Model
B. Rules Related to Passive and Mobile Income		
1. Current year inclusion of global intangible low-taxed income, with deduction, by United States shareholders	Positive revenue impact	Tax Model
2. Deduction for foreign-derived intangible income derived from trade or business within the United States	Overall negative revenue impact	Tax Model
C. Other Modifications of Subpart F Provisions		
1. Elimination of inclusion of foreign base company oil related income	No impact	
2. Repeal of inclusion based on withdrawal of previously excluded subpart F income from qualified investment	No impact	
3. Modification of stock attribution rules for determining status as a controlled foreign corporation	No impact	
4. Modification of definition of United States shareholder	No impact	
5. Elimination of requirement that corporation must be controlled for 30 days before subpart F inclusions apply	No impact	
D. Prevention of Base Erosion		
1. Limitation on income shifting through intangible property transfers	Minimal positive revenue impact	De minimis
2. Certain related party amounts paid or accrued in hybrid transactions or with hybrid entities	Minimal positive revenue impact	De minimis
3. Dividends received from post-enactment surrogate foreign corporations not qualified dividend income	No impact	
E. Modifications Related to Foreign Tax Credit System		
1. Repeal of section 902 indirect foreign tax credits; determination of section 960 credit on current year basis	No impact	
2. Separate foreign tax credit limitation basket for foreign branch income	No impact	
3. Source of income from sales of inventory determined solely on basis of production activities	Minimal positive revenue impact	De minimis
4. Increase maximum overall domestic loss recapture to 100 percent for pre-2018 losses	No impact	
F. Inbound Provisions		

Appendix 3. International Tax Reform *(Continued)*

	Revenue Impact	Estimation Method
1. Base erosion and anti-abuse tax	No impact	
G. Other Provisions		
1. Restriction on insurance business exception to passive foreign investment company rules	Minimal positive revenue impact	De minimis
2. Repeal of fair market value method of interest expense apportionment	Minimal positive revenue impact	De minimis
Total of International Tax Reform		
NET TOTAL		