The Economics of Taxation

Washington Center
for Equitable Growth
Evidence for a stronger economy
• A course on understanding and evaluating tax proposals

  • Friday December 6: Tax Basics

  • Friday December 13: Taxes and Consequences

• Aim is to provide you with the ability to effectively analyze how proposed tax changes will affect families’ economic well-being
• Tax legislation:
  • changes the amount of revenues the government collects
  • changes the tax burden on each family (who pays what)
  • Tracking those two set of changes is the key to understanding the economic effects of tax legislation
• The tools of tax analysis

• Revenue estimate: change in deficit/surplus

• Distribution analysis: change in tax burden on each family
• Outline

• Revenue Estimation

• Distribution Analysis

• Understanding Growth

• Tradeoffs in Tax Policy
Revenue Estimation
• Revenue estimates
  • Estimate the impact of legislation on the deficit/surplus relative to current law
  • Produced by JCT, Treasury, various private organizations
  • Rely on an array of economic assumptions about behavioral responses to the legislation
• Two types of revenue estimates

• Conventional:
  • Assumes gross national product (GNP) does not change
  • In principle, includes all other forms of behavior
  • Provision-by-provision detail provided

• Dynamic:
  • Allows gross national product (GNP) to change
  • Typically estimated for the legislation as a whole

• Caution: dynamic scores are themselves often incomplete and open the door to timing games
I. Individual Tax Reform
   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) [1][2]...
         tyba 12/31/17 -94.1 -135.3 -140.9 -146.4 -152.0 -158.1 -164.3 -171.1 -52.0 [3] -668.7 -1,214.2
      2. Modify standard deduction ($12,000 for singles, $24,000 for married filing jointly, $18,000 for HoH) (sunset 12/31/25) [2]...
         tyba 12/31/17 -57.2 -82.6 -84.7 -87.5 -90.7 -92.9 -95.7 -99.1 -30.0 [3] -402.6 -720.4
      3. Repeal of deduction for personal exemptions (sunset 12/31/25) [2]...
         tyba 12/31/17 93.3 137.1 141.6 146.4 151.8 157.6 163.3 169.2 51.3 --- 670.1 1,211.5
      4. Alternative inflation measure [2]...
         tyba 12/31/17 0.8 2.1 5.5 8.2 10.4 12.8 16.6 20.0 25.6 31.5 27.0 133.5
   B. Treatment of Business Income of Individuals, Trusts, and Estates
      1. Allow 20% deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives (sunset 12/31/25) [4]...
         generally tyba 12/31/17 -27.7 -47.1 -49.9 -51.8 -52.8 -52.2 -53.6 -52.2 -24.2 -1.9 -229.5 -414.5
      2. Disallow active passthrough losses in excess of $500,000 for joint filers, $250,000 for all others (sunset 12/31/25)...
         tyba 12/31/17 9.5 16.2 17.2 18.0 18.8 19.6 20.4 19.4 9.3 1.3 79.7 149.7
   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 out $200K/$400K not indexed (sunset 12/31/25) [2]...
         tyba 12/31/17 -29.3 -67.7 -69.2 -70.4 -71.4 -73.8 -74.9 -76.0 -40.7 --- -308.1 -573.4
      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) [2]...
         tyba 12/31/17 --- 3.9 3.8 3.8 3.7 3.7 3.7 3.0 0.5 15.2 29.8
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</thead>
<tbody>
<tr>
<td>2. Repeal of fair market value method of interest</td>
<td>tyba 12/31/17</td>
<td>[5]</td>
<td>0.1</td>
<td>0.1</td>
<td>[5]</td>
<td>[5]</td>
<td>[5]</td>
<td>[5]</td>
<td>[5]</td>
<td>[5]</td>
<td>0.3</td>
<td>0.6</td>
<td></td>
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<tr>
<td>Total of International Tax Reform</td>
<td></td>
<td>68.9</td>
<td>42.6</td>
<td>26.0</td>
<td>28.0</td>
<td>22.9</td>
<td>22.5</td>
<td>36.7</td>
<td>48.7</td>
<td>29.1</td>
<td>-0.8</td>
<td>188.2</td>
<td>324.4</td>
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<tr>
<td>NET TOTAL</td>
<td></td>
<td>-135.7</td>
<td>-280.0</td>
<td>-258.8</td>
<td>-220.8</td>
<td>-178.3</td>
<td>-137.9</td>
<td>-120.1</td>
<td>-114.6</td>
<td>-40.6</td>
<td>32.9</td>
<td>-1,074.0</td>
<td>-1,456.0</td>
</tr>
</tbody>
</table>

Joint Committee on Taxation

NOTE: Details may not add to totals due to rounding. The date of enactment is generally assumed to be December 22, 2017.

Legend for "Effective" column:
- apa = amounts paid after
- apsasd = and placed in service after such date
- apoxa = amounts paid or accrued after
- apova = amounts paid or incurred after
- apoxo/a = amounts paid or incurred on or after
- ar = advance refunding
- bia = bonds issued after
- cmi = contributions made in
- da = distributions after
- Da = disposions after
- dda = decedents dying after
- DOE = date of enactment
- dda = discharges of indebtedness after
- dosaet = divorce or separation agreements entered into after
- eca = exchanges completed after
- fc = for charitable
- feodq = for expansion of qualifying beneficiaries
- gma = gifts made after
- hi = losses accrued in
- mba = months beginning after
- pa = property acquired after
- ppisa = property placed in service after
- ptyba = partnership taxable years beginning after
- sa = sales after
- seada = sales exchanges and dispositions after
- seado/a = sales, exchanges and dispositions on or after
- spo/a = service provided on or after
- sppoga = specified plants planted or grafted after
- Ta = transfers after
- teba = transfers of partnership interests after
- tyba = taxable years beginning after
# Table 1: Estimated Budget Effects of the Conference Agreement for H.R.1
Fiscal Years 2018 - 2027

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Conventional estimate</td>
<td>-135.7</td>
<td>-280.0</td>
<td>-258.8</td>
<td>-220.8</td>
<td>-178.3</td>
<td>-137.9</td>
<td>-120.1</td>
<td>-114.6</td>
<td>-40.6</td>
<td>31.9</td>
<td>-1074.0</td>
</tr>
<tr>
<td>Additional Effects Resulting from Macroeconomic Analysis</td>
<td>32.2</td>
<td>34.4</td>
<td>36.6</td>
<td>38.5</td>
<td>37.0</td>
<td>40.5</td>
<td>46.5</td>
<td>47.8</td>
<td>35.5</td>
<td>35.5</td>
<td>178.8</td>
</tr>
<tr>
<td><strong>NET TOTAL</strong></td>
<td>-103.5</td>
<td>-245.6</td>
<td>-222.2</td>
<td>-182.3</td>
<td>-141.3</td>
<td>-97.4</td>
<td>-73.6</td>
<td>-66.8</td>
<td>-5.1</td>
<td>68.4</td>
<td>-895.2</td>
</tr>
</tbody>
</table>

Joint Committee on Taxation

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**NOTE:** Details may not add to totals due to rounding
Distribution Analysis
• Distribution analysis estimates changes in the tax burden
  
  • Who pays for a tax increase?
  
  • Who gets a tax cut?
• Taxes are not necessarily paid by the person or entity legally obligated to pay
  • Statutory incidence: who is legally obligated to pay
  • Economic incidence: who actually pays

• Distribution analysis incorporates incidence assumptions about who actually bears the burden of taxation
  • All taxes assigned to people
  • Not just who is legally obligated to pay tax
• Example: increase the employer-side payroll tax

• Assumption: wage falls such that total compensation paid by the employer is unchanged

• Implication: reduction in the wage shifts the burden from the employer to the worker
• Economic analysis yields the dollar change in tax burden

• Presented in a variety of ways
  • percent change in tax
  • change in share of tax
  • change in average tax rate
  • percent change in after-tax income
• Look to the percent change in after-tax income as your default
  • Approximate impact of the legislation on well-being
  • Legislation that delivers equal percent change in after-tax income leaves relative distribution of income unchanged
  • JCT does not estimate!

• Avoid percent change in tax and change in share of tax
  • If you pay little tax, large percent change does nothing for you
## DISTRIBUTIONAL EFFECTS OF THE CONFERENCE AGREEMENT FOR H.R.1,
THE "TAX CUTS AND JOBS ACT"

**Calendar Year 2019**

<table>
<thead>
<tr>
<th>INCOME CATEGORY (2)</th>
<th>CHANGE IN FEDERAL TAXES (3)</th>
<th>FEDERAL TAXES (3) UNDER PRESENT LAW</th>
<th>FEDERAL TAXES (3) UNDER PROPOSAL</th>
<th>Average Tax Rate (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Millions</td>
<td>Percent</td>
<td>Billions</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than $10,000............</td>
<td>-$396</td>
<td>-5.6%</td>
<td>$7.0</td>
<td>0.2%</td>
</tr>
<tr>
<td>$10,000 to $20,000...........</td>
<td>-$1,792</td>
<td>(5)</td>
<td>-$2.4</td>
<td>-0.1%</td>
</tr>
<tr>
<td>$20,000 to $30,000..........</td>
<td>-$2,982</td>
<td>-13.5%</td>
<td>$22.1</td>
<td>0.7%</td>
</tr>
<tr>
<td>$30,000 to $40,000..........</td>
<td>-$5,416</td>
<td>-11.5%</td>
<td>$47.0</td>
<td>1.5%</td>
</tr>
<tr>
<td>$40,000 to $50,000..........</td>
<td>-$6,728</td>
<td>-10.0%</td>
<td>$67.3</td>
<td>2.1%</td>
</tr>
<tr>
<td>$50,000 to $75,000..........</td>
<td>-$23,046</td>
<td>-8.7%</td>
<td>$265.3</td>
<td>8.2%</td>
</tr>
<tr>
<td>$75,000 to $100,000..........</td>
<td>-$22,437</td>
<td>-8.0%</td>
<td>$279.5</td>
<td>8.7%</td>
</tr>
<tr>
<td>$100,000 to $200,000........</td>
<td>-$70,372</td>
<td>-7.5%</td>
<td>$939.8</td>
<td>29.1%</td>
</tr>
<tr>
<td>$200,000 to $500,000........</td>
<td>-$65,485</td>
<td>-9.0%</td>
<td>$724.3</td>
<td>22.4%</td>
</tr>
<tr>
<td>$500,000 to $1,000,000.......</td>
<td>-$23,947</td>
<td>-9.4%</td>
<td>$254.7</td>
<td>7.9%</td>
</tr>
<tr>
<td>$1,000,000 and over........</td>
<td>-$36,853</td>
<td>-5.9%</td>
<td>$624.1</td>
<td>19.3%</td>
</tr>
<tr>
<td><strong>Total, All Taxpayers......</strong></td>
<td><strong>-$259,454</strong></td>
<td><strong>-8.0%</strong></td>
<td><strong>$3,228.7</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: Joint Committee on Taxation

Detail may not add to total due to rounding.
<table>
<thead>
<tr>
<th>Expanded cash income percentile</th>
<th>Percent change in after-tax income</th>
<th>Share of total federal tax change (%)</th>
<th>Average federal tax change (dollars)</th>
<th>Average federal tax rate</th>
<th>Change (points)</th>
<th>Under the proposal (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quintile</td>
<td>0.4</td>
<td>1.0</td>
<td>-60</td>
<td>-0.4</td>
<td>3.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Second quintile</td>
<td>1.2</td>
<td>5.2</td>
<td>-380</td>
<td>-1.1</td>
<td>7.6</td>
<td>12.4</td>
</tr>
<tr>
<td>Middle quintile</td>
<td>1.6</td>
<td>11.2</td>
<td>-930</td>
<td>-1.4</td>
<td>12.4</td>
<td>15.8</td>
</tr>
<tr>
<td>Fourth quintile</td>
<td>1.9</td>
<td>18.4</td>
<td>-1,810</td>
<td>-1.6</td>
<td>15.8</td>
<td>23.3</td>
</tr>
<tr>
<td>Top quintile</td>
<td>2.9</td>
<td>65.3</td>
<td>-7,640</td>
<td>-2.2</td>
<td>23.3</td>
<td>31.6</td>
</tr>
<tr>
<td>All</td>
<td>2.2</td>
<td>100.0</td>
<td>-1,610</td>
<td>-1.8</td>
<td>18.1</td>
<td></td>
</tr>
</tbody>
</table>

| Addendum                      |                                   |                                      |                                     |                         |                |                     |
| 80-90                         | 2.0                               | 13.1                                 | -2,970                              | -1.6                    | 18.5           |                     |
| 90-95                         | 2.2                               | 9.6                                  | -4,550                              | -1.8                    | 20.2           |                     |
| 95-99                         | 4.1                               | 22.1                                 | -13,480                             | -3.1                    | 22.2           |                     |
| Top 1 percent                 | 3.4                               | 20.5                                 | -51,140                             | -2.3                    | 30.3           |                     |
| Top 0.1 percent               | 2.7                               | 7.9                                  | -193,380                            | -1.8                    | 31.6           |                     |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0217-1)
Distribution analysis shows the TCJA reduced tax burdens

Percent change in after-tax income by calendar year

Source: Tax Policy Center [2017].

Equitable Growth
• Impacts on revenue and burden are the economic effects of tax legislation

• Both revenue and distribution analysis require numerous economic assumptions

• These assumptions are always subject to debate – if you disagree with them you disagree with the results

• Different organizations make different assumptions
• The economics of taxation is about tracking the transfers: changes in revenues and changes in burden for different people

• Economic commentary on taxation frequently invokes growth, which often leads to confusion and double-counting
• What is growth?

• Usual technical meaning: an increase in the value of goods and services produced in the United States (GDP)

• Not a claim about jobs, wages, or living standards!
• Broken window fallacy:
  • Suppose I walk around breaking everybody’s windows
    • Good for window makers, window installers
    • Might increase total income/output
    • Bad for people
  • Always important to examine well-being directly, not proxies
• Popular view

  • Growth delivers additional benefits to the public on top of a tax cut

  • The benefits of growth are distributed broadly throughout the population

• Reality

  • No or few gains on top of those shown in the distribution analysis – the benefit of a tax cut is the tax cut
• Growth comes at a cost
  • Longer work weeks
  • Increased child care expenses
  • Reduced consumption
  • More payouts to foreign investors

• Distribution analysis nets out these costs
  • Bonus: distribution analysis also tells you who wins/loses
• Implication: total tax change in distribution table does not necessarily equal the revenue estimate
  • Revenue estimate includes behavior that is excluded from the distribution analysis
  • Example: tax avoidance usually reflected in revenue estimate, not distribution analysis (exception: JCT)

• This conceptual difference between revenue estimates and distribution analysis is what gives rise to the possibility of positive-sum tax reform through careful design of legislation

• There are often additional practical reasons for differences between revenue estimates and distribution analyses
Tradeoffs in Tax Policy
• Tradeoffs in taxation are between
  • taxes and spending
  • taxes and other taxes (tax reform)

• Tax legislation is often enacted without offsets, meaning it either increases or decreases the deficit
  • How will future Congresses change taxes or spending?
  • What else could have been done with the money?
• A distribution analysis with financing shows the impact of proposed legislation combined with *hypothetical* offsets

• Illustrates the tradeoffs involved in tax policy
• Obviously, you don’t know what the offsets will be
As enacted, the TCJA reduced tax burdens in the near term

Percent change in after-tax income by calendar year

Note: Excludes impact of repealing the individual mandate.
With lump-sum financing, most income groups would be worse off off

Percent change in after-tax income by calendar year

Note: Excludes impact of repealing the individual mandate; financing set to 70% of aggregate tax cut.
Source: Authors’ calculations using estimates from the Tax Policy Center and Congressional Budget Office.
With proportional financing, most income groups would be worse off

Percent change in after-tax income by calendar year

Note: Excludes impact of repealing the individual mandate; financing equal to aggregate tax cut.
Source: Authors' calculations using estimates from the Tax Policy Center and Congressional Budget Office.
Concluding Remarks
• Tax legislation:
  • changes the amount of revenues the government collects
  • changes the tax burden on each family (who pays what)

• Tracking those two set of changes is the key to understanding the economic effects of tax legislation

• Revenue and distribution analysis show the economic costs and benefits of tax changes
Useful References

• JCT, “Revenue Estimating Process February 2019,”
  https://www.jct.gov/publications.html?func=startdown&id=5162

• TPC, “Measuring the Distribution of Tax Changes,”
  https://www.taxpolicycenter.org/resources/measuring-distribution-tax-changes

• Greg Leiserson, “If U.S. tax reform delivers equitable growth, a distribution table will show it,”

• Greg Leiserson, “Assessing the economic effects of the Tax Cuts and Jobs Act,”

• The Tax Policy Center’s Glossary of Tax Terms: https://www.taxpolicycenter.org/briefing-book/glossary