TCJA After One Year

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Overview

• Elements of the Reform
  • Individual Income Tax
  • Corporate Income Tax

• Economic Impact
  • Behavioral Effects
  • Market Outlook

• Debt Sustainability
Individual Income Taxes

- Increased standard deduction
- Limited certain excess itemized deductions
- 20% Deduction on pass-through income
- Rate changes
Deductions Pre-TCJA

Excess Itemized Deductions

• State and local taxes (SALT)
• Mortgage interest
• Charitable deductions
• Other
Deductions Post-TCJA

Excess Itemized Deductions

- SALT
  - Capped at $10,000
- Mortgage interest
  - Reduced deductible debt from $1 million to $750,000
- Charitable contributions
  - Increased limit from 50% to 60% of AGI
- Other
  - Several miscellaneous deductions eliminated
Deductions Post-TCJA

Excess Itemized Deductions

• SALT
  • Capped at $10,000

• Mortgage interest
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• Other
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~Doubled the Standard Deduction
Effects of Deductions: Implicit Subsidies

• SALT Cap $\rightarrow$ increased state and local tax burden

• Deduction reform $\rightarrow$ reduced demand for (certain) housing
  
  • Overall cost of housing is higher

  • Higher effective property tax (on average)

  • Higher effective mortgage costs

  • More money in pocket (opposite effect)
Tax Rate Changes
Effects of Rate Cuts

• Increase in labor hours (JCT, 2017):

“The significant reduction in marginal tax rates on labor... provide strong incentives for an increase in labor supply.”

“On average, employment is projected to increase by about 0.6 percent relative to baseline levels during the budget period.”
Corporate Income Tax

• Reduced top marginal tax rate from 35% to 21%
• Limited NOL carryforwards
• Limited debt deductibility
• “Worldwide” (“residential”) towards “territorial” tax system
• Incentivized investment
Basics of a Corporate Tax Rate Change

• Value of a firm:
  \[ V = d_0 + \frac{d_1}{1+r} + \frac{d_2}{(1+r)^2} + ... \]

• Dividends are profits after corporate income taxes:
  \[ d_0 = (1 - t)\pi_0 \]

• Rewrite value of a firm:
  \[ V = (1 - t)\pi_0 + \frac{(1-t)\pi_1}{1+r} + \frac{(1-t)\pi_2}{(1+r)^2} + ... \]
  \[ V = (1 - t)\left\{\pi_0 + \frac{\pi_1}{1+r} + \frac{\pi_2}{(1+r)^2} + ... \right\} \]
Basics of a Corporate Tax Rate Change

Quick forecast of market appreciation:

\[
\frac{V_{\text{new}}}{V_{\text{old}}} - 1 = \frac{1 - t_{\text{new}}}{1 - t_{\text{old}}} - 1 = 21.5\%
\]
S&P 500 Appreciation After 2016 Election
NOL Carryforwards

- Losses incurred are deductible from future income
  - Ex: \( \pi_1 = -100 \); \( \pi_2 = 100 \)
  - Pre-TCJA: Taxable income in year 2 is $0.
  - Post-TCJA: Taxable income in year 2 is $20.
  - Remaining $20 is deductible in future period.

- Claim: NOL provision of TCJA only shifts *timing* of tax payments
“Residential” → “Territorial” Tax System

- Pre-TCJA: Residential
  - Profits stockpiled internationally (est. $2.6 trillion; JCT 2016)
  - Encouraged “corporate inversion”

- Post-TCJA: “Hybrid”
  - Exempted foreign profits from taxable income
  - Minimum tax (10%) to prevent base erosion
Investment Incentives

• Short-lived investment (< 20 years)
  • Pre-TCJA: Cost deduction spread out over years
  • Post-TCJA: Immediate (full) deductibility for 5 years; phased out

• R&D expenditures
  • Pre-TCJA: Immediate (full) deductibility
  • Post-TCJA: Ends immediate (full) deductibility after 5 years
Gross Private Domestic Investment

Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

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## Corporate Tax Cut: Model-Simulated Impact

<table>
<thead>
<tr>
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<th>Baseline Economy</th>
<th>Corporate Tax Reform</th>
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<tbody>
<tr>
<td><strong>HOUSEHOLDS</strong></td>
<td></td>
<td></td>
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<tr>
<td>Wealth Gini</td>
<td>0.802</td>
<td>0.791</td>
</tr>
<tr>
<td>Indebted Households</td>
<td>14.8%</td>
<td>12.4%</td>
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<tr>
<td><strong>BUSINESSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit Margin</td>
<td>14.8%</td>
<td>15.2%</td>
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<tr>
<td>Dividend Yield</td>
<td>1.8%</td>
<td>1.9%</td>
</tr>
<tr>
<td>P/E Ratio</td>
<td>30.1</td>
<td>32.4</td>
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Government Debt

• CBO/JCT: TCJA will grow debt by $1-2 trillion over 10 years

• Is this a problem?
  
  • ↑ Growth rate of debt → ↑ Taxes required for stabilization
  
  • Private capital crowd-out?
Government Debt Projection (CBO)
Asset Markets

• **Supply**: Creditors (Households)

• **Demand**: Debtors (Businesses & Government)

• **Price**: Interest Rate

• Crowd-out theory:
  
  • ↑ Government debt → ↑ Interest rate → ↑ Business cost of capital

  • Demand seems “high.” How about supply?
Future of Debt Sustainability

• Back of the envelope calculation:
  • Net worth/GDP will increase by 0.52 (or 50% of GDP) by 2035.
  • Government debt/GDP is expected to rise by 0.26 (or 26% of GDP) by 2035.
  • Crowd-out from government debt unlikely in the near term.

• Long-term macroeconomic outlook
  • International asset demand
  • Immigration
Conclusion

• Individual Income Taxes
  • Reduces rates, reduces itemized deductions
  • Shifts demand away from housing

• Corporate Income Taxes
  • Appreciates market valuation
  • Tax system more competitive internationally
  • Potentially reduces inequality

• Government Debt
  • Increases growth rate of debt
  • Unlikely to crowd out private investment in the near term