The Growth Implications of "Tax Reform 2.0"

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Executive Summary

- This analysis provides the estimated macroeconomic effects of making permanent the key expiring individual elements and the provision providing full expensing of equipment in the Tax Cuts and Jobs Act (TCJA).

- According to EY's modeling, making these provisions permanent would enhance investment, labor supply, real wages, and economic growth within the 10-year budget window and beyond.

- The ultimate level of gross domestic product (GDP) rises by between 1.7 and 2.7 percent, investment rises by between 3.6 and 5.2 percent, and wages rise by between 2.9 and 6.6 percent.

- On a static basis these tax changes are estimated to lose approximately $750 billion in revenue within the 10-year window.[1] The EY model assumes these additional deficits are reduced after 20 years through either reduction in transfer payments or tax increases. Thus, in the long-run, this analysis assumes that any increase in deficits and federal debt due to tax reform is eliminated.

Summary of Results

The TCJA was signed into law on December 22, 2017. It made substantial reforms to the individual tax code, to include individual rate reductions and the expansion of certain deductions and family credits, as well as the elimination or reduction of several individual tax preferences. The TCJA also included substantial reform to the business and international tax systems. Because the TCJA was passed through Congress under reconciliation procedures, the Act was required to comport with certain budgetary restrictions, specifically the prohibition against deficit increases beyond the budget window.

To meet this restriction, most of the major individual tax reforms in the TCJA expire at the end of 2025. The business reforms are largely permanent, with the exception of the provision of 100 percent expensing of qualified equipment, which begins to phase out in 2022. The TCJA also created a new 20 percent deduction for qualified business income earned through pass-through entities, which expires in 2025 along with most of the individual tax title.

Table 1: Summary of Provisions Modeled

Major Individual Reforms Expring at the End of 2025

Rate Structure	10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets
Standard Deduction	$12,000 for singles, $24,000 for married filing jointly, $18,000 for head of household
Child Tax Credit	$2,000 total, $1,400 refundable
Dependent Credit	$500 non-refundable
Itemized Deductions	See Note in Appended Tables
Personal and dependent Exemption	Eliminated
Alternative Minimium Tax	Exemptions Increased
Estate and GST	Exemptions Doubled

Business Reforms

Pass-Through Entities	20% deduction of qualified business income (expires at the end of 2025)
Expensing	100% for qualifying property (begins phasing out in 2022, expires at the end of 2026)

Congress is likely to debate the extension of these expiring provisions, and that debate would benefit from having credible estimates of the potential macroeconomic effects of such a policy. AAF retained EY to conduct these estimates to illuminate that debate.

Table 2 summarizes the results of the EY analysis.

Table 2: Summary of Results

(%)	2019-2028			Long-Run		
Assmumption	**GDP**	**Wages**	**Job Equivalents**	**GDP**	**Wages**	**Job Equivalents**
Deficits Financed with Spending Cut	0.8	1.1	0.9	2.7	6.6	4.2
Deficits Financed with Tax Increase	0.8	1.1	0.9	1.7	2.9	2.9

According to EY, making the individual tax provisions and the provision providing for full expensing of qualified property permanent would increase GDP over the next 10 years by 0.8 percent, boosting wages and job equivalents by 1.1 and 0.9 percent respectively. EY assumes that the tax cuts are deficit financed for 20 years before either spending is reduced or individual income tax rates are increased to return to the initial debt-to-GDP ratio over the following 20 years. Over the long-run, the financing assumption of the resulting deficits is significant. If the deficits are financed with offsetting spending reductions, the GDP, wage and employment increases would be 1, 3.7, and 1.3 percentage points higher than if the deficits effects were financed with higher taxes.

The approaches taken by EY closely resemble techniques used by the Joint Committee on Taxation (JCT) when doing dynamic scoring for federal budget purposes. Specifically, EY employs an open-economy, overlapping-generations model (a description of which is appended), which features forward-looking decision making in a global setting and is useful for analyzing proposals that affect investment decisions in the presence of global capital flows.

Building a better working world

Table 1. Estimated macroeconomic impacts of permanent extension of expiring individual income tax provisions in the TCJA and permanent 100% bonus depreciation

Percent change from current law baseline

Macroeconomic indicator	2019-23	2024-28	2019-28	Long run	2019-23	2024-28	2019-28	Long run
	Deficits financed by a reduction in transfer payments				Deficits financed by an increase in individual income taxes			
Gross domestic product	0.4%	1.3%	0.8%	2.7%	0.4%	1.3%	0.8%	1.7%
Consumption	-0.9%	-0.9%	-0.9%	2.7%	-0.9%	-0.9%	-0.9%	1.6%
Investment	7.2%	13.8%	10.5%	5.2%	7.1%	13.7%	10.4%	3.6%
Capital stock	0.2%	1.4%	0.8%	5.2%	0.2%	1.4%	0.8%	3.7%
After-tax wage rate	-0.1%	2.3%	1.1%	6.6%	-0.1%	2.3%	1.1%	2.9%
Labor supply	0.5%	1.2%	0.8%	1.0%	0.5%	1.2%	0.8%	0.3%
Job equivalents	0.4%	1.5%	0.9%	4.2%	0.4%	1.5%	0.9%	2.9%

Note: Macroeconomic impacts estimated with the EY QUEST Overlapping Generations Model of the US Economy. In this model, tax policy affects the incentives to work, save and invest, and to allocate capital and labor among competing uses. Representative individuals and firms incorporate the after-tax return from work and savings into their decisions of how much to produce, save, and work. The estimates include the permanent extension of the following provisions: 10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets, modify standard deduction ($12,000 for singles, $24,000 for married filing jointly, $18,000 for HoH), repeal of deduction for personal exemptions, allow 20% deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives, disallow active pass-through losses in excess of $500,000 for joint filers, $250,000 for all others, 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, 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, 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, increase percentage limit for charitable contributions of cash to public charities, repeal of overall limitation on itemized deductions, repeal exclusion for employer-provided bicycle commuter fringe benefit, repeal exclusion for employer-provided qualified moving expense reimbursements (other than members of the Armed Forces), repeal of deduction for moving expenses (other than members of the Armed Forces), limitation on wagering losses, double estate, gift, and GST tax exemption amount, increase the individual AMT exemption amounts and phase-out thresholds, restore a medical expense deduction for expenses in excess of 7.5% of adjusted gross income, allow for increased contributions to ABLE accounts; allow saver's credit for ABLE contributions, allow rollovers from 529 accounts to ABLE accounts, treatment of certain individuals performing services in the Sinai Peninsula of Egypt, treatment of student loans discharged on account of death or disability, and 100% bonus depreciation. Two deficit financing simulations are presented for comparison. The first simulation allows deficits for 20 years and then adjusts government transfers to reduce the debt-to-GDP ratio to the initial level over the following 20 years. The second simulation allows deficits for 20 years and then implements across-the-board increases in individual income tax rates to reduce the debt-to-GDP ratio to the initial level. The effects of the across-the-board increase in individual income tax rates vary across tax returns. The across-the-board increase can more than offset the average and marginal tax rate reduction of the TCJA individual income tax brackets. Generally, the average and marginal tax rate reduction of the TCJA individual income tax brackets is more likely to be more than offset as income increases. For example, some taxpayers in the pre-TCJA 39.6% bracket have a marginal tax rate higher than 39.6% after the across-the-board increase whereas others in the same pre-TCJA 39.6% bracket do not. Some individual income tax rates increase relative to pre-TCJA law whereas others do not. For example, the pre-TCJA law individual income tax rate of 15% is reduced to 12% with the TCJA and increased to approximately 13.2% with the across-the-board increase. In contrast, the pre-TCJA law individual income tax rate of 39.6% is reduced to 37% with the TCJA and increased to approximately 40.8% with the across-the-board increase. It is estimated that, on a conventional basis, that the policy will reduce revenue approximately $750 billion over the budget window. Job equivalents is defined as total labor income divided by the baseline average labor income per job.

Source: EY analysis.

Table 2. Estimated macroeconomic impacts of permanent extension of expiring individual income tax provisions in the TCJA and permanent 100% bonus depreciation: Low values for key parameters

Percent change from current law baseline

Macroeconomic indicator	2019-23	2024-28	2019-28	Long run	2019-23	2024-28	2019-28	Long run
	Deficits financed by a reduction in transfer payments				Deficits financed by an increase in individual income taxes			
Gross domestic product	0.3%	1.0%	0.6%	2.2%	0.3%	1.0%	0.6%	1.3%
Consumption	-0.8%	-0.3%	-0.5%	2.2%	-0.8%	-0.3%	-0.5%	1.2%
Investment	5.8%	8.4%	7.1%	4.4%	5.7%	8.2%	6.9%	2.9%
Capital stock	0.1%	1.0%	0.6%	4.6%	0.1%	1.0%	0.6%	3.2%
After-tax wage rate	*	2.7%	1.3%	8.2%	*	2.7%	1.3%	3.2%
Labor supply	0.3%	0.8%	0.6%	0.7%	0.3%	0.8%	0.6%	0.1%
Job equivalents	0.3%	1.5%	0.9%	5.5%	0.3%	1.5%	0.9%	3.8%

* Less than 0.05% in magnitude

Note: Macroeconomic impacts estimated with the EY QUEST Overlapping Generations Model of the US Economy. In this model, tax policy affects the incentives to work, save and invest, and to allocate capital and labor among competing uses. Representative individuals and firms incorporate the after-tax return from work and savings into their decisions of how much to produce, save, and work. The estimates include the permanent extension of the following provisions: 10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets, modify standard deduction ($12,000 for singles, $24,000 for married filing jointly, $18,000 for HoH), repeal of deduction for personal exemptions, allow 20% deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives, disallow active pass-through losses in excess of $500,000 for joint filers, $250,000 for all others, 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, 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, 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, increase percentage limit for charitable contributions of cash to public charities, repeal of overall limitation on itemized deductions, repeal exclusion for employer-provided bicycle commuter fringe benefit, repeal exclusion for employer-provided qualified moving expense reimbursements (other than members of the Armed Forces), repeal of deduction for moving expenses (other than members of the Armed Forces), limitation on wagering losses, double estate, gift, and GST tax exemption amount, increase the individual AMT exemption amounts and phase-out thresholds, restore a medical expense deduction for expenses in excess of 7.5% of adjusted gross income, allow for increased contributions to ABLE accounts; allow saver's credit for ABLE contributions, allow rollovers from 529 accounts to ABLE accounts, treatment of certain individuals performing services in the Sinai Peninsula of Egypt, treatment of student loans discharged on account of death or disability, and 100% bonus depreciation. Two deficit financing simulations are presented for comparison. The first simulation allows deficits for 20 years and then adjusts government transfers to reduce the debt-to-GDP ratio to the initial level over the following 20 years. The second simulation allows deficits for 20 years and then implements across-the-board increases in individual income tax rates to reduce the debt-to-GDP ratio to the initial level. The effects of the across-the-board increase in individual income tax rates vary across tax returns. The across-the-board increase can more than offset the average and marginal tax rate reduction of the TCJA individual income tax brackets. Generally, the average and marginal tax rate reduction of the TCJA individual income tax brackets is more likely to be more than offset as income increases. It is estimated that, on a conventional basis, that the policy will reduce revenue approximately $750 billion over the budget window. Job equivalents is defined as total labor income divided by the baseline average labor income per job.

Source: EY analysis.

Table 3. Estimated macroeconomic impacts of permanent extension of expiring individual income tax provisions in the TCJA and permanent 100% bonus depreciation: High values for key parameters

Percent change from current law baseline

Macroeconomic indicator	2019-23	2024-28	2019-28	Long run	2019-23	2024-28	2019-28	Long run
	Deficits financed by a reduction in transfer payments				Deficits financed by an increase in individual income taxes			
Gross domestic product	0.4%	1.7%	1.1%	3.4%	0.4%	1.7%	1.1%	2.4%
Consumption	-1.0%	-1.6%	-1.3%	3.4%	-1.0%	-1.7%	-1.3%	2.3%
Investment	8.3%	19.9%	14.1%	6.8%	8.5%	20.0%	14.2%	5.1%
Capital stock	0.2%	1.7%	0.9%	6.7%	0.2%	1.7%	0.9%	5.1%
After-tax wage rate	-0.2%	2.0%	0.9%	6.1%	-0.2%	2.0%	0.9%	3.5%
Labor supply	0.6%	1.7%	1.2%	1.4%	0.6%	1.7%	1.2%	0.6%
Job equivalents	0.4%	1.7%	1.1%	4.1%	0.4%	1.7%	1.1%	3.0%

Note: Macroeconomic impacts estimated with the EY QUEST Overlapping Generations Model of the US Economy. In this model, tax policy affects the incentives to work, save and invest, and to allocate capital and labor among competing uses. Representative individuals and firms incorporate the after-tax return from work and savings into their decisions of how much to produce, save, and work. The estimates include the permanent extension of the following provisions: 10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets, modify standard deduction ($12,000 for singles, $24,000 for married filing jointly, $18,000 for HoH), repeal of deduction for personal exemptions, allow 20% deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives, disallow active pass-through losses in excess of $500,000 for joint filers, $250,000 for all others, 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, 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, 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, increase percentage limit for charitable contributions of cash to public charities, repeal of overall limitation on itemized deductions, repeal exclusion for employer-provided bicycle commuter fringe benefit, repeal exclusion for employer-provided qualified moving expense reimbursements (other than members of the Armed Forces), repeal of deduction for moving expenses (other than members of the Armed Forces), limitation on wagering losses, double estate, gift, and GST tax exemption amount, increase the individual AMT exemption amounts and phase-out thresholds, restore a medical expense deduction for expenses in excess of 7.5% of adjusted gross income, allow for increased contributions to ABLE accounts; allow saver's credit for ABLE contributions, allow rollovers from 529 accounts to ABLE accounts, treatment of certain individuals performing services in the Sinai Peninsula of Egypt, treatment of student loans discharged on account of death or disability, and 100% bonus depreciation. Two deficit financing simulations are presented for comparison. The first simulation allows deficits for 20 years and then adjusts government transfers to reduce the debt-to-GDP ratio to the initial level over the following 20 years. The second simulation allows deficits for 20 years and then implements across-the-board increases in individual income tax rates to reduce the debt-to-GDP ratio to the initial level. The effects of the across-the-board increase in individual income tax rates vary across tax returns. The across-the-board increase can more than offset the average and marginal tax rate reduction of the TCJA individual income tax brackets. Generally, the average and marginal tax rate reduction of the TCJA individual income tax brackets is more likely to be more than offset as income increases. It is estimated that , on a conventional basis, that the policy will reduce revenue approximately $750 billion over the budget window. Job equivalents is defined as total labor income divided by the baseline average labor income per job.

Source: EY analysis.

Limitations and caveats

Any modeling effort is only a rough approximation of potential impacts, and the modeling used for this analysis is no exception. Although various limitations and caveats might be added to the analysis, several are particularly noteworthy:

- **Estimates are limited by available public information.** The analysis relies on information reported by federal government agencies (primarily the Bureau of Economic Analysis, the Bureau of Labor Statistics, and the US Census Bureau) and publicly available individual and industry tax return information (from the Internal Revenue Service). The analysis did not attempt to verify or validate this information using other sources.
- **Estimates are based on a stylized depiction of the US economy.** The model used for this analysis is, by its very nature, a highly stylized depiction of the US economy intended to capture key details important to analyzing the impact of a potential tax policy change.
- **The United States is assumed to be on a fiscally sustainable path.** The model used for this analysis assumes that the United States is on a fiscally sustainable path under current law and remains on a fiscally sustainable path after the policy change, when neither may necessarily be the case.
- **Estimates are limited by calibration to the 2014 US economy.** This model is calibrated to represent the US economy in 2014 and then forecast forward, but, because any particular year may reflect unique events and also may not represent the economy in the future, no particular baseline year can be completely generalized.
- **Full employment model.** Many general equilibrium models – including the model used for this analysis – focus on the long-run growth effects of policy changes and thus often rely on a full employment assumption (i.e., there is no involuntary unemployment). However, to speak to the employment-related impacts of a policy change, the change in labor income can be converted into a job equivalents measure. Specifically, the job equivalent measure is calculated as total labor income divided by the baseline average labor income per job. The policy induced percentage change in this measure gives a very rough indication of the proportional change in jobs, but still within the framework of a full employment, highly stylized, economy in which all markets clear at each point in time and over time.
- **Estimates are sensitive to the particular way that tax cuts are financed.** It does not make sense in models such as this to simply cut taxes. In models of this type it is assumed the government must also make some adjustment so that its “budget constraint” is not violated. There is no agreement among experts over the correct or best assumptions to make. Results are reported for two assumptions that illustrate the range of possible results, but other assumptions are possible.

Appendix. EY QUEST Overlapping Generations General Equilibrium Model of the US Economy

The EY QUEST Overlapping Generations General Equilibrium Model of the US Economy ("EY QUEST OLG Model") is similar to general equilibrium models that have been used by the Congressional Budget Office, Joint Committee on Taxation, and US Treasury Department.[2] In this model, tax policy affects the incentives to work, save and invest, and to allocate capital and labor among competing uses. Representative individuals and firms incorporate the after-tax return from work and savings into their decisions of how much to produce, save, and work.

The general equilibrium methodology accounts for changes in equilibrium prices in factor (i.e., capital and labor) and goods markets and simultaneously accounts for the behavioral responses of individuals and businesses to changes in taxation. Behavioral changes are estimated in the OLG framework, whereby representative individuals incorporate changes in current and future prices when deciding how much to consume and save in each period of their life.

An overview of the model follows:

Production

Firm production is modeled with the constant elasticity of substitution (CES) functional form, in which firms choose the optimal level of capital and labor subject to the gross-of-tax cost of capital and gross-of-tax wage. The model includes industry-specific detail through use of differing costs of capital, factor intensities, and production function scale parameters. Such a specification accounts for differential use of capital and labor between industries as well as distortions in factor prices introduced by the tax system. The cost of capital measure models the extent to which the tax code discriminates by asset type, organizational form, and source of finance.

The industry detail included in this model corresponds approximately with three-digit North American Industry Classification System (NAICS) codes and is calibrated to a stylized version of the 2014 US economy. Because industry outputs are typically a combination of value added (i.e., the capital and labor of an industry) and the finished production of other industries (i.e., intermediate inputs), each industry's output is modeled as a fixed proportion of an industry's value added and intermediate inputs to capture inter-industry linkages. These industry outputs are then bundled together into consumption goods that are purchased by consumers.

Consumption

Consumer behavior is modeled through use of an OLG framework that includes 55 generational cohorts (representing adults aged 21 to 75). Thus, in any one year, the model includes a representative individual optimizing lifetime consumption and savings decisions for each person aged 21 through 75 (i.e., 55 representative individuals) with perfect foresight. For each generational cohort, the endowment of human capital changes with age — growing early in life and declining later in life — following the estimate of Altig et al. (2001).[3] The model can be run

with 55 generational cohorts (one for each age) or 660 generational cohorts (one for each age and each of 12 income groups). The latter specification includes, for each age, a representative individual for each income decile plus a breakout of the top and bottom 2% of the income distribution. This analysis uses 55 generational cohorts (one for each age).

The utility of representative individuals is modeled as a CES function, allocating a composite commodity consisting of consumption goods and leisure over their lifetimes. Representative individuals optimize their lifetime utility through their decisions of how much to consume, save, and work in each period subject to their preferences and the after-tax returns from work and savings in each period. In determining their labor supply, representative individuals respond to the after-tax return to labor, as well as their overall income levels, in determining whether to work and thereby earn income that is used to purchase consumption goods or to consume leisure by not working.

Other features

The model includes a simple characterization of both federal and state and local governments. Government spending is assumed to be used for either (1) transfer payments to representative individuals or (2) the provision of public goods. Public goods are assumed to be provided by the government in fixed quantities through the purchase of industry outputs as specified in a Leontief function. This spending in the model can be financed by collecting taxes or borrowing. Borrowing, however, cannot continue indefinitely in this model so toggles are included to allow government transfers, government provision of public goods, or government tax policy to be used to achieve a selected debt-to-GDP ratio after a selected number of years. This selected debt-to-GDP ratio could be, for example, the initial debt-to-GDP ratio or the debt-to-GDP ratio a selected number of years after policy enactment. This analysis returns to the initial debt-to-GDP ratio.

Additionally, the EY GE Model is an open economy model that includes both capital and trade flows between the United States and the rest of the world. International capital flows are modeled through the constant portfolio elasticity approach of Gravelle and Smetters (2006).[4] This approach assumes that international capital flows are responsive to the difference in after-tax rates of return in the United States and the rest of the world through a constant portfolio elasticity expression. Trade is modeled through use of the Armington assumption, wherein products made in the United States versus the rest of the world are imperfect substitutes.

Table A1. Key model parameters

	Central	Low	High
Intertemporal substitution elasticity	0.4	0.3	0.5
Intratemporal substitution elasticity	0.6	0.5	0.7
Leisure share of time endowment	0.4	0.3	0.5
International capital flow elasticity	3.0	1.0	5.0
Capital-labor substitution elasticity	0.8	0.5	1.0
Adjustment costs	2.0	4.0	0.0

Source: Central key model parameters are generally from Joint Committee on Taxation, Macroeconomic Analysis Of The Conference Agreement For H.R. 1, The "Tax Cuts And Jobs Act," December 22, 2017 (JCX-69-17) and Jane Gravelle and Kent Smetters, "Does the Open Economy Assumption Really Mean That Labor Bears the Burden of a Capital Income Tax?," Advances in Economic Analysis and Policy 6(1) (2006): Article 3.

[1] Revenue estimate based on the budgetary effects of extending certain expiring revenue provisions reported in the supplemental data accompanying the Congressional Budget Office's April 2018 report The Budget and Economic Outlook: 2018 to 2028.

[2] See, for example, Shinichi Nishiyama, "Fiscal Policy Effects in a Heterogeneous-Agent Overlapping-Generations Economy With an Aging Population," Congressional Budget Office, Working Paper 2013-07, December 2013; Joint Committee on Taxation, Macroeconomic Analysis of the "Tax Reform Act of 2014, February 2014 (JCX-22-14); Joint Committee on Taxation, Macroeconomic Analysis of Various Proposals to Provide $500 Billion in Tax Relief, March 2005 (JCX-4-05); and, The President's Advisory Panel on Federal Tax Reform, Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System, November 2005.

[3] See David Altig, Alan Auerbach, Laurence Koltikoff, Kent Smetters, and Jan Walliser, "Simulating Fundamental Tax Reform in the United States," *American Economic Review* 91(3) (2001): 574-595.

[4] See Jane Gravelle and Kent Smetters, "Does the Open Economy Assumption Really Mean That Labor Bears the Burden of a Capital Income Tax?" *Advances in Economic Analysis and Policy* 6(1) (2006): Article 3.