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Switching to a Consumption-Based Tax from the Current Income Tax

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Executive Summary

For the last five years, the U.S. economy has struggled with high unemployment and anemic growth. Despite recent improvements, the national unemployment rate remains at 7.6 percent (May 2013). According to the most recent estimates, non-residential private fixed investment is still below pre-recession levels. Given these facts and the persistent budget problems, rising demands of the aging baby boomers, and increased global competition, policymakers are increasing their efforts to overhaul the tax code. If successful, this will be the first major tax reform since 1986.

According to economic research over the past two decades, switching from our current income tax to a consumption-based tax system could achieve the goals of stronger investment and faster economic growth. A pure consumption tax is defined as a system that taxes individuals on the goods and services they purchase and exempts all saving from tax. Most economists believe that switching to a system where the tax base depends primarily on consumption rather than income could increase saving, investment, real output, and long run economic growth.

Over the past several years, members of Congress, commissions, and others have presented policy makers with a number of proposals to reform the Federal tax system. The majority of these proposals retain income from all sources as the primary tax base for the taxation of both individuals and businesses. However, the tax reform proposals being given the most consideration by policymakers today would not provide the type of saving and investment incentives that economic research shows would have the strongest impact on U.S. economic growth since they are not proposing a shift away from taxes on income toward a consumption tax base.

In this paper, we discuss three policy proposals put forth by 2005 the President's Advisory Panel on Federal Tax Reform. The Panel looked at a progressive consumption tax (PCT) system that would completely eliminate the difference between the pre-tax and the after-tax return on investment. It also considered a more blended or hybrid tax structure that would move the current tax system towards a consumption tax, while preserving some features of income taxation. This blended option, called the Growth and Investment Tax Plan (GIT), would be more readily accepted by today's policymakers and the public due to its simplicity, lower rates, and retention of some of today's popular provisions such as the tax credit for mortgage interest. The panel also analyzed the Simplified Income Tax (SIT) plan which broadens the current income tax base.

Under GIT, households would file tax returns and pay tax on their wages and compensation based on three tax rates: 15, 25 and 30 percent. This system would include tax-exempt savings accounts that would shield many households from taxation on their savings. Businesses would pay a single tax rate of 30 percent on their cash flow. Cash flow is defined as total sales less purchases of goods and services from other businesses, less wages and other compensation paid to workers and could expense new investment. Non-financial businesses would not be taxed on income from financial transactions, such as dividends and interest payments, and would not receive deductions for interest paid or other financial flows.

Under PCT, the tax rates applicable to individuals and business cash flows would be slightly higher than GIT, 15, 25 and 35. There will be no taxation of capital income under the pure consumption tax system eliminating the need for special savings accounts. There would be lower deductions and exclusions for employee provided health insurance in order to maintain revenue neutrality.

The SIT provides four tax rate brackets for individuals: 15, 25, 30, and 33 percent. Other key features for individuals include replacing the mortgage interest deduction with a "home credit" equal to 15 percent of mortgage interest paid. Cost recovery allowances for business investment would be slowed.

Evaluation of these three plans by Office of Tax Analysis in U.S. Department of the Treasury concludes that both the GIT and the PCT would substantially increase the national capital stock and national income. In contrast, the SIT plan has very little impact on national income, the capital stock, net investment or consumption income.

As the United States faces the economic challenges of the twenty-first century, including funding the retirement of the "baby boom" generation as well as providing employment for workers of all ages, fundamental tax reform that moves the U.S. tax system toward greater reliance on consumption taxes can be an important policy lever for achieving stronger economic growth, funding important spending priorities and higher living standards.

Introduction

For the last five years, the U.S. economy has struggled with high unemployment and anemic growth. During the great recession (December 2007-October 2009), the country experienced a larger increase in unemployment than in any of the previous five recessions.[1] Despite recent improvements, the national unemployment rate remains at 7.6 percent (May 2013). According to the most recent estimates, non-residential private fixed investment is still below pre-recession levels. Given these facts and the persistent budget problems, rising demands of the aging baby boomers, and increased global competition, policymakers are increasing their efforts to overhaul the tax code. If successful, this will be the first major tax reform since 1986.

Continuous tax reform developments overseas, many of which have reduced corporate income tax rates, underscore the need for U.S. reform. U.S. firms are falling behind as is apparent from the decreasing share of U.S. companies among Fortune 500 global companies. Any new tax code should be designed to take into account global economic changes to promote increased investment and growth in the U.S. For example, an ACCF international comparison of capital cost recovery allowances for key energy equipment investment[2] shows that investments in the U.S. face slower cost recovery and higher effective tax rates than many of our trading partners. According to economic research over the past two decades, switching from our current income tax to a consumption-based tax system could achieve the goals of stronger investment and faster economic growth.

Current U.S. Tax System and Goals of Tax Reform

The current U.S. tax code can be described as a hybrid system that relies heavily on income tax with some features that resemble a consumption tax. A pure consumption tax is defined as a system that taxes individuals on the goods and services they purchase and exempts all saving from tax. The current U.S. tax code contains, tax preferred savings vehicles, such as IRA's and 401ks; these are features of the tax code that act like a consumption tax. Individuals can contribute pre-tax dollars to these accounts, tax is deferred on the accumulation of savings, and the income tax due is paid when these funds are withdrawn. In addition, the current tax system allows some investments to be expensed (deducted from taxable income in the first year). There is also accelerated depreciation which reduces the tax burden on some investment. Even though these "consumption tax like features" reduce the distortionary impact of the current tax system, they are selective and limited in scope. Most economists believe that switching to a system where the tax base depends primarily on consumption rather than income could increase saving, investment, real output, and long run economic growth.

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[1] International Labour Organization, "The Great Recession in the U.S." http://www.ilo.org/washington/ilo-and-the-united-states/spot-light-on-the-us-labor-market/the-great-recession-in-the-us/lang--en/index.htm

[2] American Council for Capital Formation, "International Comparison of Depreciation Rules and Tax Rates for Selected Energy Investments," Prepared by Ernst & Young, May 2, 2007. http://accf.org/wp-content/uploads/2007/05/internationalComparison.pdf

There are additional problems with the current state of the U.S. tax system. The tax code exists not only to raise revenue but also to achieve desired social and economic policy goals. The current U.S. tax system fails to satisfy the majority of these goals. According to a recent paper by C. Alan Garner, there are five possible goals for tax reform[3]:

- Simplicity: The current tax system is considered to be very complex system, which drains considerable resources from the economy in terms of man hours and financial resources. According to some estimates, the U.S. spends 6.1 billion hours annually dealing with the tax code, with nine out of 10 taxpayers relying on a paid tax preparers or tax software.[4]
- Stability: The 1986 act achieved many reforms and simplified the tax code but since then there have been frequent modifications to the U.S. tax code. Temporary provisions have become a normal part of the system. This uncertainty over the tax code further handicaps long-term investment and planning decisions.
- Fairness: Even though it is based on value judgments, one definition of fairness is that people or businesses in similar circumstances should be treated equally by tax law. Under the current tax system's numerous tax breaks, this is not the case.
- Adequate Revenue: This goal should be based on the question of what are the public spending priorities. The current budget deficit is the combined result of overspending and not enough revenues. Once the appropriate level of spending is determined, the tax code can better target a revenue goal.
- Economic Efficiency: It is widely accepted that current tax code distorts labor, saving, and investment decisions. For example, dividends and capital gains are taxed twice, once at the corporate level and then again at the individual level. This high level of taxation reduces overall investment by decreasing after-tax returns. At the same time, some tax breaks create over investment in some industries or assets. An efficient tax code should minimize these distortions by letting market forces drive the decision-making process.

Current Tax Reform Proposals under Discussion by Congress, the Administration and Public Policy Experts

As noted in the recent report by the Joint Committee on Taxation,[5] over the past several years, members of Congress, commissions, and others have presented to policy makers a number of proposals to reform the Federal tax system. The majority of the proposals reviewed retain income from all sources as the primary tax base for the taxation of both individuals and

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[3] C. Alan Garner, "Consumption Taxes: Macroeconomic Effects and Policy Issues," 2005, http://www.frbkc.org/Publicat/econrev/PDF/2q05garn.pdf

[4] National Taxpayer Advocate, "2012 Annual Report to Congress," December 2012, http://www.taxpayeradvocate.irs.gov/userfiles/file/2012-Annual-Report-to-Congress-Executive-Summary.pdf

[5] The Joint Committee on Taxation is a nonpartisan committee comprised of Members of the United States Congress, originally established under the Revenue Act of 1926. The Joint Committee is chaired on a rotating basis by the Chairmen of the Senate Finance Committee and the House Ways and Means Committee. The Joint Committee operates with an experienced professional staff of PhD economists, attorneys, and accountants, who assist Members of the majority and minority parties in both houses of Congress on tax legislation. The Committee is charged with assisting Congressional tax-writing committees and Members of Congress with development and analysis of legislative proposals and preparing official revenue estimates of all tax legislation considered by the Congress among other things. https://www.jct.gov/about-us/overview.html

businesses. Other proposals are more accurately characterized as consumption-based taxes. In addition, both House Ways and Means Chairman Dave Camp and Senate Finance Committee Chairman Max Baucus are working on their own approaches to reforming the federal tax code. The two Chairmen have posted discussion papers on their new website[6] but neither has yet proposed a comprehensive plan for overhauling the tax code.

Among the most prominent of the recent comprehensive reform proposals is the one issued on December 1, 2010 by President Obama's National Commission on Fiscal Responsibility and Reform, co-chaired by Erskine Bowles and Alan Simpson.[7] The goal of the proposal was to put forth recommendations that would meaningfully improve the long run fiscal outlook and would result in a balanced budget, excluding interest payments on the debt, by 2015. The illustrative tax plan outlined in the report reduces marginal income tax rates, broadens the tax base, simplifies the individual and corporate income tax by eliminating tax expenditures, and reduces the deficit by reducing spending. The individual income tax reform plan replaces the current six brackets with three brackets, 12, 22 and 28%, and repeals the Alternative Minimum Tax (AMT). All capital gains and dividends are taxed at ordinary income tax rates. The plan consolidates all retirement accounts and caps tax-preferred contributions to lower of $20,000 or 20% of income. On the business side, the plan proposes a single corporate income tax rate between 23% and 29% (28% under the illustrative proposal), paid for by eliminating corporate tax expenditures. The plan suggests adopting a territorial tax system in which foreign source income earned by U.S. corporations is not taxed in the U.S. The plan keeps the current subpart F income rules that address the income of a controlled foreign corporation (CFC), which is a corporation more than 50% controlled by U.S. shareholders.

Another proposal to reform the tax system was offered by the Bipartisan Policy Center's Debt Reduction Task Force, co-chaired by Senator Peter Domenici and Dr. Alice Rivlin. Similar to Bowles-Simpson, the goal of the proposal was to address the immediate needs for economic growth and to control Federal government debt in the long-term. Since originally released in November 2010, the plan has been updated. The revised plan, referred to as Domenici-Rivlin Debt Reduction Task Force Plan 2.0 (Dec 3, 2012),[8] aims to raise approximately $1.6 trillion more than current policy with a radically simplified tax system. On the individual side, the plan has two income tax brackets, 15 and 28%. Similar to Bowles-Simpson, Domenici-Rivlin also taxes capital gains and dividends as ordinary income. Rather than the current itemized deduction system, the plan provides a flat 15% refundable tax credit for charitable contributions and up to $25,000 per year of mortgage interest on a primary residence. On the business side, there is a flat 28% corporate tax rate. This plan eliminates most of the corporate tax expenditures, but retains accelerated depreciation for machinery and equipment and buildings other than rental housing, expensing of certain small investments, expensing of research and experimentation expenditures, employer defined benefit plans. Unlike Simpson-Bowles the plan maintains the current worldwide tax systems with deferral for the active income of controlled foreign corporations.

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[6] https://taxreform.gov/

[7] The National Commission on Fiscal Responsibility and Reform, December 2010, http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12_1_2010.pdf

[8] http://bipartisanpolicy.org/library/report/domenici-rivlin-debt-reduction-task-force-plan-20

In contrast to the two tax reform plans discussed above, which retain income as the tax base and featured prominently in the media, authors affiliated with the American Enterprise Institute (AEI) submitted a plan in 2011 to the Peter G. Petersen Foundation that replaces the income tax system with a progressive consumption tax.[9] The plan has two features: a household-level tax on wages and other compensation, and a flat tax on business cash flow. The tax on wages and other compensation, including fringe benefits (such as employer-provided health insurance and employer contributions to defined contribution plans), follows a graduated rate schedule with three rates: 15 percent, 25 percent, and 35 percent. The proposal repeals the corporate income tax and taxes businesses on a cash-flow basis for the goods and services they provide, so that investment is expensed rather than depreciated over time. Firm cash flows are subject to tax at a flat rate of 35%. Negative cash flows may be carried back for five years or carried forward indefinitely. Businesses, however, would be required to pay interest on their carry-forwards at the one-year Treasury rate.

In conclusion, the tax reform proposals being given the most consideration by policymakers today would not provide the type of saving and investment incentives that economic research shows would have the strongest impact on U.S. economic growth since they are not proposing a shift away from taxes on income toward a consumption tax base.

Consumption Tax versus Income Tax

Analyses over the past two decades by academic scholars and policy experts demonstrate that switching from the current federal income tax system to a broad based consumption tax system would have a positive impact on long term economic growth and living standards. While policy proposals range from a hybrid system to pure consumption tax system, the magnitude of the positive impact depends on the extent to which the proposed policy would reduce the tax on capital income.

For example, a 2005 report by the President's Advisory Panel on Tax Reform notes that "Taxing consumption rather than income would remove the saving disincentives that are central to income tax systems. Although one cannot know with absolute certainty the effect of raising the return on private saving by lowering the tax burden, most economic models suggest that such a change would result in higher household saving and a greater level of capital accumulation. Allowing businesses to deduct the cost of new investment immediately, rather than to depreciate assets over time, would encourage new investment. It also would eliminate the tax-induced differences between before-tax and after-tax returns on investment projects that are found in our current system."[10]

The President's Advisory Panel also observed that the increased level of capital accumulation that would follow the adoption of a U.S. consumption tax would lead to enhanced productivity growth which is the key to raising standards of living for American workers. **Figure 1** shows the historical relationship between changes in wages and productivity growth. The two move closely

[9] http://www.pgpf.org/solutionsinitiative
[10] President's Advisory Panel on Federal Tax Reform, "Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System," November 2005, http://www.treasury.gov/resource-center/tax-policy/Documents/Simple-Fair-and-Pro-Growth-Proposals-to-Fix-Americas-Tax-System-11-2005.pdf

together: wages grow when productivity grows, and wages stagnate when productivity declines. As real non-residential fixed investment in the U.S. is still below that of the fourth quarter of 2007, enhancing the incentives for new investment would promote both job growth and raise the productivity of the U.S. work force. (**Figure 2**)

An earlier report[11] by the Congressional Budget Office (CBO) analyzed the effect of switching from the federal income tax to a comprehensive consumption-based tax. CBO's report shows that substituting a broad-based consumption tax for an income tax would probably increase national saving and raise the living standards of future generations. They found that a consumption tax would increase the capital stock and raise the level of national output by between 1 percent and 10 percent, although CBO concludes that increases at the upper end of the range are unlikely.

The CBO study outlines a number of reasons why switching to a consumption-based tax would increase economic efficiency as well as output. First, the switch would eliminate the influence of taxes on the timing of consumption. Second, the new system might treat different sources of income more uniformly by including more of them in the tax base and subjecting all of them to similar tax rates. Third, a broader base would allow lower overall marginal tax rates, reducing the amount by which taxes affect relative prices and hence all kinds of economic decisions. As noted in the CBO study, as well as in previous section of this report, efficiency is not the only criterion to use in judging the desirability of a given tax reform. Administrative and compliance costs are also important factors. If a consumption tax offered substantial gains from reduced complexity, then even a minimal gain in economic efficiency would be an added bonus.

Other studies analyze a wide range of policy options and their economic impacts. For example, David Altig, Alan Auerbach, Laurence Kotlikoff, Kent Smetters and Jan Walliser compare the equity, efficiency and macroeconomic effects of five different tax policy proposals to the current U.S. federal income tax system.[12] The analysis uses a large scale dynamic simulation model. Each of the reforms replaces the federal personal and corporate income taxes and each is simulated assuming the same growth adjusted levels of government spending and government debt. The proposed reforms are:

- Proportional Income Tax: This proposal eliminates all personal exemptions and deductions. It applies a single tax rate to labor and capital income.
- Proportional Consumption Tax: This proposal differs from the proportional income tax by permitting 100 percent expensing of new investment. The tax can be implemented as a tax on wages with all saving exempt from tax at household level, and as a cash flow tax on business.
- Flat Tax: This tax differs from the clean consumption tax by including a standard deduction against wage income and by exempting implicit rental income of owner occupied housing and consumer durables.

[11] Congressional Budget Office, "The Economic Effects of Comprehensive Tax Reform," July 1997. http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/0xx/doc36/taxrefor.pdf

[12] David Altig, Alan J. Auerbach, Laurence J. Kotlikoff, Kent A. Smetters, Jan Walliser, "Simulating Fundamental Tax Reform in the United States," American Economic Review, June 2001, pp. 574-595.

- The Flat Tax with Transition Relief: This proposal helps existing asset holders by permitting continued depreciation of old capital.
- The X Tax: This reform aids lower income tax payers by substituting the flat tax's single-rate wage tax with a progressive rate. In order to recoup the lost revenue, the business cash flow tax rate is set at the highest tax rate applicable to wage income.

These reforms differ in the treatment of marginal capital income, the extent of base broadening and progressivity. Among the five proposals, the proportional consumption tax had the highest positive impact on long-run output, by more than 9 percent. However, reducing the progressivity of the tax system would have a negative impact on the welfare of the poorest members of society. Introducing standard deductions or transition reliefs lessens some of these distributional impacts. However, that comes in the expense of reducing the impact on long-run economic growth. Under the flat tax, long-run economic output increases by less than 4 percent. In terms of efficiency, equity, and long term output growth, the X tax had the most balanced result. This reform raises long term output by 6.4 percent. Wealthier taxpayers face higher effective tax rates on their labor supply and the X tax provides a greater long-run benefit to the poor than to wealthy taxpayers.

In 1997, the Joint Committee on Taxation (JCT), led by Congressman Bill Archer and Senator William V. Roth, hosted a symposium of economists who were heavily involved with developing models for U.S. economy. The papers presented at this symposium were the result of a year long modeling experiment by these noted economists. The resulting discussion was published by JCT in a report entitled "Tax Modeling Project and 1997 Tax Symposium Papers"[13] The modeling exercise by these researchers focused on a broad based income tax and a broad based consumption tax. The economic impacts of these simulations are shown in **Table 1**.

Even though the magnitudes differ, the effects of a consumption tax on GDP are generally positive over the medium and long terms. For example, the Jorgenson-Wilcoxen model predicts that real GDP would be 3.3 percent higher each year in the long run under a consumption tax, compared to 1.3 percent higher under a unified income tax. The Auerbach, Kotlikoff, Smetters, and Walliser model predicts even greater gains in the long run (7.5 percent) under a consumption tax and losses (-3.0 percent of GDP) under a unified income tax. The impact of the choice of tax base is more pronounced when the capital stock is considered: The Engen-Gale analysis shows that the capital stock would be 9.8 percent higher in the long run under a consumption tax but 1.6 percent smaller under a unified income tax. The Auerbach et al. analysis has a 31.5 percent higher capital stock in the long-run under the consumption tax compared with a 10.5 percent lower capital stock under the income tax. The majority of the studies, regardless of what model is used, seem to indicate that the economy would fare better under a "pure" consumption tax than under a "pure" income tax or under current law.

Finally, an earlier ACCF study conducted by Dr. Allen Sinai analyzed the economic impact on the U.S. if we had switched in to a consumption tax system in 1991. Under this system, all investment was expensed, all saving was deductible, and interest expense was not deductible.

[13] Joint Committee on Taxation, "Tax Modeling Project and 1997 Tax Symposium Papers," November 20, 1997. https://www.jct.gov/publications.html?func=startdown&id=2940

The analysis concludes that U.S. economic growth would have been significantly stronger over the 1991 and 2004 period under a consumption tax than under our income tax. Dr. Sinai's results show that by 2004, real GDP would have been 5.2 percent higher; business capital spending would have been 36 percent higher; and saving, equities, and federal tax receipts would also have been greater (see **Table 2**).

U.S. Tax Reform: What Kind of Consumption Tax?

Even though the economic literature provides considerable evidence on the economic benefits of a consumption tax, current tax reform discussions fail to consider policy options that would move U.S. to a more consumption-based tax system. However, in 2005, the President's Advisory Panel on Federal Tax Reform, headed by Chairman Connie Mack and Vice-Chairman John Breaux,[14] considered two of such systems among other policy reform options that could be the foundation for major tax reform.[15] The Panel looked at a progressive consumption tax system that would completely eliminate the difference between the pre-tax and the after-tax return on investment. It also considered a more blended or hybrid tax structure that would move the current tax system towards a consumption, tax, while preserving some features of income taxation. This blended option, called the Growth and Investment Tax Plan (GIT), is outlined in full detail in the Panel's report. It seems likely that the GIT proposal would be accepted more readily by today's policymakers and the public than would the progressive consumption tax.

The GIT is the best form of the consumption tax because it:

- Is much simpler than the current income tax and has lower rates
- Retains some of the provisions popular with middle income taxpayers including a tax credit for mortgage interest paid
- Allows expensing (first year write off) for all new business investment which will encourage capital formation
- By continuing to tax dividends, capital gains and interest received by individuals (albeit at a lower rate the plan would forestall some of the criticism by those who think capital income should be taxed.

Thus, the remainder of this report will focus primarily on the blended option (the GIT) rather than on the progressive consumption tax.

* Growth and Investment Tax Plan

The GIT is described in detail in **Tables 3A** and **3B**. According to the Panel's outline, households would file tax returns and pay tax on their wages and compensation based on three tax rates: 15, 25 and 30 percent. Most households would face a lower tax rate than under the

[14] The members of the Panel were: William E. Frenzel, Elizabeth Garrett, Edward P. Lazear, Timothy J. Muris, James M. Poterba, Charles O. Rossotti and Liz Ann Sonders.

[15] President's Advisory Panel on Federal Tax Reform, "Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System," November 2005, http://www.treasury.gov/resource-center/tax-policy/Documents/Simple-Fair-and-Pro-Growth-Proposals-to-Fix-Americas-Tax-System-11-2005.pdf

current income tax system. This system would be different than a pure consumption tax system by imposing a reduced flat rate on capital income (capital gains, dividends and interest) received by individuals. This rate would be set at 15 percent. The current personal exemption, standard deduction and child tax credit would be replaced with a Family Credit available to all taxpayers at the amounts shown in Table 3A. There would be a deduction for charitable gifts and health insurance, and the mortgage interest deduction would be replaced by a Home Credit. Phase outs (multiple provisions that phase out with income such as earned income tax credit, lifetime learning credit, tuition deduction, student loan interest deduction etc.) and the Alternative Minimum Tax would be eliminated as well as the deduction for state and local taxes.

This system would include tax-exempt savings accounts that would shield many households from taxation on their savings, such as “Save for Retirement” and “Save for Family” accounts. Assets held outside of such accounts would be subject to a reduced 15 percent capital income tax rate. However, employer sponsored retirement accounts would be taxed under the current “Roth IRA” structure, meaning that contributions would be made with after-tax dollars, but that withdrawals would be tax free.

Under the GIT, businesses would pay a single tax rate of 30 percent on their cash flow. Cash flow is defined as total sales less purchases of goods and services from other businesses, less wages and other compensation paid to workers. This definition implies that businesses can immediately expense all new investment. As shown in Figure 3, the differences in effective tax rates on alternative investments would be reduced under the GIT, thus providing a lower, more uniform tax burden on the returns of marginal business investments. Non-financial businesses would not be taxed on income from financial transactions, such as dividends and interest payments, and would not receive deductions for interest paid or other financial flows. The elimination of interest deductibility would equalize different types of financing (debt versus equity) and get rid of tax induced distortions on investment decisions.

According to the calculations of the Panel, the GIT would lower the marginal effective tax rate (measure of difference between an investment’s pre-tax and after-tax return) to 6 percent. This would equalize the tax burden on different types of investment and significantly encourage capital formation and attract foreign capital. **Figure 3** shows how the combination of expensing and more equal treatment of interest and dividends would lower the tax burden on the returns of marginal business investment.

The Panel also considered special rules for financial firms. Under their recommendation, financial firms would consider all principal and interest inflows as taxable and deduct all principal and interest outflows.

The Panel’s recommendation for the taxation of international income was to apply tax on a “destination-basis” thereby treating all domestic consumption equally, regardless of where the goods were produced. Under this system, exports would be excluded from tax base while imports would be included. For example, if a U.S. producer produces a good in the U.S. for $90 and sells it abroad for $100, it would not be taxed on the $100 of income but would receive a rebate for the production cost of $90.This has the effect of eliminating the tax burden on goods that are sold

abroad. The tax rebate that the seller receives at the point of export is known as a border tax adjustment.

The Transition to the Growth and Investment Tax Plan

As the Treasury report notes, replacing the current income tax with the Growth and Investment Tax Plan would affect the value of many assets and might have a negative impact on a number of households and on some business taxpayers. Thus the Panel recommends providing some transition relief over a five year period for most provisions impacting the business sector. Below is a brief review of several key transition issues along with the Panel's recommendations on how to mitigate the impact of moving to the GIT from the current income tax:

- Transition relief on existing depreciation allowances: As noted in the report, "Depreciation allowances on assets put in place prior to the effective date for the Growth and Investment Tax Plan should be phased out evenly over a five-year period."[16]
- Transition relief for businesses with outstanding debt: Panel recommends the same five-year phase out structure, followed by deductions of 60, 40 and 20 percent. Under this rule, 80% of an interest deduction allowable under current law would be permitted in the first year after the effective date of GIT.
- Transition relief for firms that might be affected by border tax adjustment: If exchange rates do not adjust as rapidly as economic theory predicts, then border tax adjustments would place an undue burden on imports and importers. The Panel therefore recommends "a four-year phase-in period for border tax adjustments. The phase-in rules would be administered on a firm-by-firm basis, and they would be limited to a base amount, calculated as the average value of import purchases, or export sales, in the two years before the Growth and Investment Tax Plan took effect."[17]
- Transition rules for financial institutions: "Because financial firms never received a deduction against cash flow when raising the capital for outstanding loans, it would be unfair to levy tax on returns of capital when the lending firm receives them. Interest on loans extended prior to the effective date of the Growth and Investment Tax Plan, however, would be taxed as a component of individual cash flow. As with debt contracts for homeowners and non-financial businesses, any modifications to existing contracts would be treated as new contracts and not entitled to transition relief"[18]

[16] Ibid, pg 173
[17] Ibid, pg 173
[18] Ibid, pg 174

* The Progressive Consumption Tax Plan

The GIT plan described above is not a pure consumption tax system since it imposes a tax on capital income. The panel also described a pure consumption tax plan, called the Progressive Consumption Tax Plan (PCT). The differences between the PCT and the GIT are:

- No taxation of capital income under the PCT at the household level,
- No need for special savings accounts such as "Save for Retirement" and "Save for Family" accounts since there is no tax on savings under the PCT,
- Lower deduction and exclusion for employee-provided health insurance coverage for revenue neutrality under the PCT, and
- Higher top individual and business cash flow tax rates for revenue neutrality (rates will be 15, 25 and 35 percent) under the PCT.

This system would greatly simplify record keeping and the marginal effective tax rate on new investment would be zero.

The PCT plan was not chosen by the President's Advisory Board as the preferred consumption tax option primarily because "it would result in a less progressive distribution of tax burden"[19] or in other words it was considered too difficult to overcome the objections of those who think capital income should be subject to taxed.

Macroeconomic Impact of Switching to a Consumption Tax Compared to an Income Tax

Shortly after the publication of its report, the impact of the Panel's proposals on the U.S. economy was evaluated by Robert Carroll, John Diamond, Craig Johnson and James Mackie by Office of Tax Analysis in U.S. Department of the Treasury.[20] Using three different models, the Solow growth model, the Ramsey infinite horizon growth model, and an overlapping generation (OLG) life cycle model, the authors did a dynamic macroanalysis of three different tax reform proposals: the Growth and Investment Tax (GIT), the Progressive Consumption Tax (PCT) and the Simplified Income Tax (SIT).

The GIT and PCT are described above. The Simplified Income Tax (SIT) provides four tax rate brackets for individuals: 15, 25, 30, and 33 percent. Other key features for individuals include replacing the mortgage interest deduction with a Home Credit equal to 15 percent of mortgage interest paid, limited in a manner related to the taxpayer's regional average housing prices. A deduction is allowed for charitable contributions subject to a floor of one percent of income. In addition, dividends received by individuals from U.S. earnings of U.S. corporations are fully

[19] Ibid pg 184

[20] Robert Carroll, John Diamond, Craig Johnson and James Mackie III, "A Summary of the Dynamic Analysis of the Tax Reform Options Prepared for the President's Advisory Panel on Federal Tax Reform," May 25, 2006. http://www.treasury.gov/resource-center/tax-policy/Documents/Summary-of-Dynamic-Analysis-of-Tax-Reform-Options-5-2006.pdf

excludable from income. Capital gains of individuals from sales or exchanges of stock of U.S. companies are 75 percent excludable, resulting in a tax rate from 3.75 to 8.25 percent depending on the applicable individual rate bracket. Interest income is fully includable as regular income. Large businesses with gross receipts of $10 million or greater are subject to tax at a single 31.5 percent rate. In place of expensing, the simplified depreciation system applies. The simplified depreciation system provides for four categories of depreciable assets. Depreciation is computed by multiplying the taxpayer's average balance in each asset category by the depreciation rate for that category. The four depreciation rates are 30, 7.5, 4, and 3 percent. [21]

The authors conclude that both the GIT and the PCT substantially increase the national capital stock and national income.
In contrast, the SIT has very little impact on national income, the capital stock, net investment or consumption income (see the simulation results shown in Table 4).

For example, the models suggest that the GIT could lead to long-run increases in the capital stock ranging from 5.8 to 20.4 percent and long-run increases of national income ranging from 1.4 to 4.8 percent. The growth effects of the PCT were the largest of the plans modeled, with long-run increases in the capital stock ranging from 8.0 to 27.9 percent, and long-run increases in national income ranging from 1.9 to 6.0 percent. The analysis by Carroll, et. al. concludes that the options that move the tax system in the direction of a consumption tax base the most, the PCT and GIT, provide the greatest increases in capital accumulation and national output and substantially outperform the SIT. The SIT increases long-run national income by an average of only 0.4 percent and the capital stock increases range from 0.9 to 2.3 percent. The strongly positive results for the two consumption tax approaches are consistent with a wide body of previous research.[22]

Current Public Policy Challenges: Funding Infrastructure and Retirement Security

To meet the economic policy challenges we face within the next 15–20 years, plans for major tax reform should be at the forefront of policymakers' agendas. The challenges we face are daunting, for example a recent report by the American Society of Civil Engineers shows that the cost of rebuilding and expanding the country's roads, bridges, water systems and the electrical grid will require expenditures of $157 billion a year between now and 2020.[23] Another key challenge is to fund the retirement of our aging baby boomers who are leaving the work force in ever increasing numbers. While the U.S. population is still growing, the ratio of retirees to workers is also growing. According to Boston College's National Retirement Risk Index,[24] 53 percent of households are "at risk" of not having enough savings to maintain their living standards after retirement. The inclusion of the health care costs further increases the percent of households at risk. The

[21] https://www.jct.gov/publications.html?func=startdown&id=4517
[22] For example, see Joint Committee on Taxation (1997) and Altig *et al.* (2001).
[23] http://www.asce.org/failuretoact/
[24] http://crr.bc.edu/special-projects/national-retirement-risk-index/

Annual Retirement Confidence Survey conducted by Employee Benefit Research Institute and Mathew Greenwald & Associates points out the main reason of this risk: lack of savings. According to the survey, more than half of workers surveyed (57 percent) reported less than $25,000 in total household savings and investment (excluding the value of their primary homes and any defined benefit pension plans).[25]

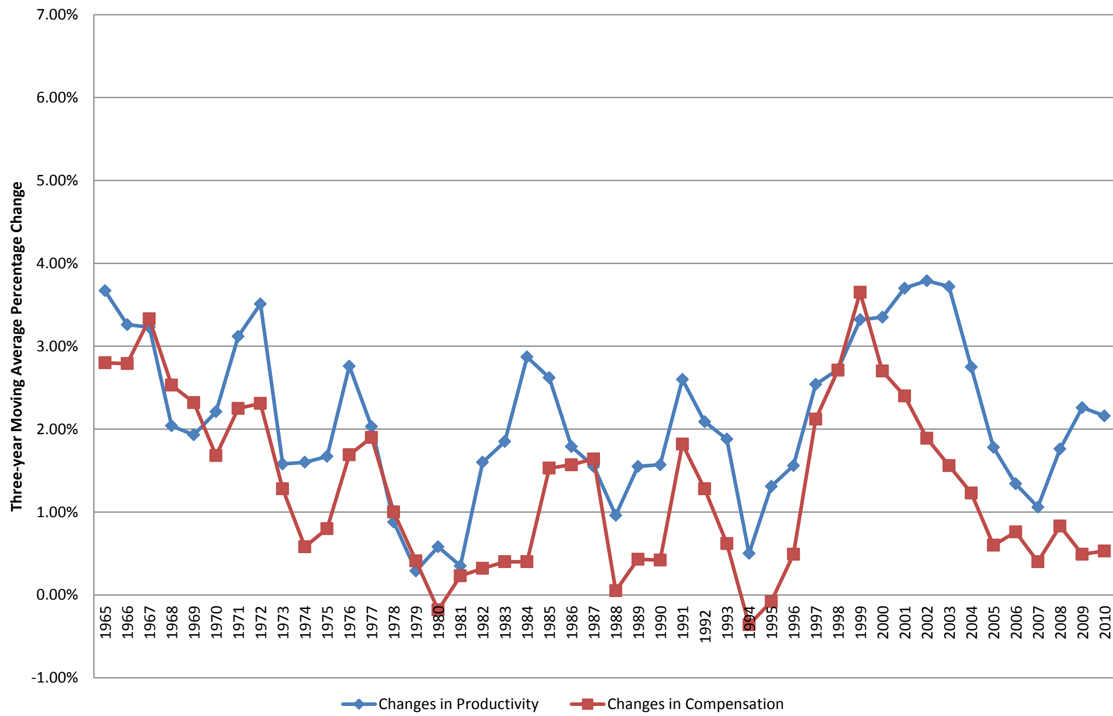
Providing for the country's needs, whether it is infrastructure or lack of retirement savings, will require faster economic growth, which in turn will help generate the tax revenues that will help fund needed expenditures.

Conclusions

As described above, a substantial body of research suggests that fundamental tax reform and more reliance on consumption taxes could have a profound, positive effect on long-term economic growth. Most previous economic analyses of the impact of moving toward a consumption tax base suggest at least a 3% increase in long-run output. Even small changes in economic growth rates can make a big difference in living standards; a 3 percent increase in output would increase GDP by almost $500 billion annually and would likely raise wages and compensation by about $330 billion. As the United States faces the economic challenges of the twenty-first century, including funding the retirement of the "baby boom" generation as well as providing employment for workers of all ages, a fundamental tax reform that moves the U.S. tax system toward greater reliance on consumption taxes can be an important policy lever for achieving stronger economic growth, funding important spending priorities and higher living standards.

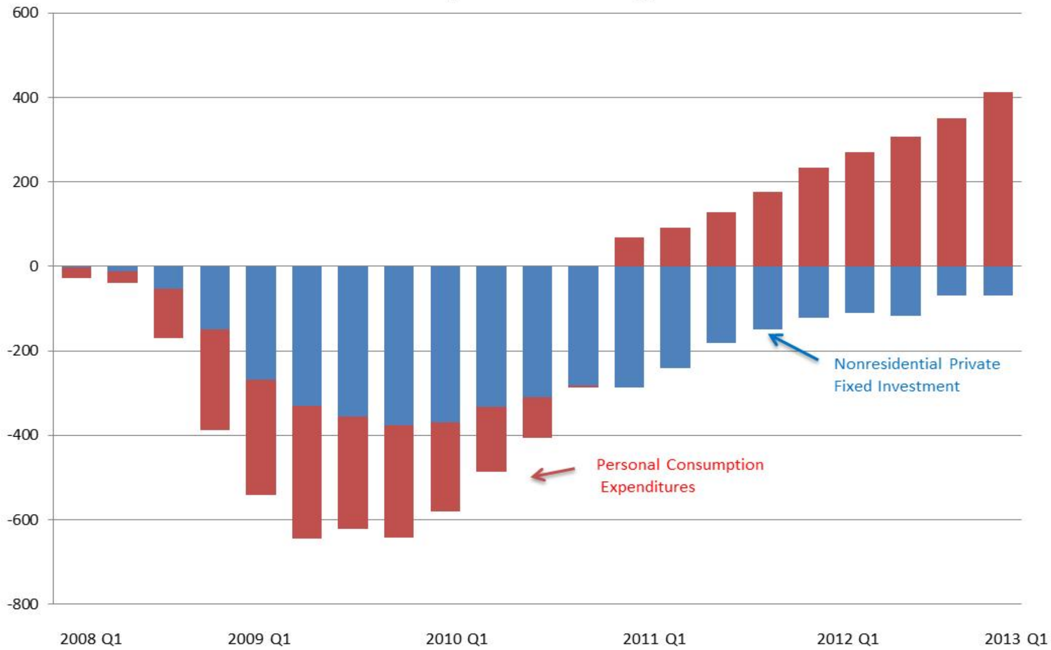
[25] EBRI's 2013 Retirement Confidence Survey, http://www.ebri.org/pdf/surveys/rcs/2013/PR1013.19Mar13.RCS.pdf

Figure 1. Productivity and Compensation Trends



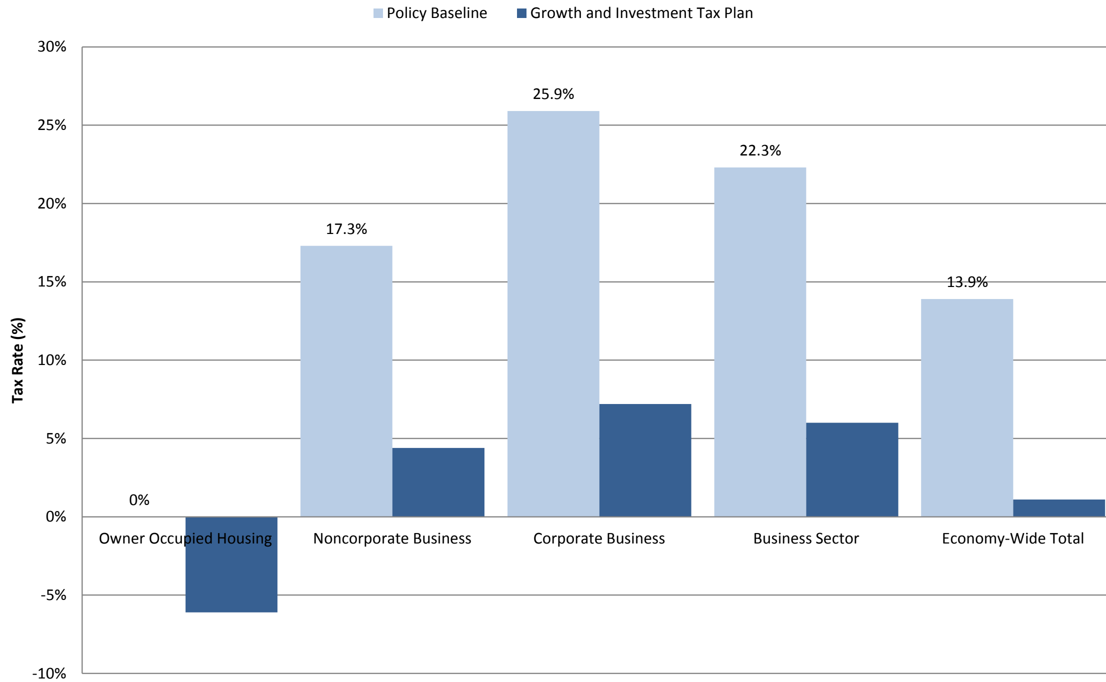
Source: 2013 Economic Report of the President, Table B-49. Calculations by American Council for Capital Formation

Figure 2. Key Quarterly GDP Components Compared to 2007 4th Quarter (Billions of 2005$)



Source: National Economic Accounts, U.S. Department of Commerce, Bureau of Economic Analysis.

Figure 3. Comparison of Effective Tax Rates on Different Types of Investment



Source: President's Advisory Panel on Federal Tax Reform, "Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System," November 2005, http://www.treasury.gov/resource-center/tax-policy/Documents/Simple-Fair-and-Pro-Growth-Proposals-to-Fix-Americas-Tax-System-11-2005.pdf

Table 1. Impact of Tax Reform on GDP and Capital Stock Growth						
(Percent Differences from Current Tax Code Baseline)						
	Consumption Tax			**Unified Income Tax**		
Summary Variables	**2005**	**2010**	**Long Run**	**2005**	**2010**	**Long Run**
REAL GDP:						
Fullerton-Rogers—low1	---	---	1.7	---	---	1.8
Fullerton-Rogers—high2	---	---	5.8	---	---	3.8
Auerbach, Kotlikoff, Smetters, & Walliser	4	5	7.5	-1.7	-2.1	-3
Engen-Gale	1.8	2.1	2.4	-0.2	-0.3	-0.5
Jorgenson-Wilcoxen	3.6	3.3	3.3	1.6	1.4	1.3
Macroeconomic Advisers (transition relief)	1.4	1.3	5.4	---	---	---
Robbins	16.4	16.9	---	14.6	15.4	---
DRI Inc./McGraw-Hill	4.7	---	---	-1.1	---	---
DRI Inc./McGraw-Hill—“VAT”	-4.2	---	---	---	---	---
Gravelle	0.7	1	3.7	0.6	0.7	1.8
Coopers & Lybrand	1.2	---	---	1.1	---	---
CAPITAL STOCK:						
Fullerton-Rogers—low1	---	---	5.2	---	---	5.4
Fullerton-Rogers—high2	---	---	23.8	---	---	11.8
Auerbach, Kotlikoff, Smetters, & Walliser	14	19.1	31.5	-4.2	-5.9	-10.5
Engen-Gale	7	7.6	9.8	-0.7	-1	-1.6
Jorgenson-Wilcoxen	0.9	0.6	0.3	-2	-2.3	-2.6
Macroeconomic Advisers (transition relief)	4.3	4.8	13.2	---	---	---
Robbins	47	57.2	---	38.8	48.6	---
DRI Inc./McGraw-Hill	13.7	---	---	-1.5	---	---
DRI Inc./McGraw-Hill—“VAT”	-0.7	---	---	---	---	---
Gravelle	1.7	2.7	11.2	0.5	0.9	4.1
Coopers & Lybrand	1.5	---	---	1.1	---	---
Notes:						
1. Assumes leisure-consumption (intratemporal) and intertemporal elasticities both are 0.15.						
2. Assumes leisure-consumption (intratemporal) and intertemporal elasticities both are 0.50.						
Source: Joint Committee on Taxation, “Tax Modeling Project and 1997 Tax Symposium Papers,” November 20, 1997.						
https://www.jct.gov/publications.html?func=startdown&id=2940						

Table 2. Economic Impact on the United States of Switching to a Consumption Tax in 1991			
Expensing business investment, removal of the business and personal interest deduction, and tax exemption of savings			
	Average 1991-1995	**Average 1996-2000**	**Average 2001-2004**
Real GDP -- Level (Billions of $96)			
Base	7,085.8	8,499.6	10,113.1
Simulation of consumption tax	7,203.2	8,890.0	10,637.7
(Difference in level)	117.5	390.5	524.6
(Percent change in level)	1.7%	4.6%	5.2%
Business Capital Spending, Total (Billions of $96)			
Base	684.2	1,092.0	1599.6
Simulation of consumption tax	824.9	1,495.60	2,168.80
(Difference in level)	140.7	403.5	569.2
(Percent change in level)	20.6%	37.0%	35.6%
Consumption (Billions of $96)			
Base	4,761.7	5,717.2	6,746.3
Simulation of consumption tax	4,773.3	5,843.4	7,021.5
(Difference in level)	11.6	126.1	275.3
(Percent change in level)	0.2%	2.2%	4.1%
	Cumulative 1991-1995	**Cumulative 1996-2000**	**Cumulative 2001-2004**
Total Receipts			
Base	6,210.50	8,853.20	9,179.30
Simulation of consumption tax	5,745.50	8,821	9,607.70
(Difference in level)	-465	-32.2	428.5

Source: Institute for Policy Innovation, "U.S. Capital Formation: How the U.S. Tax Code Discourages Investment," Margo Thorning, February 2002, http://www.ipi.org/docLib/PR170-Thorning-Capital.pdf-OpenElement.pdf

Table 3A. Growth Investment Tax for Households	
Provisions	**Growth and Investment Tax Plan**
Households and Families	
Tax Rates	Three tax brackets: 15%, 25%, 30%
Alternative Minimum Tax	Repealed
Personal exemption	Replaced with Family Credit available to all taxpayers: $3,300 credit for married couples, $2,800 credit for unmarried taxpayers with child, $1,650 credit for unmarried taxpayers, $1,150 credit for dependent taxpayers; additional $1,500 credit for each ch
Standard deduction	
Child tax credit	
Earned income tax credit	Replaced with Work Credit (and coordinated with the Family Credit); maximum credit for working family with one child is $3,570; with two or more children is $5,800
Marriage penalty	Reduced. Tax brackets and most other tax parameters for couples are double those of individuals
Other Major Credits and Deductions	
Home mortgage interest	Home Credit equal to 15% of mortgage interest paid; available to all taxpayers; mortgage limited to average regional price of housing (limits ranging from about $227,000 to $412,000)
Charitable giving	Deduction available to all taxpayers (who give more than 1% of income); rules to address valuation abuses
Health insurance	All taxpayers may purchase health insurance with pre-tax dollars, up to the amount of the average premium (estimated to be $5,000 for an individual and $11,500 for a family)
State and local taxes	Not deductible
Education	Taxpayers can claim Family Credit for some full-time students; simplified savings plans
Individual Savings and Retirement	
Defined contribution plans	Consolidated into Save at Work plans that have simple rules and use current-law 401(k) contribution limits; AutoSave features point workers in a pro-saving direction (Save at Work accounts would be "prepaid" or Roth-syle)
Defined benefit plans	No change
Retirement savings plans	Replaced with Save for Retirement accounts ($10,000 annual limit) available to all taxpayers
Education savings plans	Replaced with Save for Family accounts ($10,000 annual limit); would cover education, medical, new home costs, and retirement saving needs; available to all taxpayers; refundable Saver's Credit available to low-income taxpayers
Health savings plans	
Dividends received	Taxed at 15% rate
Capital gains received	Taxed at 15% rate
Interest received (other than tax exempt municipal bonds)	Taxed at 15% rate
Social Security benefits	Replaces three-tiered structure with a simple deduction. Married taxpayers with less than $44,000 in income ($22,000 if single) pay no tax on Social Security benefits; fixes marriage penalty; indexed for inflation

Source: President's Advisory Panel on Federal Tax Reform, "Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System," November 2005, http://www.treasury.gov/resource-center/tax-policy/Documents/Simple-Fair-and-Pro-Growth-Proposals-to-Fix-Americas-Tax-System-11-2005.pdf

Table 3B. Growth Investment Tax for Businesses	
Provisions	**Growth and Investment Tax Plan**
Small Business	
Tax Rates	Sole proprietorships taxed at individual rates (top rate lowered to 30%); Other small businesses taxed at 30%
Recordkeeping	Business cash flow tax
Investment	Expensing of new investment
Large Business	
Tax Rate	30%
Investment	Expensing for all new investment
Interest paid	Not deductible (except for financial institutions)
Interest received	Not taxable (except for financial institutions)
International tax system	Destination-basis (border tax adjustments)
Corporate AMT	Repealed

Source: President's Advisory Panel on Federal Tax Reform, "Simple, Fair, & Pro-Growth: Proposals to Fix America's Tax System," November 2005, http://www.treasury.gov/resource-center/tax-policy/Documents/Simple-Fair-and-Pro-Growth-Proposals-to-Fix-Americas-Tax-System-11-2005.pdf

Table 4. Macroeconomic Effect of Tax Reform Options: Percentage Change from Initial Steady-State for Selected Variables and Years After Reform									
	Progressive Consumption Tax			**Growth and Investment Tax**			**Simplified Income Tax**		
	Budget Window*	**Year 20**	**Long-run**	**Budget Window***	**Year 20**	**Long-run**	**Budget Window***	**Year 20**	**Long-run**
National Income									
Ramsey Growth Model	2.3%	4.5%	6.0%	1.9%	3.7%	4.8%	0.0%	0.2%	0.3%
OLG Model	0.7%	2.6%	2.8%	1.5%	2.1%	2.2%	0.4%	0.8%	0.9%
Solow Growth Model	0.2%	0.6%	1.9%	0.1%	0.4%	1.4%	0.0%	0.1%	0.2%
Capital Stock									
Ramsey Growth Model	5.1%	16.7%	27.9%	3.7%	12.1%	20.4%	0.4%	1.4%	2.3%
OLG Model	3.3%	9.8%	14.0%	3.0%	7.5%	9.8%	0.1%	0.7%	1.3%
Solow Growth Model	0.7%	2.5%	8.0%	0.5%	1.8%	5.8%	0.1%	0.3%	0.9%
Labor Supply									
Ramsey Growth Model	1.4%	0.7%	-0.5%	1.3%	1.0%	0.1%	-0.1%	-0.2%	-0.3%
OLG Model	0.5%	1.0%	0.9%	1.2%	0.7%	0.6%	0.3%	0.4%	0.4%
Solow Growth Model	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Consumption									
Ramsey Growth Model	-2.7%	2.0%	5.6%	-1.6%	2.0%	4.8%	-0.4%	-0.1%	0.2%
OLG Model	-1.7%	1.3%	2.2%	-0.4%	1.3%	1.8%	0.4%	0.8%	1.0%
Solow Growth Model	-0.4%	0.2%	1.9%	-0.3%	0.1%	1.4%	-0.1%	0.0%	0.2%
Net Investment									
Ramsey Growth Model	59.1%	43.7%	27.9%	42.6%	31.9%	20.4%	4.8%	3.4%	2.3%
OLG Model	30.7%	22.4%	15.2%	26.2%	15.3%	10.7%	1.3%	2.1%	1.3%
Solow Growth Model	7.9%	7.9%	8.0%	5.7%	5.7%	5.8%	0.9%	0.9%	0.9%

* Average percentage change over the first ten years after reform enacted.

Source: Robert Carroll, John Diamond, Craig Johnson and James Mackie III, "A Summary of the Dynamic Analysis of the Tax Reform Options Prepared for the President's Advisory Panel on Federal Tax Reform," May 25, 2006. http://www.treasury.gov/resource-cente