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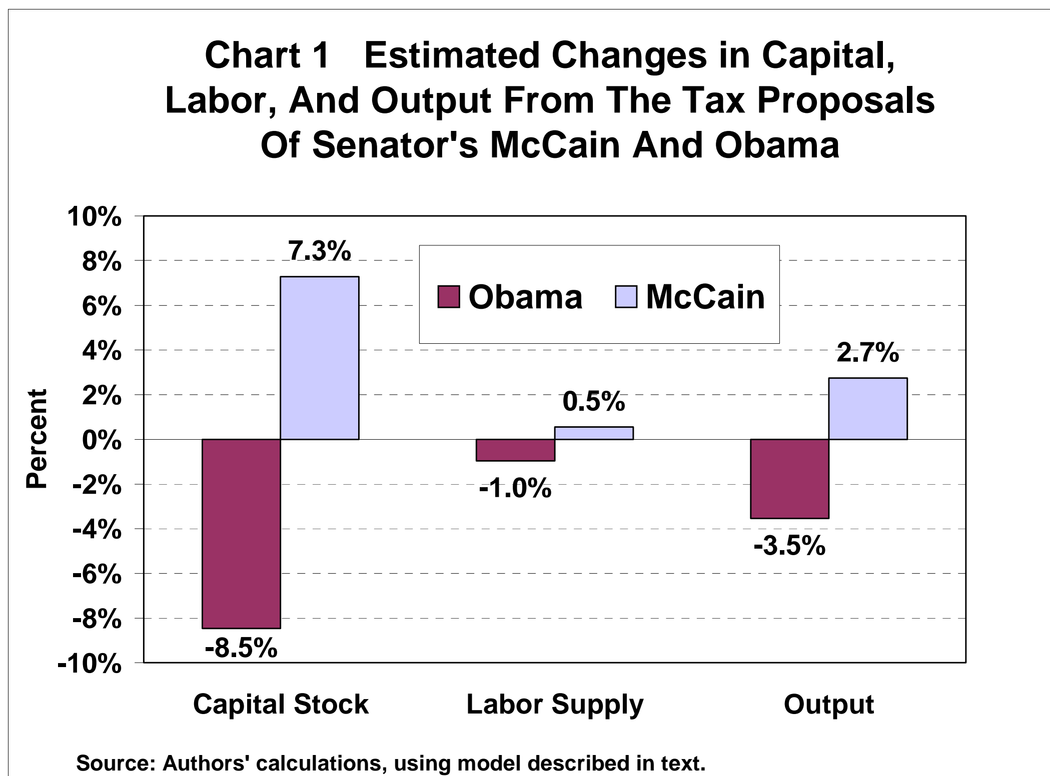
THE CANDIDATES' TAX PROPOSALS: THEIR IMPACT ON TAXPAYERS AND THE ECONOMY

Introduction and summary

Taxes are an important issue in this year's Presidential contest. Senators John McCain and Barack Obama have sharply different visions of how taxes affect economic activity and what modifications to the current system should be made.

Senator McCain's tax plan focuses mainly on enhancing economic growth and job creation by reducing marginal tax rates on labor and capital income and by improving economic efficiency. It would increase capital formation and raise pre-tax incomes across the board. The income gains would raise after-tax incomes for people of all income levels, even for those not benefitting directly from the Senator's tax reductions.



Institute for Research on the Economics of Taxation

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Senator Obama's tax plan focuses mainly on income redistribution. It would raise marginal tax rates on capital income, and on labor income on a weighted average basis. It would give refundable tax credits to selected income classes and for selected activities. The marginal rate hikes would discourage capital formation and reduce pre-tax incomes across the board. These income losses must be counted as added costs to the public caused by the tax changes. After-tax, after-credit incomes would rise or fall for different groups depending on the sizes of the rebates they receive, the tax increases they pay, and the declines in their pre-tax incomes. Many people receiving increased tax credit payments under the Obama plan would nonetheless have a reduction in their after-tax incomes because of the drop in pre-tax wages.

When fully phased in, and all economic adjustments are made, the McCain tax plan would increase the private sector portion of GDP relative to the baseline by about 2.7 percent, and the Obama tax plan would reduce private sector GDP by about 3.5 percent, a significant 6.2 percent difference in output and income between the two plans. (See Chart 1.) The difference in private sector capital accumulation would be 15.8 percent or $4.1 trillion in favor of McCain. Hourly wages before-tax would be up 2.2 percent under McCain, down 2.6 percent under Obama, a 4.8 percent difference. Hours worked would be 0.5 percent higher under McCain, and 1 percent lower under Obama.

The dynamic economic response to the McCain proposals would fully offset the cost of his four major tax elements: the lower corporate and estate tax rates, partial expensing, and the rise in the dependents exemption, for a net revenue gain of about $16 billion. The dynamic economic response to the Obama plan would be to reduce tax revenues and make the plan more expensive than it appears at first glance. His business tax increases ("loophole" closings) would result in higher corporate tax revenues, but not as much as the static revenue forecast. His increases in the two top marginal income tax rates, the tax rates on capital gains and dividends, and other marginal work disincentives would depress personal income tax and payroll tax receipts, and trim other revenues, resulting in a net revenue loss of about $53 billion a year.

We analyze some of the features of the candidates' health insurance proposals separately at the end of the paper. With limited information available, we roughly estimate that certain tax elements of the two health plans would trim GDP modestly by less that half a percent of GDP.

Current tax environment

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) lowered marginal tax rates in the four highest tax brackets (from 39.6% to 35%; from 36% to 33%; from 31% to 28%, and from 28% to 25%). These rate reductions were to be phased in between 2001 and 2006. The 2001 Act also carved out a new 10% tax bracket from the lower end of the 15% bracket,

effective immediately, with increases in the range of that bracket to come later. (This led to the $600 "rebates" of 2001 to reflect the lower 10% tax rate, an effort to boost spending to jump-start the economy that year. It was not effective.)

The 2001 Act also phased out tax penalties against marriage by gradually raising the exemptions and deductions for married couples to twice the levels for single filers. It increased contribution limits for retirement savings plans, and increased the child care credit from $500 to $1,000, all in stages. It provided for gradual elimination of the income-related phase-outs (called PEPs and Pease) of the personal exemptions and itemized deductions for upper income taxpayers. It scaled back the tax rate on estates and gifts and raised the exempt amount in several steps, with the last step to be effective in 2009, and eliminated the estate portion of the tax in 2010.

The weak economic recovery prompted the Congress to pass the Jobs and Growth Tax Relief and Reconciliation Act of 2003 (JGTRRA). That Act temporarily brought forward many of the staged rate reductions, phase-outs, and exemption increases of the 2001 Act that were due to become effective in later years. The 2003 Act also lowered the maximum tax rate on long term capital gains from 20% to 15% through 2008. It reduced the top tax rates on qualified dividends (from firms subject to corporate income tax) to a maximum of 15% through 2008. Dividend and capital gains rates were cut to 10% for taxpayers in the two lowest brackets, and to zero in 2008.[1]

Subsequent legislation made the enhanced contribution limits to retirement saving plans permanent, and extended the various accelerated marginal rate reductions, capital gains and dividend rate caps, and marriage penalty relief in the 2003 Act through 2010. Also over the period, Congress has provided a temporary increase in the otherwise-unindexed exempt amount of the Alternative Minimum Tax (AMT), good for one or two years at a time, which has slowed that tax's growth. These annual "patches" to the AMT keep it from reaching further down into middle income territory. It currently affects about 3.5 million taxpayers. If the patch is not renewed for 2008, it will hit about 26.5 million taxpayers.

Two of the 2001/2003 tax changes are not yet fully effective. The last step in the elimination of the phase-outs of personal exemptions and itemized deductions is due in 2010. For estates, the last increase in the exempt amount (to $3.5 million) and the last reduction in the top estate tax rate (to 45%) are due in 2009, prior to the scheduled elimination of the tax in 2010.

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[1] Prior to the 2003 Act, the top capital gains rate was 18% for gains on assets held at least 5 years (instead of 20%), and 8% (instead of 10%) for the two lowest bracket taxpayers. That 5-year rate differential would presumably reappear if the rates were to go back up to 20% and 10%.

Pending expiration

Most of the tax reductions enacted in 2001 and 2003 will expire at the end of 2010 unless the Congress and the President renew them. If the tax reductions expire, the individual income tax's 10% tax bracket will become part of the 15% bracket. The 25% marginal rate will climb to 28%, the 28% rate to 31%, the 33% rate to 36%, and the 35% rate will jump to 39.6%. Much of the individual income tax's current-law marriage penalty relief will evaporate. The child credit will drop from $1,000 to $500. The individual income tax's maximum rate on capital gains will increase from 15% to 20%, and its top rate on dividends will soar from 15% to 39.6%. In addition, if the tax relief sunsets, the estate tax, which many people descriptively call the "death tax", will come roaring back in its pre-2001 form: it will tax estates that exceed $1 million dollars, and its top rate will hit 55% (60% in some cases when a surtax is included).

Our baseline for comparison

Some comparisons of the candidates' tax plans focus on the change in the tax liabilities of people of different incomes or family characteristics, or of businesses in different industries or circumstances, assuming no change in the level of incomes or economic output (static analysis). By contrast, we seek to estimate whether the candidates' tax plans will improve or worsen the economy, and increase or decrease after-tax incomes after all economic adjustments are factored in (dynamic analysis). But what economic situation and tax policy should we use as our base case?

Current tax law contains significant tax changes going forward. There is the relatively low tax burden on production that is affecting the economy in 2008 and which will continue over the 2009-2010 period as two remaining bits of the 2001/2003 tax cuts are phased in. Then there is the much higher tax burden that will be in place under current law in 2011 and beyond after the tax cuts expire.

Should we try to compare the candidates' tax plans to the lower current tax burden, or to the higher future burden under current law? Should we compare the economy under the candidates' tax plans to the economy we would expect to see with the current tax levels, or to the weaker economy that would exist under the higher taxes scheduled under current law?

We have chosen to take as our baseline the tax rates and rules of the 2009-2010 period, with slight modifications. The new Congress and the new President will not take office until 2009. Any changes they make in tax policy will be effective sometime that year or the next. The year will start under 2009 tax rules. That regime will include the last modification to the estate and gift tax before it is scheduled to expire in 2010. We will use that 2009 tax regime as our starting point, with one exception.

There is one further change scheduled for 2010 that is left over from the 2001 Tax Act. That is the elimination of the last remaining third of the PEPs and Pease restrictions on personal exemptions and itemized deductions for upper income taxpayers. For simplicity, we will include full elimination of PEPs and Pease in the starting point. We also assume in the baseline that the Congress will continue to renew the AMT "patch" each year.

All calculations will be done at 2007 income levels (latest available) with dollar-specific elements of the candidates' plans converted to 2007 dollars. We will attempt to estimate the increase or decrease in private sector output due to the tax changes, and will assume that the amount of government spending and activity is a given.

We are not interested in assuming the complete expiration of the 2001/2003 tax reductions for three reasons. First, neither candidate proposes allowing that to happen. Second, a tax plan that merely reduces a pending tax increase is not really a tax cut; taxes would still be going up from where they are now. Third, mitigating a pending tax-related deterioration in economic performance does not raise living standards from current levels, and it is current levels that people are most familiar with.

The economy adapts fairly quickly to the existing tax and regulatory climate (and to other world events). This year's economy incorporates the effect of this year's tax climate, plus any remaining adaptations to recent tax incentives. For example, some of the investment orders stimulated by the 2003 tax reforms probably resulted in deliveries and installation in the 2003-2008 period. Current labor force participation and production are influenced mainly by current rewards to producing output. Short-lived investment assets will have served their purpose before 2011. The economy of 2009 will be more heavily influenced by the current tax regime and whatever changes Congress makes in 2009 than by what is now scheduled under old law for 2011 and beyond.

This is not to say that there is no influence of expectations of the future on current production. An expectation of higher taxes will cause people to shift some income-generating activity forward. People may accelerate the sale of assets and the taking of capital gains. They may work overtime now and take vacations later. They may arrange to receive payments up front for goods and services, advance royalties and rents, etc. Some investment in long-lived assets, such as buildings, steel mills, dams and power plants, may be suspended or delayed until the uncertain tax climate clears (and may be canceled if the climate turns chilly).

How we analyze the proposals

Each of the provisions of the candidates' plans was examined to determine its impact on the marginal tax rates on labor and capital income. It is the marginal tax rates on incremental income

that affect the choices between additional labor and additional leisure, and between additional saving and investment versus additional consumption. The changes in these two tax "wedges" were then entered into a model of the economy to determine their effect on the labor supply, the capital stock, output, employment, wages, and income.[2]

A rise in the marginal tax rate on labor income reduces employment and GDP; a reduction in the marginal tax rate raises employment and output. A rise in the marginal tax rate on capital income reduces the capital stock, which in turn reduces productivity, wages, employment, and output; a reduction in the marginal tax on capital income raises the capital stock, wages, employment, and output.

Changes in the levels of output and income have a major effect on federal, state, and local government revenues. The dynamic reactions of labor and capital to a tax rate reduction can substantially raise income and the tax base, reducing the revenue cost of a tax cut. Tax increases can depress the tax base and lose a large part of the expected revenue gain from a tax increase. We have estimated the revenue feedback from the major elements of the candidates' proposals. The estimation of the revenue effect of a tax change on the assumption that the economy is not going to be affected (called static revenue estimation) is bound to be inaccurate. Unfortunately, it is the method commonly applied to revenue estimation in Washington and the states.

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[2] These marginal rate changes were found by using a tax calculator developed at the Heritage Foundation Macroeconomic Working Group by Gary Robbins. It gauges the impact of the tax changes on a large sample of tax returns.

Specifically, we looked at the changes to the marginal tax rates on labor income, weighted by the incomes of the earners. The income weights reflect the productivity of the workers; a worker earning $20,000 a year working 2,000 hours will add $10 to GDP by working an extra hour. A worker earning $200,000 a year would add $100 to the GDP by working an extra hour.

We also calculated the changes in the income-weighted marginal tax rates on dividends, capital gains, and non-corporate business income, as well as the corporate income tax rate, the estate and gift tax, and the depreciation schedules. These were used to determine the effect of the policies on the "service price" of capital. The service price is the rate of return that capital must earn to cover its economic obsolescence, pay taxes, and yield a normal after-tax return to the owners. A higher service price forces a reduction in the capital stock, eliminating capital that cannot earn enough to clear the hurdle. A lower service price encourages additional capital formation.

The changes in these two tax "wedges" were then entered into an economic model using a Cobb-Douglas production function and a labor supply curve. The model determined the increase or decrease in the supply and employment of labor and the size of the desired capital stock, and the resulting changes in GDP and incomes. The effect of the income changes was allowed to feed back into the tax rates, which resulted in further income adjustments, until a new equilibrium was reached. The production function is described in greater detail in Stephen J. Entin, "Tax Incidence, Tax Burden, and Tax Shifting: Who Really Pays the Tax?" *IRET Policy Bulletin*, No. 88, September 10, 2004, Appendix A, available at http://iret.org/pub/BLTN-88.PDF.

Determining what is in the candidates' plans

Both candidates have presented descriptions of their tax proposals on their web sites and in interviews and speeches. In many instances, however, details are lacking. Some of the proposals appear to be flatly unworkable as stated. Others are described in part but not in whole. This lack of precision is not uncommon for election platform proposals, but the extent of the vagueness this year is greater than average.

The best effort to date to flesh out the plans has been made in a paper by the Tax Policy Center, a joint venture of the Urban Institute and the Brookings Institution.[3] The Center's authors spent considerable time clarifying proposals with the staffs of the candidates. They do not claim that their interpretations are exactly what the candidates would submit in fully developed legislation. However, they have tried to ascribe reasonable details that would make the proposals workable, drawing on solutions used in similar tax code features in the past. Where limitations on eligibility and the relation of tax credits to income were not clearly specified, they tried to pick rules and limits that resulted in revenue or cost estimates that matched those reported by the candidates' documents.

For our analysis, we will use the assumptions concerning the design of the tax proposals in the Tax Policy Center paper. While agreeing on the form of the tax changes, we will have very different views concerning the merits of the proposals, or their effects on the economy and on taxpayer behavior.

Senator McCain's Tax Plan[4]

Extending expiring tax cuts. Senator McCain would continue the 2010 level of tax relief from the 2001/2003 Tax Acts on a permanent basis, with one exception (see the estate and gift tax, below). The permanent extensions would include keeping the current marginal tax rates and marriage penalty relief, the child credit increase, and the 15% tax rate on dividends and capital gains. To the extent that these tax changes are extended, they would leave average and marginal tax rates at current levels, and have a neutral effect on economic output and income.

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[3] Len Burman, Surachai Khitatrakun, Greg Leiserson, Jeff Rohaly, Eric Toder, and Bob Williams, "An Updated Analysis of the 2008 Presidential Candidates' Tax Plans: Revised August 15, 2008 ," Tax Policy Center, Urban Institute and Brookings Institution, Updated September 12, 2008, accessed at http://www.taxpolicycenter.org/ UploadedPDF/411749_updated_candidates.pdf.

[4] For a concise description of Senator McCain's proposals, see Douglas Holtz-Eakin, "The McCain Budget Plan," Washington Post, July 14, 2008, accessed at http://www.washingtonpost.com/wp-dyn/ content/ article/ 2008/07/13/AR2008071301643_pf.html. Holtz-Eakin is a former director of the Congressional Budget Office and Senator McCain's chief economic adviser.

Estate and gift tax. Senator McCain would not eliminate the "death tax", but he would reduce its top rate to 15% and increase the amount a person may leave to heirs without triggering the tax to $5 million.[5] The reduction in the death tax would reduce the service price of capital and increase capital formation, employment, wages, and income. The tax is one of the most inefficient taxes that we have, in that it is imposed at a very high rate on a narrow base, and directly affects capital accumulation. It does more economic damage per dollar of revenue raised than virtually any other U.S. tax.

AMT "patch". Senator McCain would extend the AMT "patch", and index it for inflation. Starting in five years, Senator McCain would increase the AMT exempt amount in real terms (at five percent above the inflation rate until the exempt amount reaches about twice current levels) to protect more of the middle class.

Higher exemption for dependents. Senator McCain would double the tax exemption for dependents. The increase, to $7,000 per dependent, would be phased in between now and 2016, except that it would take effect immediately for families with incomes below $50,000. (Because the current-law exemption rises with inflation, the real-dollar increase in 2016 and thereafter would be about two-thirds of the nominal jump.[6]) An increase in the exemption would lower marginal tax rates only for households near the bottom of a tax bracket, whose taxable income might drop into the next lower bracket.

Corporate tax reduction. The United States now has one of the highest corporate tax rates in the world, which hurts the competitiveness of U.S. businesses. Since 1990, many countries have reduced their corporate income tax rates, but the United States has not. (We actually raised the rate by a percentage point in 1993.) Senator McCain proposes to lower the federal corporate income tax rate from 35% to 25%. At the same time, Senator McCain would end the manufacturing credit (which currently reduces the effective marginal corporate rate to 31.85% on profits from qualifying domestic production) and would eliminate several business tax provisions that he considers to be loopholes, which would offset about $30 billion yearly of the static budget cost of the corporate rate reduction.[7] The combined offsets would be roughly equivalent to trimming the corporate rate reduction to 28.6%, which is how we have modeled the provision. The corporate tax rate is one component of the service price of capital. Reducing the rate provides a strong incentive to increase the capital stock, which raises productivity, wages, and GDP.

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[5] Bequests to a spouse are not subject to the "death tax", and that treatment would continue.

[6] See Tax Policy Center, *op. cit.*

[7] The estimate of the savings is from the Tax Policy Center, *op. cit.*, p. 12.

Expensing. Senator McCain would allow businesses to expense (immediately write off) investment outlays on 3- and 5-year equipment (instead of depreciating them over time). The provision would be effective for 5 years, with a review and possible renewal after that. Expensing also reduces the service price of capital, with minimal reduction in federal tax revenue over time, since deductions by businesses for investment outlays that are taken earlier are not available later. The provision would be more effective if extended to all equipment and made permanent.

R&D credit. Senator McCain would make the temporary R&D credit permanent, and would convert it to a ten percent tax credit for wages paid in R&D.

Ultimate reform goals. Senator McCain has expressed interest in creating a simplified income tax that people would have the option of choosing instead of the regular income tax. This simplified, alternative individual income tax would have two rates and large standard and personal deductions, set to achieve approximate revenue neutrality with the current system. This alternative income tax is not currently one of Senator McCain's tax proposals, but an idea he thinks should be studied.

The Obama Tax Plan

Extending some expiring income tax cuts. Senator Obama would continue the marriage penalty offsets and child credit expansions of the 2001 Act. He would also retain the 10% tax bracket and the 25% and 28% tax rates (rather than allowing them to rise to 25% and 31%.)

Income tax cuts he would let expire. Senator Obama would allow the 33% rate to return to 36%, and the 35% rate to rise to 39.6%. He would raise the 15% tax rate on dividends and capital gains to 20% for individuals with adjusted gross income (AGI) over $200,000 and joint filers with AGI over $250,000. Likewise, he would reinstate the phase-outs of the personal exemptions and itemized deductions for individuals with AGI over $200,000 and joint filers with AGI over $250,000.

Estate and gift tax. Senator Obama would freeze the death tax structure at 2009 levels, with a $3.5 million exempt amount and a 45% top tax rate.

AMT patch. Senator Obama would restore the AMT "patch", and index it for inflation.

R&D credit. Senator Obama would make the R&D credit permanent.

Making work pay credit. The "making work pay credit" would be a refundable credit equal to 6.2 percent of the first $8,100 in wages. The 6.2% rate is identical to the employee's portion of the part of the payroll tax that covers the Social Security retirement and disability programs, but not

Medicare. The maximum credit would be just over $500 for a single worker. A two-worker couple could receive up to twice that amount, based separately on each spouse's wages. (If one spouse earned less than $8,100, his or her credit would be less than the maximum.)

In the phase-in range, the credit would reduce the marginal tax rate on wages by 6.2 percentage points. The Tax Policy Center guesses that this credit would be phased out for single filers beginning at $75,000 of AGI, and at $150,000 for joint filers, at a rate of 5% of the excess of AGI over the thresholds. In the phase-out range, a recipient would experience an additional 5 percentage points on his or her marginal federal income tax rate on all types of income, since any additional income would reduce the allowable credit.[8]

As with other credits, it would reduce average tax rates for people below the point of complete phase-out, but would raise marginal tax rates in the aggregate. The credit would encourage work at the margin for the relatively few people who earn less than $8,100, but would discourage work, saving, and investment for filers with income in the phase-out range. The income weighted effect of the credit is an increase in the marginal tax rate on labor, which would discourage employment, and an increase in the marginal tax rate on other income, which would discourage saving and capital formation.

The Tax Policy Center speculates that the effect of the credit on hours worked might be positive, because some studies have shown that credits have more effect on the decision to enter the labor force or to drop out (the labor force participation rate) than they do on the number of hours worked by people already in the work force. We demur. Even if that were true, the credit would reduce GDP. If a low income worker works an extra few hours, he or she will add relatively little to GDP. If a worker is in the phase-out range, his or her hourly contribution to GDP is far larger than (perhaps ten to twenty times) that of the low-wage entrant. If the higher income worker works a few hours less, the negative effect on national output would be far greater than the added output of the new entrant. The effect of the credit on GDP would be negative.

The making work pay credit is described as a device to offset the payroll tax for low income taxpayers. That is also the purpose of the earned income tax credit, which is already in the law. One must ask why the Senator did not simply further increase the EITC instead of imposing this added layer of complexity.

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[8] It is not clear whether the two credits earned by two-worker couples would be phased out concurrently at 10% of the excess of their income over the threshold, or consecutively at 5% over a wider income range. We have chosen to model the former. It makes little difference to the weighted average marginal tax rate over all taxpayers, although it would make a difference at the margin for some of the households.

Expand the EITC. The EITC is an existing tax credit that effectively subsidizes low income wages. It is phased in over the first few thousand dollars of wages at rates that increase for households with zero, one, or two or more children. It remains at its maximum over a range of income, and is then phased out as household income (AGI) exceeds varying thresholds. The phase-in and phase-out can be quite high and can have a significant effect on marginal tax rates.[9]

Over the low incomes of the phase-in range, marginal tax rates on labor are reduced, encouraging work. At the higher incomes of the phase-out range, marginal tax rates on all types of income are increased, because income from all sources can push AGI above the threshold and reduce the credit. For reasons similar to those mentioned in regard to the making work pay credit, we estimate that the weighted average increases in marginal tax rates under the EITC have negative impacts on hours worked, saving, and investment.

The Obama plan would expand the EITC for workers with no children, who currently receive a much lower EITC than households with children, by increasing the phase-in range and raising the phase-out threshold. The plan would also expand the EITC for workers with three or more children by creating a new higher 45 percent phase-in rate for these larger families. Married couples with children would have a phase-out threshold $5,000 higher than single parent households, up from current law's $2,000 in 2007 (and $3,000 in 2008).

The expanded phase-in range for workers without children and the higher phase-in rate for workers with three or more children would reduce marginal tax rates on labor in the phase-in ranges. However, the bigger credits would require a wider range of income over which to phase them out for higher income households, increasing marginal tax rates on all income in the expanded range. We estimate that these changes would reduce work, saving, and investment, and retard the growth of GDP.

Seniors' exemption. Senator Obama proposes to exempt from income tax all seniors with less than $50,000 in income. We do not have age-related data to model this proposal. It would have some positive effect on work effort in the affected group. A fair portion of the group is already

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[9] In 2007, for households with no children, the credit was phased in at 7.65 percent of the first $5,590 of income, and was phased out at 7.65 percent as AGI exceeded $7,000. (The 7.65 percent rate matches the employee's half of the combined Social Security and Medicare tax rate.) For single parent households with one child, the phase-in rate was 34 percent on the first $8,390 dollars of income, and for households with two or more children, 40 percent on the first $11,790. In both cases, the phase-out began at $15,390, at a rate of 15.98 percent for one-child households and 21.06 percent for households with two or more children. The phase-out thresholds are $2,000 higher for households with married couples with children (rising to $3,000 higher in 2008).

exempt from tax, in that seniors have an extra amount of standard deduction and are not taxed on social security benefits unless their income exceeds $25,000 (single filers) or $32,000 (joint filers).[10]

<u>Other refundable credits.</u> Senator Obama would make the child and dependent care tax credit fully refundable, increase the rate from 35 percent to 50 percent, begin to phase down the credit at $30,000 of income instead of the current $15,000 threshold, and reduce the credit rate by 2 percent of the excess income rather than 1 percent as income exceeds the threshold. He would alter the current low income saver's credit by making it refundable and matching up to 50 percent of the first $1,000 of saving. Senator Obama would create a refundable "universal mortgage credit" of 10% of mortgage interest for taxpayers who do not itemize, with a maximum credit of $800. He would increase the Hope education credit to match 100 percent of the first $4,000 of eligible outlays (up from a non-refundable maximum of $1,800 per student this year), make it fully refundable, and relabel it as the American Opportunity Tax Credit. We lacked the necessary detail to model the marginal tax rate changes associated with these credits, but their coverage would be limited in any given year and the aggregate effects would be small.

The Congressional Budget Office and the Office of Management and Budget do not count the refundable portion of a tax credit as a tax reduction. They score it, quite properly, as federal spending on a par with other transfer payments or government purchases of goods and services. We follow this practice.

Nonetheless, the shift from a non-refundable credit to a refundable credit can have an affect on marginal tax rates. When a credit is non-refundable, and larger than a filer's tax liability, his tax payment is zero and he must leave some of the credit "on the table". A rise in income, or an increase in tax rates legislated by Congress, will have no effect on the filer unless his tax liability increases to exceed the maximum credit amount. Until then, his tax is still zero, and he has a zero marginal tax rate. He is indifferent to the tax increase.

It is another matter when the credit is refundable. A rise in the credit recipient's income or a legislated tax rate will result in his getting a smaller net credit payment from the Treasury. Therefore, the individual faces the disincentive of whatever marginal tax rate he would face on his income just as if the credit did not exist, and he would not be indifferent to Congressional action that raised tax rates. The marginal disincentive to work is an economic negative, albeit a small one for low-income, low-tax-bracket filers. Even so, the awareness of the tax is good from a public policy perspective, because it is important for every taxpayer/voter to realize that government is not a free good.

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[10] That is "modified adjusted gross income", defined as ordinary income, plus tax-exempt bond interest, plus one half of social security benefits.

We lack the detailed information needed to model the economic impact of these new refundable credits. However, the increased awareness of the marginal tax rate at the bottom of the income ladder, and the loss of the credits at higher incomes, must raise marginal tax rates and reduce incentives to earn. As a partial offset, the additional education that may occur under the Hope credit reforms should eventually increase labor productivity. We say "may occur" because additional federal aid to education in the past has been associated with steep increases in tuition costs.

Static Versus Dynamic Analysis

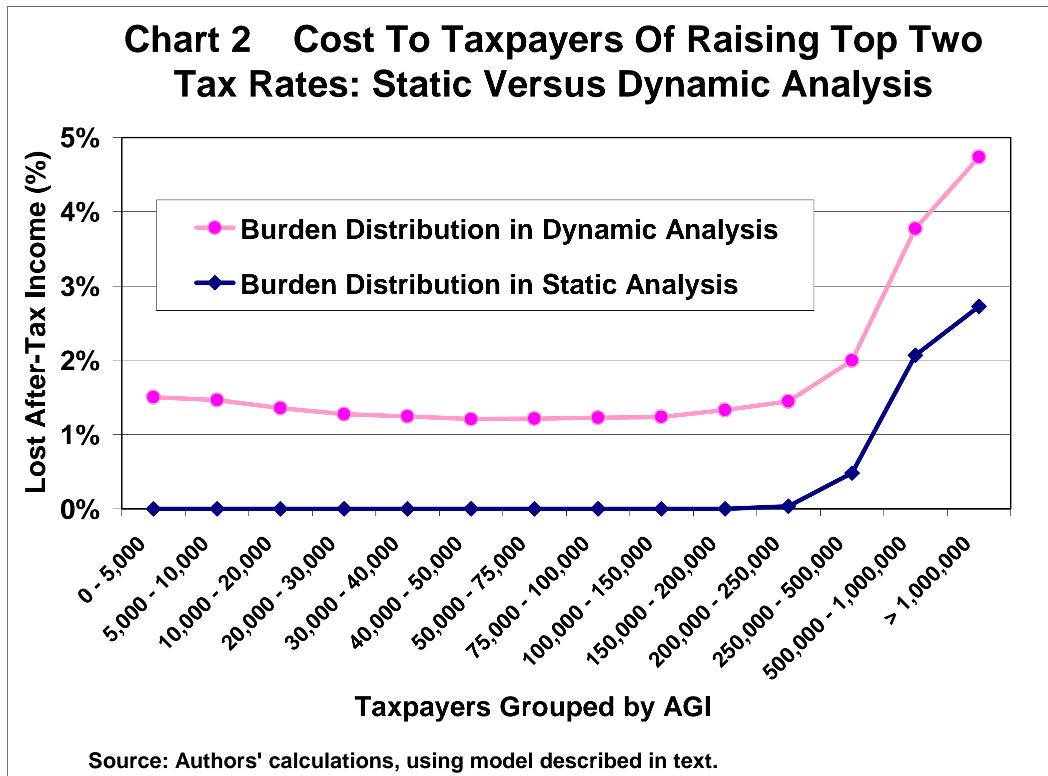
The impacts of tax changes are often evaluated under the convenient but unrealistic assumption that taxes never affect macroeconomic aggregates: how much people work, save, and invest in total; how productive the economy is; how much output and real income it generates; and how fast it grows. In a static analysis, people make the same aggregate work, saving, and production decisions whether they face marginal tax rates of 0%, 100%, or anywhere in between.

In the real world, however, people care about after-tax rewards and respond vigorously when the government alters marginal tax rates. With that in mind, this study provides a dynamic analysis of Senator McCain's and Senator Obama's tax proposals.

In a dynamic analysis, tax changes do not have their full effects immediately because it takes people time to respond to the new incentives. However, people react quickly and make most of their adjustments within five years. With the dynamic estimates presented here, it is assumed that the economy has reached a new equilibrium after people have had several years to alter their behavior in response to the tax changes. In that sense, this study's analysis is long run, but most of the long run will have arrived within five years.

For an illustration of the dramatic differences between static and dynamic estimates, consider the impact of just one of Senator Obama's highest profile recommendations: to end the rate reductions in the top two individual income tax brackets, letting them rise from the current 33% and 35% rates to 36% and 39.6%. It is claimed that these rate increases would produce a flood of new tax revenue that would be paid for exclusively by the wealthy.

A static analysis using the tax calculator that naively assumes that higher taxes have no impact on macroeconomic aggregates might give some support to that view. The tax hikes appear to fall on taxpayers with incomes above $200,000 (see Chart 2), and the hikes seem to increase income tax collections by 3%, or nearly $35 billion. (That is a substantial increase, but still very small compared to the cost of many of the new government spending programs being proposed. Taxes would have to rise steeply for the middle class as well as the wealthy to pay for those spending programs.)



The dynamic estimates present a very different picture because they factor in the negative effects of higher marginal tax rates on people's work and saving decisions. People in the top two tax brackets would respond to the higher marginal rates by working, saving, and investing less. Wages at all income levels would fall as labor productivity dropped due to the diminished supply of capital. In the new equilibrium, the capital stock would be reduced by 2.5%, the wage rate would be 0.7% lower, and the total labor supply would drop 0.4%. Due to the reduced supplies of labor and capital, output would be 1.2% lower than otherwise. Because of these negative dynamic feedback effects, people at all income levels lose income (see Chart 2).

People tend to measure the cost of a tax increase as the added amount they must pay. In reality, the full cost to the public of the tax rate increase would have to include the dead-weight loss that results from the reduction in economic output. Moreover, because a smaller economy hurts tax collections, the dynamic analysis reveals that raising the two top tax rates would increase income tax revenues by less than a tenth of the static estimate. Reductions in other tax collections would turn the policy change into a revenue loser.

Dynamic Analysis of the Two Plans

McCain. In addition to extending most of the 2001/2003 tax relief, and in particular not raising the individual income tax's two top rates and the 15% top rate on capital gains and dividends, the McCain plan has a number of pro-growth features. Three included in the analysis here are a lower corporate income tax rate, "death tax" relief, and expensing (i.e., immediate deductibility) of investments in 3- and 5-year equipment.[11] The estimation also includes the larger personal exemption for dependents.

Obama. By contrast, the Obama proposal raises tax rates in the two top brackets and on capital gains and dividends for upper income taxpayers, increases business taxes, raises marginal tax rates by restoring the PEPs and Pease phase-outs of personal exemptions and itemized deductions, and increases the phase-out impacts of numerous credits. We were able to model the rate changes, the making work pay credit, most of the EITC changes (excepting the increase for single filers paying child support), PEPs and Pease, and the business tax increases.

Chart 1 showed some of the dynamic results of these two very different tax plans. The baseline is current tax treatment (that is, including most of the tax relief provided in 2001 and 2003). The dynamic model estimates that the McCain tax plan would significantly boost the private sector of the U.S. economy (about three-quarters of the total economy) above the level it would otherwise achieve. America's private sector labor supply is estimated to be 0.5% larger, its private capital stock 7.3% greater, and its production of private sector goods and services 2.7% higher. Hourly wages (not shown) would be 2.2% higher. To be clear, these are not one-time gains; they are level increases. It is estimated here that the private sector of the U.S. economy would generate 2.7% more income and output each year than otherwise, which works out to about $1,350 for a $50,000 household. That would be a very welcome addition to most people's pocketbooks.

The dynamic model estimates that the Obama tax plan would significantly curb the private sector of the U.S. economy relative to the level it would otherwise achieve. America's private sector labor supply is estimated to be 1% smaller, its private capital stock 8.5% lower, and its production of private sector goods and services 3.5% lower. Hourly wages would be 2.6% lower. The private sector of the U.S. economy would generate 3.5% less income and output each year than otherwise, which works out to a loss of about $1,750 for a $50,000 household. The income losses would be less for lower income households, perhaps $1,050 for a $30,000 household. To be sure, many low income families would benefit from new or increased refundable tax credits under the Obama plan. For example, the making work pay credit might come to about $500 or $1,000 for a one-earner or

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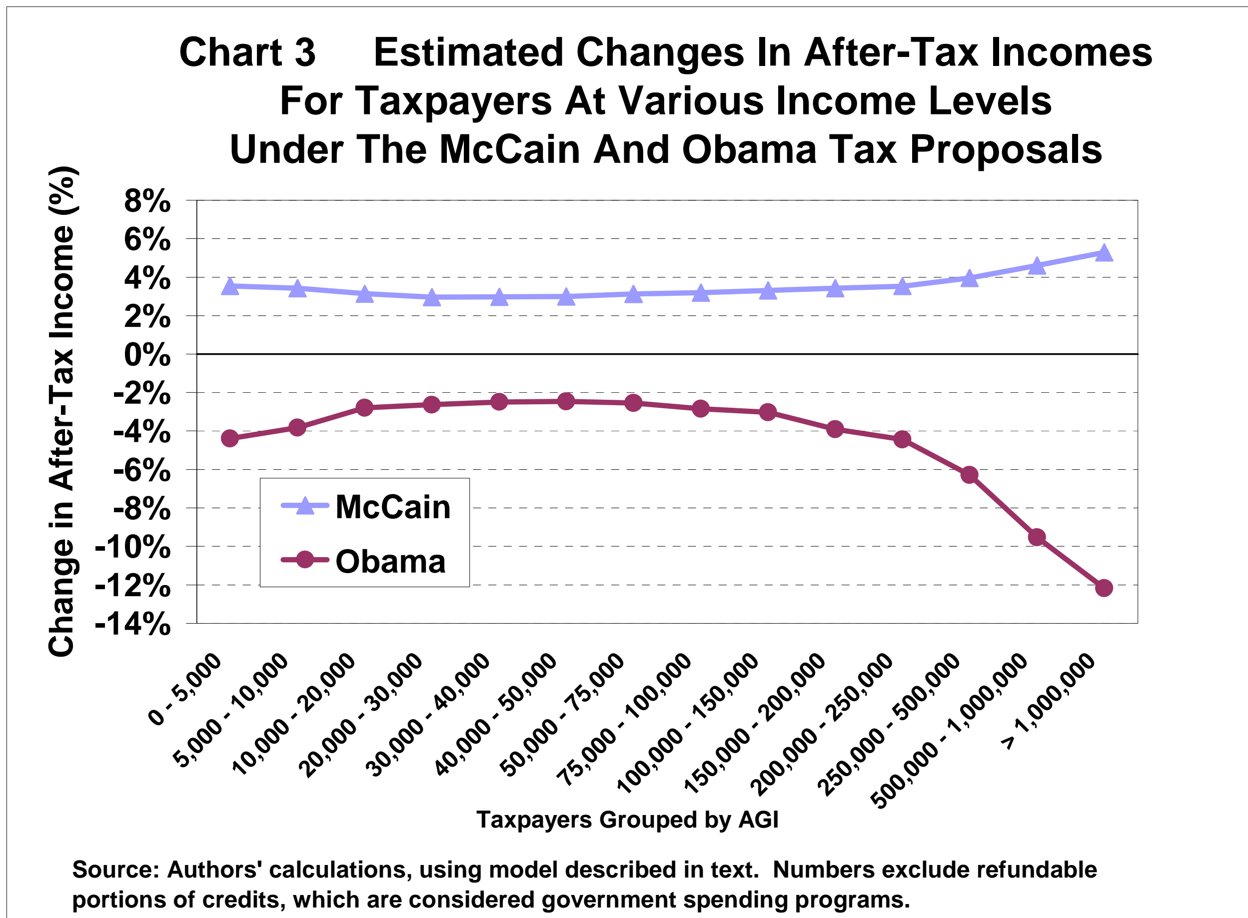
[11] Because of Senator McCain's proposed "loophole closers", it is assumed here that the cut in the corporate tax rate would effectively be to 28.6% rather than 25%.



two-earner couple. The increase in the EITC for a family with three or more children might be $590. But these low-income-earner tax reductions and refunds would have to make up for a significant loss in pre-tax income before the households would come out ahead.

Chart 3 shows how the dynamic gains and losses in after-tax incomes under the two plans would be distributed among taxpayers in various income groups. The McCain plan's gains are relatively even, although they are somewhat higher as a percent of income in low and high income ranges. The Obama results are similarly spread over all income groups, except they are losses. Taxpayers in all income classes would benefit from McCain, and lose (pre-refundable credits) under Obama. The relatively large gains and losses at low income levels reflect the heavy reliance on wages in those households.

Effect on government revenues

As mentioned, both candidates would continue large portions of the 2001/2003 tax reductions. We consider the 2001/2003 tax relief to be part of the tax baseline, and not new reductions.

Therefore, we focus here on how much the new elements of the candidates' tax plans would alter the government's tax revenues.

If the world were static, Senator McCain's new tax proposals would cost the government considerable money. However, taxes depend on the size of the economy, and the McCain plan would have positive growth effects. On a static basis, corporate income tax receipts and estate tax receipts would fall by $89 billion dollars (2007 levels) and there would be a revenue cost from the increase in the dependent exemption. However, the economic growth resulting from the associated capital formation would raise incomes, and boost associated revenues by about $105 billion. The federal government's individual income tax, payroll tax, excise tax, and tariff revenues would increase. About 30 percent of the lost corporate and estate tax revenue would also be recovered due to the expansion of the capital stock. We estimate that combined revenue effect of the static loss and the dynamic gain would be a net gain of $16 billion. State and local tax revenues would also rise as private sector income expanded. At worst, federal taxes would decline very slightly – and in return the private sector of the U.S. economy would be 2.7% larger. That is a very good bargain.

Senator Obama's tax plan would have negative growth effects. Corporate income tax receipts would rise by about $76 billion before dynamic offsets, but only by about $37 billion after economic adjustments. Upper-bracket income tax payments would rise on a static basis, but total income tax, payroll tax, excises, tariffs, and estate taxes would fall, after dynamic adjustments, by $90 billion dollars. There would be a net dynamic revenue loss of about $53 billion. State and local government tax revenues would fall in step with private sector income. The private sector of the U.S. economy would be 3.5% smaller. That is a very bad bargain.

The Candidates' Health Plans

Both candidates offer major changes to the health insurance system. Each plan involves large increases in federal subsidies for the purchase of health insurance, with some tax offsets. Both have large remaining balances whose funding source is unspecified. The plans would require either cuts in other federal spending or the raising of other taxes to make ends meet.

Many of the features of the health plans require detailed information that we lack on health care use by household, who would be eligible, and who would receive subsidies. We have therefore looked only at those portions of the plans that have been specified clearly enough to reveal their effects on marginal tax rates. We have then estimated the effect of these elements on economic activity. Since much of each health care plan is beyond our modeling ability, we present this analysis separately from our analysis of the candidates' major tax proposals.

Our estimates of the tax implications of the health plans relies on a study by the Lewin Group, entitled "McCain and Obama Health Care Policies: Cost of Coverage Compared".[12]

<u>The McCain health proposal.</u> The current tax code allows employer-paid health insurance to be given to employees as a non-taxable fringe benefit. The cost of employer-provided health insurance is deductible from the employer's income and not included in the employee's income either for income or payroll tax calculations. Similar treatment applies to the self-employed. The tax subsidy is of no use to people who are not self-employed and do not have health insurance through their employer.

Senator McCain would make the value of employer-paid insurance taxable under the income tax (but not the payroll tax). In exchange, he would create a refundable health care tax credit of $2,500 for a single worker and $5,000 for a married couple, available to all regardless of employment status. The credit would be larger than the value of the current health insurance exclusion for all but the highest bracket taxpayers with the most gold-plated policies.[13] The credit would follow the worker if he or she changed jobs, and could be applied to insurance purchased on one's own, through the employer, or through other organizations. It could be used to pay the premium on an insurance policy, or for copayments, deductibles, and out-of-pocket medical expenses. Any unused amount could go into an expanded form of health savings account, and grow untaxed. It could be used for future medical bills.

The inclusion of the value of the employer-provided health insurance in AGI would raise marginal tax rates for some workers. Taxable income would rise on average by a bit over 7.5%, and some workers' taxable incomes would be pushed into the next higher tax bracket. The rise in marginal tax rates would depress economic activity in the private sector by about 0.4 percent, offsetting a portion of the added growth otherwise provided by the McCain tax plan.

This is a typical example of the effect of swapping an income exclusion for a tax credit. It would lower the tax liabilities of most taxpayers, and reduce their average tax rates. But it would either leave marginal tax rates unchanged or raise them for some individuals, and so the effective marginal tax rate would rise in the aggregate. That would slow the economy.

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[12] The Lewin Group, "McCain And Obama Health Care Policies: Cost And Coverage Compared," October 15, 2008, accessed at http://www.lewin.com/content/Files/The_Lewin_Group_McCain-Obama_Health_Reform_Analysis_Revised 10-15-08.pdf.

[13] If a worker in the 20% tax bracket (15% federal and 5% state) has a typical family policy from his employer valued at $12,000 a year, the current exclusion is worth $2,400, which is $2,600 less than the promised $5,000 tax credit. If the taxpayer is in the 40% bracket (35% federal, 5% state) the exclusion on the same policy would be worth $4,800, $200 less than the $5,000 credit. If an upper income executive were taking a $20,000 policy, the current tax subsidy would be worth $8,000; he would lose $3,000 under the $5,000 credit.

In the McCain case, there would be some offset to this adverse economic effect because there would be some efficiency gains in the consumption and production of health care. Under the McCain plan, health consumers would see more clearly the cost of their incremental spending on health care. If they are careful about their consumption, and their choice of health policies, they can keep the difference in their health savings accounts. This should reduce the over-insurance and over-consumption of health care induced by the current open-ended tax subsidy and heavy reliance on third-party payers.

The Obama health plan. Senator Obama's health plan would significantly expand federal outlays for Medicaid, SCHIP, and other low and middle income health benefits. Most of these items have limited impact on marginal tax rates, except insofar as eligibility for the federal subsidy is lost when income rises beyond certain levels. As with any welfare benefit or tax credit, the loss or phase-out of benefits with higher income raises marginal tax rates. We do not have sufficient data to measure the marginal rate effect of many of the Obama subsidies, but it is non-zero and negative for output and income.

There are two features of the Obama health plan that have measurable marginal tax rate consequences. They involve the pay-or-play requirement. Medium and large businesses that do not currently offer a work-related health plan would be required to do so or to pay a payroll tax penalty of about 6% of payroll. The Lewin Group has estimated that the penalty payroll tax would bring in $22 billion in 2010.[14] Lewin also estimates that some businesses would find it cheaper to offer health coverage than to pay the tax, covering $4.7 million workers and dependents.[15] We estimate that the added cost would be another $18 billion a year for insurance. The combined forced payments would be about $40 billion. We modeled this as if it were an increase in the payroll tax rate. That rate hike would reduce private sector economic output by about 0.2 percent of private sector GDP, a bit less than the reduction due to the marginal tax rate effect of the McCain plan.

Unlike the McCain case, however, the Obama plan would provide no efficiency offsets to the adverse economic effects. Under Obama, more health consumers would have third party payment of the bulk of their health expenditures, at the margin. They would see less clearly than now the cost of their incremental spending on health care, and would have less reason to shop, plan, and economize. There would therefore be no efficiency gains in the consumption and production of health care to mitigate the economic damage of the higher marginal tax rates.

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[14] Lewin study, *op. cit.*, Figure 14, p. 24.

[15] Lewin study, *op. cit.*, p. 6.

There are many other features of the health plans that we were unable to analyze. The McCain plan appears to offer more choices to health care consumers, and to make more use of market forces to improve quality, competition, and cost containment without arbitrarily squeezing suppliers than does the Obama plan. We tend to favor the more market-based solution.

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Michael Schuyler
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Note: Nothing here is to be construed as necessarily reflecting the views of IRET or as an attempt to aid or hinder the passage of any bill before the Congress.