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Taxes and Deficits:

A 2008 Perspective

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Abstract:
In the 2008 Presidential campaign, candidates' proposals regarding tax rates and tax credits have been analyzed by relying on revenue and distribution tables from the Tax Policy Center (TPC). Those estimates erroneously assume zero behavioral response to changes in the corporate and dividend tax rates, and negligible taxpayer response to increased individual tax rates on high incomes and capital gains. Minimizing estimated behavioral response to changing tax incentives results in *exaggerated* estimates of potential revenue gains from Obama's increased tax rates and exaggerated revenue losses from McCain's reduced corporate and estate tax rates. Obama proposes to add half a dozen refundable tax credits and a special exemption for seniors with an estimated revenue loss of *$1.32 trillion* over 10 years. To pay for it, the Obama plan is precariously dependent on $924 billion of *unverifiable* tax receipts from "closing corporate loopholes and tax shelters"—an implausible 25% increase in corporate tax receipts. Without that, revenues from higher tax rates on high incomes, dividends, capital gains and estates fall $369 billion short of offsetting the new tax credits according to the TPC and *$902 billion* short according to this paper. Tax Policy Center

estimates of the distributional impact of the candidates' tax plans are also problematic. The distribution tables assume that the corporate tax is borne entirely by capital and incorrectly infer ownership of capital from taxable investment returns.

By 2008, key political leaders seemed to have discarded any notion that government spending should be limited in any way. Despite facing a 2009 budget deficit likely to exceed $1 trillion (possibly by a large amount), Congress and the Bush administration nonetheless rushed to spend or promise tens of billions more for a second round of so-called "stimulus" checks, plus hundreds of billions more for partial nationalization of banks, for purchases of mortgage-backed securities, for bailouts of Bear Stearns, Fannie Mae and Freddie Mac, for subsidized loans to the auto industry, and for additional subsidies to states and to the housing, ethanol and windmill lobbies. Every actual, potential or imagined problem is now routinely labeled a "crisis," and every crisis supposedly demands massive "resources" that the U.S. Treasury clearly does not have.

Meanwhile, there has been an escalating trend toward taking more and more people off the income tax rolls while using the tax system to hand out cash to various constituencies. Already, "the bottom 60 percent of households pay less than 1 percent of total income taxes," according to Bordoff, Furman and Summers. Nearly 13% did not file tax returns in 2006, according to the Joint Committee on Taxation, while federal income tax liability for the bottom 43% was *below* zero (*minus* $9.7 billion, reflecting refundable tax credits) and 3.3% with incomes above $200,000 paid 58.1% of all individual income tax. The Obama tax plan would escalate this trend, promising that one of several proposed new tax credits would "completely eliminate federal taxes" for another 10 million households, and that "27 million seniors will not need to file an income tax return at all." This *narrowing of the tax base* makes federal tax receipts precariously dependent on the fortunes of a few, including the ups and downs of the stock market (which suggests fiscal 2009 tax receipts will come in *far* below the mid-2008

estimates). It also makes federal spending appear free to millions of voters, which makes it even more tempting for politicians to offer additional subsidies to politically influential voting blocs.

Politicians appear particularly tempted to blur the distinction between taxing and spending by proposing more and more *refundable tax credits* deceptively labeled as "stimulus checks" or "energy rebates" or "middle-class tax relief." Because such spending schemes are administered through the tax side of the budget, they involve giving away borrowed money without any of the standards we might expect if they were more candidly described as, say, poorly-targeted welfare checks (Ferrara).

If anyone even bothers to ask how the federal government can possibly pay for all the costly new promises (in addition to such old ones as Social Security and Medicare), some suggest there would be ample revenue available if only we would raise marginal tax rates on the incomes of the top 1-2% and on their taxable capital gains, dividends and estates. This is a dangerous delusion.

This paper is primarily devoted to a critique of prevailing methods of analyzing the effect of alternative tax policies on tax receipts and on income distribution. The Tax Policy Center's estimates of potential revenues available from Obama's proposed higher tax rates on upper incomes, capital gains and dividends already fall far short of the sums required to meet his promised new outlays and tax expenditures (refundable tax credits, tax exemption for seniors with incomes below $50,000, more tax credits for health insurance). Yet the gap would actually be much wider because the TPC estimates exaggerate future tax receipts by failing to take into account well-documented behavioral responses to higher tax rates. Minimizing or ignoring behavioral responses also distorts related "distribution tables"—simplified efforts to estimate the distributional consequences of the Obama and McCain tax proposals (Bradford, Diamond).

The following section begins with a survey of the literature on the *elasticity* of taxable income (how the amount of reported income varies with changes in marginal tax rates) and *income switching* (how the forms on which income is reported vary with changes in relative tax rates).

Following that introduction, the Urban-Brookings Tax Policy Center's August 15, 2008 analysis of the presidential candidates' tax plans is examined to illustrate the importance of these issues in the context of the Center's influential revenue and distribution estimates. The press (and factcheck.org) often treats TPC estimates as if they were unquestionable facts rather than *estimates*. Moreover, they are estimates based on the questionable assumption that high-income taxpayers make little or no effort to avoid higher tax rates.

An August 31, 2008 *Washington Post* editorial, for example, wrote: "The facts? The nonpartisan Tax Policy Center [TPC] found that the Obama plan would give households in the bottom fifth of the income distribution an average tax cut of 5.5 percent of income ($567) while . . .[under] Mr. McCain's tax plan the wealthiest taxpayers would make out terrifically. . . . Mr. McCain's approach is far more costly."

Regardless of whether TPC estimates are "nonpartisan" (which is a legalistic distinction based on IRS rules, not a description of impartiality), they are nonetheless just estimates, not facts. When voters and legislators are asked to make decisions on the basis of such estimates they must take special care to understand serious imperfections in the process by which TPC revenue and distribution tables are constructed.

Conflicting Uses of Income Tax Data

Individual income tax data have long been used as a source of information about several very different questions. Using tax return data to estimate the *distribution of income* has become very popular with journalists and politicians since 1992, but it is hardly a new idea. In fact, it is the oldest use (or misuse) of such data going back to Lorenz (who compared Prussian incomes in 1892 and 1901) and Kuznets's 1953 study of upper U.S. incomes. Income tax data were later used, notably by Pechman and Okner (1974) and the Congressional Budget Office (annually since 1977), to approximate the *incidence* or relative burden of alternative tax policies on high, medium and low-income taxpayers. And income tax data have long been used by federal and private agencies to project future *revenues* from proposed changes in tax rates and regulations.

The fourth and *newest* use of income tax data has been to estimate the behavioral response of taxpayers to changes in marginal tax rates (Feldstein 2008, Giertz 2004) and to changes in relative tax rates (Gordon and Slemrod).

This paper argues that the accuracy of the first three uses of individual income tax data depends critically on the significance of the fourth. If behavioral responses are significant, then income tax data will provide misleading information about the *distribution of income* and about the *distribution of tax burdens* when comparing time periods with significantly different tax rates. If behavioral responses are significant, then static revenue estimates which disregard taxpayer responses will also exaggerate potential revenue losses from lower tax rates and exaggerate potential revenue gains from higher tax rates.

Piketty and Saez developed a rich historical data series from a sample of individual income tax returns, defining postwar income narrowly to exclude transfer payments and unreported income. One aspect of the Piketty-Saez data—the share of income reported by the

top 1%—has been widely used to make broad generalizations about the level or change of pretax, pretransfer income inequality for the population as a whole (Reynolds 2007). Those same data will be used in this paper to *gauge behavioral responses* among high-income taxpayers in response to past changes in top marginal tax rates on individual income, corporate income, capital gains and dividends.

Comparing the time series data of Piketty and Saez on *sources* of top percentile income with changes in various tax rates shows that changes in income shares among the top percentile of taxpayers are consistent with strong *behavioral responses* to several major changes in marginal tax rates on salaries and/or capital gains and dividends. As a result, taxpayer responses to changes in the absolute level of marginal tax rates (elasticity of taxable income) and to changes in relative tax rates applied to different sources of income (income shifting) may be misinterpreted as changes in upper-tier inequality (Henderson, Lawrence, Reynolds 2006 and 2007). Moreover, these behavioral responses are often minimized or ignored when estimating the revenue and distributional impact of tax changes.

Behavioral Response to Changing Tax Rates

Elasticity of taxable income (ETI) is a broad umbrella that subsumes income shifting and tax avoidance, but also includes reallocating time from formal market activities to do-it-yourself work and the informal cash economy (Davis and Henrekson). Elasticity estimates may also capture some incentive-based (supply-side) changes in real activity such as increased labor effort, entrepreneurship, or investment of time and money in human capital (Prescott, Hubbard, Looney and Sieghal). For the purposes of this paper, however, the emphasis is on the *microeconomic* impact of tax changes on reported income, putting aside any tax-induced effects

on economic growth. By contrast, past controversies regarding static and dynamic revenue estimates often focused on the *macroeconomic* impact of marginal tax incentives and budget deficits on the pace of economic growth (Reynolds 2003 and 2004).

The Tax Policy Center (TPC) claims, "Evidence is mixed on how much high-income taxpayers react to their tax rates: most research has found only relatively small permanent reductions in income, but that taxpayers with the highest incomes respond more to tax changes than those with lower income." That questionable opinion is usually moot, since past TPC estimates invariably included a footnote explaining that, "The estimates are static and do not account for any microeconomic behavioral response." When comparing the candidates' plans, that is exactly the static method the TPC uses to score McCain's plan to cut the corporate tax rate—assuming a lower corporate rate has no effect on anyone's behavior must maximize its hypothetical revenue loss and its assumed distributional impact (which will be discussed later). Such static estimates replace economics with bookkeeping.

When evaluating Obama's increase in tax rates, however, the TPC estimates "incorporate a 0.25 elasticity of taxable income with respect to the marginal tax rate on ordinary income [and] a long-run elasticity of capital gains realizations with respect to the maximum tax rate on capital gains of 0.25."[1] The evidence in this paper suggests that those elasticity estimates are *much too small* and that the estimated revenue gains from the Obama tax increases are therefore much too large. Conversely, the TPC's indefensible static assumption of *zero* elasticity for the corporate tax greatly exaggerates the revenue loss, if any, from McCain's plan to bring the corporate tax rate down to 25% (as most other countries already have).

[1] These two elasticity estimates do not appear in the paper itself, but in a footnote to background tables http://www.taxpolicycenter.org/numbers/Content/PDF/T08-0192.pdf

When it comes to the Obama plan, the Center's seemingly offhand behavioral caveat— that "taxpayers with the highest incomes respond more"—is actually critical. Taxpayers with the highest reported incomes (an Adjusted Gross Income above $200,000, or $250,000 on joint return) are the intended targets of Senator Obama's plans to increase tax rates. Since "taxpayers with the highest incomes respond more," assuming an ETI of only 0.25 ensures large estimating errors.

Those who step over that $200-250,000 AGI line would suddenly discover their marginal tax rate has jumped from 28% to 36% on any additional income, would pay a higher tax than anyone else on capital gains and dividends, would eventually pay an extra 2-4% payroll tax, and their actual marginal rate would be higher than the statutory rate because of Obama's restoration of PEP/Pease phase-out of exemptions and deductions.[2]

The unusually abrupt kink in tax rates when marginal income moves from a 28% to a 36% tax bracket under the Obama plan should make any couple with earnings in the vicinity of that $250,000 line very cautious about earning and reporting much income above $250,000.[3] To retain valuable deductions and exemptions, for example, a large two-earner family in a high-tax state could keep AGI below the threshold by increasing 401(k) contributions, switching investments into tax-free bond funds, avoiding realization of capital gains or becoming a one-earner family. This is not just a matter of statutory tax rates *per se*. The proposed PEP/Pease

[2] PEP stands for "personal exemption phase-out"—*personal exemptions shrink* by 8% for each $10,000 of AGI above a certain threshold. Pease phases-out *itemized deductions* (which shrink by 8% for each $10,000 above the AGI threshold).

[3] *The New York Times*, September 18, 2008, reported that in 2007 Senator Joe Biden and his wife "paid taxes of $66,273 on an adjusted gross income of $319,853 and claimed $62,954 in deductions." Under the Obama-Biden plan they would be denied half of those deductions unless they nudged their combined income down a bit.

phase-out of deductions and exemptions would also affect behavior (ETI), although this does not appear to be included in TPC revenue estimates.

If behavioral responses to such steep marginal disincentives are significantly larger than the Tax Policy Center assumes, then their estimates of revenue to be expected from higher tax rates on high incomes could lead policymakers to embark on major new spending plans on the basis of revenue estimates that would later prove to have been much too optimistic.

Among 14 studies surveyed by Giertz (2004), the most recent (1999 to 2003) estimates for *permanent* (rather than transitory) ETI were 0.57 from Auten and Carroll, 0.40 from Gruber and Saez, and 0.53 from Kopczuk. For the TPC to describe those responses as "relatively small" is misleading. Carroll and Hrung imply the 0.4 estimate in Gruber and Saez represents a consensus estimate, but estimates for high-income families (including Giertz 2007) are actually well *above* 0.40. Gruber and Saez estimate an ETI of 0.57 at incomes above $100,000, and elasticity is likely to be higher still at incomes above $250,000. Saez (2004) estimates a permanent elasticity of 0.62 among the top 1% for gross rather than taxable income. In short, the TPC assumption of an elasticity of 0.25 is *barely half* what the literature suggests would be appropriate for high-income taxpayers.

As an OECD report on the U.S. economy put it, "higher-income taxpayers appear to be more responsive to taxation than others—raising the possibility than yields from this group might rise if their [marginal] tax rates fell."

Skeptics may point out, correctly, that elasticity estimates that focus exclusively on a few years surrounding the narrowly-targeted 1993 increase in tax rates are about half as large as estimates from studies that also include the more dramatic policy changes of the 1980s. Estimates for the 1990s are complicated, however, by the 1988-92 proliferation of nonqualified

stock options which had to be exercised 3 or more years after they were granted regardless of tax rates at the date of exercise (Liang and Weisbenner; Eissa and Giertz). Elasticity estimates that rely on total income (including capital gains and exercised options) can also be confounded by the high elasticity of *capital gains* realizations in response to the *reduction* of that tax rate in 1997 and the boom in Internet stocks.

Anticipation of higher tax rates in 1993 also led to some executive bonuses being paid in 1992 — a fact that has been misinterpreted as demonstrating the ETI is a temporary phenomenon for *all* high-income taxpayers. Eissa and Giertz, however, found this "anticipation effect" largely confined to executives. They also note that "while earned income (before deductions) appears less responsive to changes in tax rates for executives than for other very high income taxpayers, it does not necessarily follow that executives are also less responsive when measured by full taxable income. It may be that incomes for executives are very responsive to tax changes, but that the margins by which executives respond are not reported in the executive compensation data, where, for example, income from outside the firm, spousal income, and deductions and exemptions are not reported."

Comparing the Candidates' Plans with Current Policy

The Tax Policy Center's estimates of revenues lost or gained from the candidates' plans are compared to what would happen if all the tax cuts of 2001-2003 expired in 2011 (which neither of the major political parties wants to do), rather than being compared to *current* 2008-2010 tax policy. That is, estimated revenue losses attributed to the candidates' plans are compared with a hypothetical CBO "baseline" which assumes the *average* tax burden suddenly rises from a historically average rate of 18.6% of GDP in 2010 to 20.1% in 2013, causing tax receipts to rise by 26% in just three years.

What people want to know, however, is how each candidate's plan compares with the other, and with current (2008-2010) tax policy.

Both Obama and McCain would make the R&D tax credit permanent and keep patching the alternative minimum tax (AMT), for example, just as Congress has done for many years. That accounts for more than $1 trillion of the 10-year revenue loss (relative to the hypothetical baseline) attributed to both candidates. Both candidates favor a cap and trade system for carbon emissions, which would be a *de facto* energy tax. Setting those similarities aside simplifies comparison of the candidates' plans.

In **Table 1,** which uses current policy as the baseline, leaving current policy unchanged would neither add to nor subtract from revenues. Obama would freeze the 2009 estate tax policy, for example, so that is recorded as zero change and McCain's lower estate tax is shown as the estimated revenue difference between that policy and Obama's.

Similarly, because McCain would retain current tax policy with respect to the individual income tax, that is shown as zero change. The difference between TPC estimates of Obama's proposals and McCain's thus reveals their estimate of the additional revenue to be expected from raising the top two tax brackets and the tax rates on dividends and capital gains. These comparative changes are shown in **Table 1**, together with this author's judgmental, illustrative estimates of what the evidence in this paper suggests the "Reynolds estimates" might look like *if* behavioral effects were properly taken into account

When it comes to estimating added revenues from higher tax rates, it is convenient to begin with a purely static estimate, one that incorporates no behavioral response at all. In October 2006 the Tax Policy Center was still assuming an ETI of *zero*, and estimated on that static basis that raising the top two tax rates back to 36% and 39.6% could increase revenues by

only $30.5 billion in 2009 and $31.1 billion in 2010.[4] If we assumed that figure would increase by5% a year, to keep pace with the September 2008 CBO projections for nominal GDP growth, our estimate of the *static* revenue gain would add up to $370.7 billion over 10 years.

As Carroll and Hrung note, however, even assuming a fairly low ETI of 0.40 means "over 50 percent of the static revenue gain [from increasing the top two tax rates] might be offset through the taxable income response." Cutting the $370.7 billion static revenue estimate in half leaves $185 billion of extra revenue in 2009-2018 from raising the top two tax rates.

The newer August 15, 2008 TPC estimates suggest that raising the top two tax rates could raise *$37.3 billion* in 2010. That includes about $9.2 billion (the TPC's estimate for 2011 is $9.7 billion) from the PEP/Pease phase-outs of deductions and exemptions. Estimated revenue from higher tax rates alone would be $28.1 billion in 2010, not much lower than the previous static estimate of $31 billion.

The TPC estimate of $9.7 billion from PEP/Pease in 2011 would add up to $110 billion from 2009-2018. Assuming a very modest behavioral response, that figure is trimmed to $100 billion which, when added to the aforementioned $185 billion, leaves a total ten-year "Reynolds estimate" **in Table 1** of $285 billion from this central plank of the Obama plan.

Contrast that $285 billion with the TPC estimate of an extra *$614.4 billion* from Obama's plan of raising the top two tax rates and phasing-out deductions and exemptions. More precisely, the TPC predicts that *all* of Obama's increases in individual tax rates would yield

[4] http://www.taxpolicycenter.org/numbers/Content/PDF/T06-0248.pdf Footnote 1 says, "Estimates are static and do not account for any potential microeconomic behavioral response; official revenue estimates by the Joint Committee on Taxation (JCT) would likely show a somewhat smaller revenue gain."

$781.2 billion *more* than leaving rates where they are (the McCain plan).[5] However, **$**166.8 billion of that total is from raising the tax rate on dividends ($49.3 billion) and capital gains ($117.5 billion). The remaining $614.4 billion gap in TPC estimates of individual tax receipts under the Obama and McCain plans indicates the TPC estimate of 2009-2018 revenue from raising the top two tax rates and phasing out deductions and exemptions.

Different estimates of the elasticity of taxable income are not enough to account for the *$329.4 billion gap* between the TPC's estimates of *$614.4 billion* from raising top tax rates and this paper's estimate of *$285 billion*. In fact, it is very difficult to account for the gap between that $614.4 billion and the TPC's own estimate of just $37.3 billion for 2010.

The ten year revenue estimate for Obama change in top tax rates and deductions (when compared with the McCain *status quo*) is nearly *17 times as large as* the same study's single-year estimate. If the 2010 estimate of $37.3 billion grew at the same pace as CBO projections of nominal GDP, the 2009-2018 total would be $433.3 billion, not $614.4 billion. When it comes to Tax Policy Center estimates of individual tax revenues (aside from capital gains and dividends), there may be some logical explanation of the seemingly exaggerated long-term revenue gap between the Obama and McCain plans. In the meantime, such mysteries remind us that estimates are just estimates.

The widely publicized TPC estimates of added revenue from Obama's plan to raise the top two tax rates appear much larger than can be reasonably explained, even by the use of an artificially low ETI. As a result, the Obama economic team appears to be counting on *inexplicably rosy* TPC revenue projections in order to justify embarking on long-term, nearly

[5] Compared with the hypothetical CBO baseline, the TPC estimates that receipts from individual income taxes would be lower by $1,729.8 billion in 2009-2018 under McCain's *status quo* policy, but only $948.6 billion lower under the Obama plan.

irreversible plans to dole out an additional $1.32 trillion in refundable tax credits and special exemptions (**Table 4**). If millions more non-taxpayers began to feel entitled to the equivalent of perpetual "rebate" checks for various reasons, it would surely prove politically challenging for any future administration to stop sending those checks.

Tax Rates vs. Tax Revenues

Relatively high elasticity of reported taxable income among high-income taxpayers is consistent with (and helps explain) recent U.S. experience shown in **Figure 1**. The maximum tax rate fell from 50% in 1986 to 28% in 1988-1990, yet individual income tax receipts *rose* from 7.9% of GDP in 1986 to 8.3% in 1989. The top tax rate rose to 31% in 1991 and revenue *fell* to 7.6% of GDP in 1992. The top tax rate was increased to 39.6% in 1993, along with numerous major revenue enhancers such as raising the taxable portion of Social Security benefits from 50% to 85% for retirees who saved or worked. Yet individual tax revenues were only 7.8% of GDP in 1993, 8.1% in 1984, and did not exceed the 1989 level until 1995.

Figure 1 shows that changes in the revenue yield of the individual income tax are closely related to the business cycle, particularly the stock market, but appear almost totally unrelated to the ups and downs of the highest marginal tax rates on ordinary income. Revenue from capital gains, by contrast, is strongly but *inversely* related to the tax rate on capital gains: Revenues rise when the capital gains tax rate falls, and vice-versa.

Figure 2 shows that the percentage of income tax receipts due to realized capital gains fell for ten years after the top tax on capital gains was increased to 28%, and then soared after 1997 when the capital gains tax rate was cut to 20% and again after 2003 when that tax rate fell to 15%. Although some analysts use "stylized facts" (careless impressions) to attribute the

strong revenue surge of 1997-2000 to the 1993 increase in ordinary income tax rates, a sizable portion of the 1997-2000 revenue gain was actually due to a behavioral response to the *reduced* tax rate on realized capital gains —a topic discussed in more detail later in this paper.

Tax Credit Entitlements

Estimated revenue losses unique to the Obama plan (unlike the AMT patch) mainly consist of the $1.25 trillion for six new and expanded refundable tax credits. These include a "Making Work Pay Credit" of 6.2% up to a maximum of $8,100 of earnings ($502 per earner); a refundable mortgage credit of 10% for nonitemizers who also claim the generous standard deduction; an "American Opportunity Tax Credit" to cover the first $4,000 of qualified tuition expenses; a saver's credit to match half of the first $1,000 for taxpayers earning less than $75,000; a refundable child care credit for low-income families, and expansion of the earned income tax credit (EITC). Senator Obama also proposes to further reduce ten-year revenues by $70 billion by offering tax-exemption for seniors with incomes below $50,000 (phased-out at $60,000). He has also promised a $1000 per couple energy credit but that is not yet included in the TPC estimates of the cost of his plans. Indeed, neither candidate's promises to increase spending directly rather than through the tax code are included in the TPC estimates.[6]

Refundable tax credits are described as a "middle class tax cut," but only the "Making Work Pay" credit actually claims to benefit 95 percent of *workers*. That is not the same as

[6] "Barack Obama's Economic Agenda," at barrackobama.com, offers "a fund to help people refinance their mortgages and provide support," and "tax assistance and loan guarantees to the domestic auto industry" and "increase[d] funding for federal workforce training programs" and "doubling federal funding for basic research." He had also promised $150 billion over ten years to subsidize windmills, solar and biofuels firms.

benefiting "95 percent of *Americans*," as campaign rhetoric implies, because 21% of households had no workers in 2007 and only 51% had any full-time workers.[7]

All other refundable tax credits are phased-out at low or relatively modest income levels, resulting in higher *marginal* tax rates at lower incomes—because earning more income in the phase-out range would result in a loss of tax credits (Brill and Viard). Higher marginal tax rates discourage part-time workers from working full-time, discourage one-earner families from becoming two-earner families, and thwart upward mobility in other ways (Browning). Such incentive effects can slow the growth of the tax base and, therefore, the growth of revenue, but are ignored here for the sake of simplicity.

The percentage of tax filers who owed no tax was 33% by 2005 and rising (Laffer and Moore) and nearly 13% of households do not file tax returns. For millions of households in the bottom 40% of the income distribution who already pay little or no income tax, refundable credits mean *receiving checks* that could add up to several thousand dollars from the Treasury. In many cases, that would be in addition to checks from existing refundable credits such as the child credit or the EITC (up to $4,716 in 2007). The refundable feature of the new Obama tax credits is precisely equivalent to federal spending on transfer payments except that the payments are administered by the IRS (Ferrara). Perhaps because they are not subject to the same legislative and public scrutiny as transfer payments labeled as spending (such as welfare or food stamps), refundable tax credits tend to grow in scope and generosity. The EITC was expanded in 1986, 1990, 1993 and 2001 so that by 2007 it benefited 22 million families and cost more than $43 billion.

[7] http://pubdb3.census.gov/macro/032008/hhinc/new05_000.htm

The argument for Obama's tax plans is expressed in terms of *fairness*, rather than the impact on incentives and economic performance, yet the implied concept of fairness remains ambiguous. A single senior with a retirement income of $50,000 has the same *per capita* income as a two-earner family with $250,000 and three children. Yet the retired senior would be *exempt* from income tax, under this plan, while the large working family would be required to pay federal and state taxes of up to 46% on their next dollar of income while losing valuable deductions (e.g., for state income taxes and mortgage interest) and also losing five personal exemptions (which were supposed to be partial compensation for the added expense of supporting a larger family). The fairness of such a reallocation of tax burdens is, to put it mildly, not self-evident.

The Tax Policy Center estimates that over the next ten years (2009-2018) the new and expanded tax credits would amount to nearly $1.25 trillion. Tax exemption for seniors boosts the total of new tax-based entitlements to *$1.32 trillion* ($1,316.8 billion). That estimate assumes no behavioral response, such as people deliberately keeping reported income below cut-off levels in order to qualify for these tax credits. Lacking any clear way to incorporate such behavior, we nonetheless incorporate the $1.32 trillion estimate in **Table 1**. The actual revenue loss would probably be substantially *larger* because people would have an incentive to *understate* their actual income (a simple task for those paid in cash) or to overstate the number of dependents (another familiar fraud problem with the EITC) in order to qualify for federal checks.[8]

[8] Citizens for Tax Justice cites difficulties with EITC fraud "to illustrate that spending money through the tax code—even for the best of purposes—is not likely to be an improvement over spending it directly. On the contrary, asking the IRS—whose normal mission is to collect money from people—to run a program to *give* people money goes against the grain and has inherent administrative drawbacks." http://www.ctj.org/hid_ent/part-3/part3-3.htm

Obama's health care plan relies to a large but unspecified degree on "a new refundable 50 percent cent health tax credit on employee premiums paid by employers." The TPC estimates that Obama's health insurance tax credits would cost about $1.63 trillion over ten years.

The National Taxpayers Union Foundation estimates that Obama's explicit spending promises (as opposed to transfer payments through the tax code) would cost $293 billion a year, roughly $2.9 trillion over ten years. Offsetting spending cuts in a Committee for Responsible Budgeting brief are vague, such as "unspecified cuts to slow spending" ($50 billion a year in 2013), "reform government spending" ($17 billion), "reduce Medicare costs ($43 billion) and withdrawal from Iraq ($55 billion for Obama, but only $5 billion for McCain).

Even if we cut the NTUF spending estimate in half to $1.45 trillion over ten years, adding that sum to Obama's $1.32 trillion for tax credits and his $1.63 trillion health plan, would cut revenue or raise spending by some $4.5 trillion over ten years.

Given the large budget deficits anticipated in 2009 and beyond, how could the government pay for that extra $4.5 trillion? Certainly *not* by raising the top two tax rates, which (as shown before) appears unlikely to bring in much more than $285 billion over ten years.

The widespread impression that the Obama economic team expects to pay for all these tax credits by raising the top two tax rates is simply incorrect. They have an even less credible source in mind.

In his acceptance speech at the Democrat's convention on August 28, Senator Obama said, "I've laid out how I'll pay for every dime—by closing corporate loopholes and tax havens." That comment refers to *$924.1 billion* over ten years from what the TPC wisely labels "unverifiable revenue raisers." The September 2008 CBO baseline expects $3,657 billion from corporate taxes over that period. That means *Obama is counting on increasing corporate tax*

collections by more than 25% by simply by closing "loopholes" and "tax havens." Nobody, including the Tax Policy Center, believes that plug in the budgetary dike is remotely feasible.[9]

In fairness, Senator McCain also relies on his own plan to end "corporate welfare" (e.g., tax favoritism for exporters and the oil industry). But the McCain plan only claims that would add $364.8 billion. The TPC verifies only $97 billion from a loophole both candidates would close; the rest of the promised revenue is largely conjectural.

Behavioral responses cannot be ignored when dealing with corporate tax lawyers and accountants. It not terribly difficult to offset the unusually high U.S. corporate tax rate by, say, taking on too much tax-deductible debt or by shifting business to more tax-friendly countries. In **Table 1**, the author's estimate reluctantly and arbitrarily allocates $300 billion to Obama and $150 billion to McCain for their lists of unverifiable revenue raisers. Such efforts might bring in significant revenue, if they got past the lobbyists, but it would be imprudent to count on it. And some of these proposals might do more harm than good (e.g., to international trade).

For the Obama plan to promise $1.32 trillion for tax credits and exemptions (plus $1.6 trillion for health insurance tax credits) mainly on the basis of an unverifiable hope of collecting 25% more from big U.S. corporations (which have not been terribly profitable lately) does not seem to be responsible budget planning.

When discussing the McCain's decision to eschew raising the top two tax rates, the Tax Policy Center acknowledges that "lower marginal tax rates would improve economic efficiency

[9] In speeches, Senator Obama emphasizes the taxation of carried interest as capital gains, which benefited hedge fund managers (before most of them lost a fortune in 2008). A proponent of that reform, the Center for Budget and Policy Priorities, believes "the revenue lost by taxing carried interest as capital gains could easily amount to several billion dollars a year," but rightly describes that sum as small. http://www.cbpp.org/7-31-07tax.htm

and *lead to higher reported incomes* in the long run [emphasis added]." But *neither of those effects is properly included in the TPC predictions* of the revenue potential from Obama's alternative plans. The same logic tells us the higher marginal tax rates would *worsen* economic efficiency and lead to *lower* reported incomes, with both effects having *negative* effect on tax revenues that are not reflected in the TPC's estimate of the implausibly wide gap in tax receipts between the Obama and McCain tax plans.

Citing the TPC, Mallaby says, "There's no doubt that Obama's higher tax rates would mean weaker incentives to work, take risks and innovate, and stronger incentives to waste time and effort on avoiding the tax man. But those bad effects must be weighed against a good one: Higher tax rates mean a lower budget deficit." On the contrary, those "bad effects" for the economy are *also bad for tax revenues*, which means the net impact of higher tax rates on the budget deficit is less than claimed and possibly negative once microeconomic responses (ETI) and macroeconomic bad effects are taken into account.

In addition to promising far more revenue than appears plausible from closing corporate loopholes, the Obama economic plan explicitly relies *on the Tax Policy Center* for revenue estimates. Yet the TPC's estimates of added revenues from raising the top two tax rates appear much too optimistic, and so do their estimates of added revenues from a higher tax rate on capital gains, dividends and estates.

Illusory Revenues from a Higher Capital Gains Tax

The news on August 14, 2008 (Furman and Goolsbee) that Senator Obama proposes to raise the tax on capital gains to 20%, rather than 25-28%, was a surprise. New TPC estimates claim Obama's new 20% tax on capital gains and dividends would bring in $117.5 billion less

revenue than a 25% tax over the next ten years. That suggests the TPC is also assuming that raising the tax from 15% to 20% would likewise add $117.5 billion. But the actual revenue will depend on *how taxpayers respond* to a higher tax rate.

Nobody can be compelled to hold assets subject to the capital gains tax in a taxable account (as opposed to a tax-free savings account), and nobody who owns such assets has to sell them frequently, regardless of offsetting losses. To minimize taxable capital gains, active investors can follow the old rule: "Hold the winners and sell the losers." Mutual fund investors can simply buy tax-managed funds, or tax-exempt bond funds.

There is ample evidence that a higher capital gains tax discourages investors from selling assets as frequently, thus resulting in little or no added revenue. Estimates of the elasticity of *realized* capital gains are generally much higher than those for ordinary income, perhaps twice as high.

The Congressional Budget Office, like the Tax Policy Center, has a long history of underestimating investor reactions to a lower or higher capital gains tax. "The actual 1992 level of capital gains was only 41 percent of the level projected by the Congressional Budget Office" (Feldstein).

Once again, the CBO (2008) claims, "The best estimates of taxpayers' response to changes in the capital gains tax rate do not suggest a large revenue increase from additional realizations of capital gains —and certainly not an increase large enough to offset the losses from a lower rate." Similarly, Bob Williams of the TPC told *The Wall Street Journal* (August 14, 2008), "There is no evidence that a higher capital gains tax impacts long-term behavior."

Those CBO and TPC assertions describe the *elasticity* (responsiveness) of taxpayers to this tax. If investors would realize just as many gains regardless of whether the tax on gains was 15% or 40%, then the elasticity would be zero. If the drop in realizations was large enough to offset revenue losses from a lower rate, however, then the elasticity would be one (technically that means *minus* one or -1.0). Consistent with Williams' comment, the TPC's predictions of the revenue potential of Obama's increased capital gains tax assume a startlingly low elasticity of just 0.25 for realized capital gains.

Even the CBO's own studies show the elasticity of taxable capital gains is certainly *not* close to zero as the TPC assumes. The May CBO report just claims it "certainly" could not be one (even though several recent estimates are actually *above* one). But even if the elasticity was *almost* one (such as 0.9) then raising the capital gains tax from 15% to 20% on only the top few taxpayers would raise a small fraction of what the TPC predicts. The author's estimate in **Table 1** is not the TPC's apparent estimate of $117.5 billion, but $20 billion. That requires some explanation.

A footnote to the CBO's comment about the "best evidence" listed just three secondary sources, only one of which might appear consistent with what the TPC's super-low 0.25 estimate for the elasticity of reported capital gains.

One of the CBO's cited sources, a survey by Zodrow, was one of the leading sources of eleven studies summarized in Reynolds (1999)—the source of many of the following comments. Those eleven studies—from the CBO, Treasury and prominent academics—presented a *range* of estimates of *permanent* (not transitory) elasticity that averaged 0.9 using only the *lowest* of

what was in some cases a significant range of estimates. Four studies specifically estimated which capital gains tax rate would maximize revenues; those answers varied from 12% to 21% and averaged 17%.

A subsequent paper by Auerbach and Siegel found, once expectations of the following year's tax rate was taken into account, a permanent elasticity as large as 1.7. Auten and Joulfaian found, for those with at least $400 of investment income, a permanent elasticity of 0.75 from 1979 to 1995, and 1.3 for the 1980-85 period.

The CBO footnote also cites Jane Gravelle's 1994 book, *The Economic Effects of Taxing Capital Income.* Gravelle theorized that the elasticity could not be one based on the factually incorrect "assumption that all capital gains accruals are ultimately taxed during the life of an investor." What is far more relevant is that the same book acknowledges that federal agencies responsible for revenue estimates used elasticity estimates close to one: "The Joint Committee on Taxation used a 0.7 elasticity at a 20 percent tax rate and a 0.975 elasticity at a 25 percent tax rate. [Treasury's] Office of Taxation Analysis used a 0.9 percent elasticity at a 20 percent rate and a 1.125 elasticity at a 25 percent rate." Those official estimates are *three or four times* as large as the 0.25 elasticity used by the Tax Policy Center to estimate revenue gains from the Obama plan.

Most significantly, the CBO also cites *The Labyrinth of Capital* Gains — a 1999 book by Len Burman, director of the Tax Policy Center. Referring to his 1994 study with William Randolph, Burman writes, "The response of individuals to permanent differences in tax rates was small or zero." But that is *not* what the 1994 Burman-Randolph study said. That study said, "long-run elasticities of 0.0 and 1.0 are both included in a 95 percent confidence interval,"

assuming an 18% tax rate. A 95% chance that the best estimate lies somewhere between zero and one scarcely settles the issue.

A new TPC briefing book claims this "1994 study found that this [lock-in] effect was very small for permanent changes in capital gains tax rates." But that study did *not* distinguish between temporary and permanent tax changes. Burman and Randolph studied only the unusual bust-to-boom period of 1980-83, when lower tax rates were expected to be *permanent*, not temporary.

Burman and Randolph mentioned the importance of expected future tax rates, yet failed to notice that the reduction of marginal income tax rates enacted in late 1981 was *phased in*. The cumulative decline in tax rates amounted to only 10% in 1982, but 19% in 1983 and 24% in 1984.

In 1980, the theoretical maximum capital gains tax was 28% —40% of the 70% tax rate. But that 70% rate affected only 63,000 of 92.7 million tax returns in 1979. Fewer than 2% of taxpayers were even in brackets above 49% and fewer still in the stagflation of 1980. Even if half of the top 2% reported capital gains managed to have some capital gains to tax in 1981 (no easy feat) that left at least 99% of taxpayers facing the same capital gains tax in 1981 as they did in 1980.

For that 99%, the reduction of the capital gains tax rate that Burman and Randolph described as taking effect in 1981 did not actually take effect until 1983-84. Nearly all taxpayers had an incentive to *delay* realizing capital gains until then. Consistent with that incentive, the volume of realized long-term gains increased from less than 2.4% of GDP in 1981 to 2.6 % in 1982, 3.3% percent in 1983, 3.5% percent in 1984 and 4% in 1985. After the capital gains tax was increased in 1987, by contrast, realizations dropped to only 2.3% of GDP for ten

years.

Zodrow criticized the Burman-Randolph paper on technical grounds. I excluded it from my 1999 average because Burman and Randolph failed to account for the effect on expectations of phasing in lower tax rates on the timing of asset sales, and because that study could not rule out an elasticity of either zero or one.

When economists from the Tax Policy Center assume a long-term elasticity of only 0.25 for capital gains, they are forced to rely on their director's flawed and ambiguous 1994 study—a study which cannot, in fact, rule out a long-term elasticity of *one* at a tax rate *lower* than 20%, which would imply zero revenue gain from Obama's plan to raise the capital gains tax rate to 20%.

The bulk of evidence about elasticity does *not* prove conclusively that a 20% capital gains tax would not yield slightly more revenue than a 15% rate over the long run. But it *does* suggest that the elasticity is *at least* three times as high as 0.25, as the TPC assumes, so that any revenue gains from raising the capital gains tax rate from 15% to 20% for just a small fraction of taxpayers would be very small. The "Reynolds estimate" in **Table 1** estimates only about $20 billion in added revenue (over ten years) from the 20% capital gains tax.[10] That estimate excludes several other effects that could conceivably negate even that modest revenue gain, such as the lower prospective after-tax return being capitalized in lower asset prices (Reynolds 1999).

If anyone is seriously interested in raising more revenue from the capital gains tax, far more effective reforms would be to repeal the zero tax rate on gains reported in the 10-15% tax brackets (which invites inter-family asset transfers), reduce the holding period required to qualify

[10] All author's estimates are necessarily judgmental rather than model-based because no revenue-estimating model incorporates the evidence summarized in this paper regarding ETI and income shifting.

for the lower tax rate on long-term gains (which discourages optimal timing of asset sales), and scale back the 1997 exemption of $500,000 for capital gains on home sales (which probably encouraged speculation in homes).

Taxing Dividends

Both Obama and McCain would tax dividends and capital gains at the same rate, which is far less distortive than pre-2003 tax law. Imposing a higher tax on dividends than on capital gains (before 2003) artificially discouraged firms from paying dividends and artificially discouraged investors from holding dividend-paying stocks in taxable accounts.

When it comes to dividends, the TPC apparently assumes *no* behavioral response—equivalent to assuming zero ETI. They therefore predict that Obama's 20% tax on dividends would raise about a third more than a 15% tax from the small number of taxpayers reporting incomes above $200,000. As a result, the TPC adds $49 billion over ten years. But taxable dividends would be part of the reported income that could push taxpayers into the punitive tax brackets, which is reason enough for those approaching that income level to prefer a tax-exempt money market fund.

In January 2003 the TPC estimated that taxing dividends at the same rate as capital gains would *lose* $7-8 billion a year through 2008 and more later.[11] What happened instead is that the *amount* of dividends reported on individual tax returns nearly doubled in a single year, rising from $103.2 billion in 2002 to $196.1 billion in 2003 and $285.5 billion in 2005.[12] Not all of

[11] http://www.taxpolicycenter.org/numbers/Content/PDF/T03-0053.pdf

[12] http://www.irs.gov/taxstats/indtaxstats/article/0,,id=133414,00.html#_complete Various years.

those dividends were qualified for the 15% tax (many dividends are actually interest from money market funds). Still, total revenues from dividend taxes soared, particularly from those in the top 1%.

One reason, Chetty and Saez found, was that there was a rapid and sizable increase in corporate dividend *payouts* in the wake of the dividend tax cut. Moreover, as shown in **Figure 5**, the amount of real, inflation-adjusted taxable dividends reported *by the top 1%* of taxpayers, after languishing for many years, soared from 2003 to 2006. Instead of collecting *35% of zero* (taxable dividends the affluent eschewed), the IRS was suddenly collecting 15% of a larger sum. Given this apparent sensitivity of reported dividends to tax rates among high-income taxpayers, the Tax Policy Center's static estimate of $49 billion in extra revenues from raising the 15% tax to 20% appears much too generous. The Reynolds estimate in **Table 1** is $10 billion.

Whether we are talking about *reported* dividends, capital gains or business income, the *elasticity* of such reported income must be taken into account when estimating how changes in tax rates affect the distribution of income. That is essential because income is being estimated (by the TPC, CBO and Piketty and Saez) according to what is *reported* on individual tax returns. If the elasticity of reported income and capital gains is as high as most evidence suggests it is, we should expect that *more income will be reported* by the top 1% when top tax rates are reduced.

To test that hypothesis, **Table 2** shows the amount of *real*, inflation-adjusted income reported by the top 1% of taxpayers in the form of capital gains and dividends, and the same

table also shows the top *tax rates* applied to capital gains and dividends.[13] The same information is also provided in **Figure 4** (for capital gains) and **Figure 5** (for dividends).

It appears incontrovertible that the top 1% reported a much larger volume of capital gains when the tax rate was 20% than they did over ten years when capital gains tax was 28%. The volume of real gains reported in 2005-2006 was even higher than it was during the Internet bubble of 1997-2000 when stock market gains were far more dramatic, showing the 15% tax rate resulted in more capital gains being reported than would have been the case with a 20% tax rate.

The last column of **Table 2** also shows that reported *dividend income* among the top 1% rose by an unprecedented *141%* in real terms between 2002 and 2006, soon after the tax on dividends fell to 15%. If we (wrongly) assumed that all dividends in 2004 were taxed at the maximum rate, that 141% rise would not be quite sufficient to offset the lower tax rate. Yet taxpayers in lower brackets were responsible for a sizable share of taxable dividends before 2003, so the possibility that the 15% dividend tax has been self-financing cannot be ruled out. These behavioral responses to lower tax rates on dividends and capital gains (along with income shifting in response to the equalization of individual and corporate tax rates) greatly increased the amount of income recorded on the top 1% of tax returns. But that means the lower tax rates increased the amount of top incomes subject to tax.

Considerable evidence regarding the elasticity of taxable income is consistent with observed increases in *reported* income among high-income taxpayers in the wake of significant reductions in tax rates on high salaries (1987-88 and 2003), capital gains (1997 and 2003), and

[13] Piketty and Saez show total income of the top 1% with and without capital gains, so capital gains in this table is just the difference between those two series. Their Table A7 shows the percentage of top 1% income from dividends, which is multiplied by the top 1% money income (their share of total income less capital gains). Both figures are adjusted for inflation using the CPI.

dividends (2003). It follows that significant *increases* in tax rates on high salaries, dividends and capital gains of the sort Obama proposes are likely result in significant *reductions* in the amount of such income reported on individual tax returns. Higher tax rates on marginal additions to higher incomes would yield much less revenue than would be suggested by TPC estimates. And those in the top 1-2% would often report less taxable income rather than pay much more in taxes, making the TPC distribution tables incorrect as well.

Estate Tax Planning vs. the IRS

Obama proposes to retain 2009 estate tax rules by exempting $3.5 million from the estate tax, but also imposing a steep 45% tax on amounts above the exemption (creating another big kink).[14]

McCain would tax estates at the same rate as long-term capital gains. The lower tax rate on assets held until death should greatly reduce distortions in the timing of asset sales and gifts, and tax avoidance strategies in general ("estate planning"), thus mitigating much of the apparent (static) revenue loss. McCain would also raise the exemption to $5 million, which unambiguously reduces revenues.

Estimates of revenues lost by reducing the 45% tax rate to 15% on do not account for the ways in which avoiding the estate reduces the amount of income subject to the individual income tax. The estate tax *lowers income taxes* through such devices such as giving stocks and bonds to heirs in lower tax brackets, funding M.D. degrees for grandchildren, deducting tax-avoiding life

[14] High marginal tax rates and large exemptions (a narrow base) meet the textbook definition of inefficient taxation.

insurance premiums from business income, and setting up tax-exempt foundations. For such reasons, Bernheim concluded "available evidence suggests that, historically, true revenues associated with estate taxation may well have been near zero, or even negative."

In **Table 1**, the TPC estimates that McCain's 15% tax on estates above $5 million would reduce 10-year revenues by $295.5 billion more than retaining 2009's 45% estate tax rate and smaller exemption. Adopting a cautious version of Bernheim's analysis, the Reynolds estimate reduces that loss to $100 billion but also *adds* $30 billion to *individual* tax receipts and $20 billion to capital gains tax receipts (both of which would otherwise be reduced by more aggressive estate tax planning).

A distribution table in a TPC paper by Burman, Gale and Rohaly is titled, "Who pays the estate tax?" The economists answer that question by assuming the tax is paid by dead people rather than the burden being borne by their less-affluent heirs. That is surely a debatable concept of tax incidence.

TPC distribution tables purport to show that reducing the estate tax rate would be "regressive." That not only assumes the tax is borne by the deceased rather than by heirs, but also assumes the estate tax is harmless to the performance of the economy. As the Congressional Budget Office (2005) noted, however, an estate tax can "lead people to invest less than they would otherwise" and "reduce entrepreneurial efforts." And that, in turn, can have an adverse impact on lower-income workers. As Stiglitz explained in "Notes on the Estate Tax" back in 1978, "reductions in savings and capital accumulation will, in the long run, lead to a lower capital-labor ratio; and the lower capital-labor ratio will... lead to an increase in the share of

capital. Since income from capital is more unequally distributed than is labor income, the increase in the proportion of income accruing to capital may increase the total inequality of income."

Corporate Taxes: High Rates = Low Yield

McCain proposes to cut the corporate tax rate to 30% in 2010-11, 28% in 2012-13, 26% in 2014, and 25% thereafter. Phasing in rate reductions has been a bad habit among Republicans (e.g., in 1981, 1986 and 2001), because it provides *incentives to delay* earning and reporting income until after the tax rate falls. House and Shapiro find the 2001 phase-in largely responsible for the sluggish economic recovery in 2002.

The Tax Policy Center's analysis of McCain's plan to cut the corporate tax is *entirely* static, implying an ETI of zero. To have any confidence in such a static analysis requires believing that raising or lowering the corporate tax rates would have *no* microeconomic effect on corporate decisions about where to locate production, income or costs and also *no* macroeconomic effect on the economy's performance. If the TPC assumption of zero elasticity were taken literally then the corporate tax rate could be doubled to 70% and the only effect would be to double corporate tax receipts. This assumption is clearly untenable, and yet it is nonetheless essential to the TPC estimates of the revenue supposedly lost from the McCain plan and also to their distribution tables purporting to show who benefits from that plan.

The U.S. is nearly the only leading economy that has *not* cut the corporate tax rate since 1986. The average corporate tax rate dropped from 37.7% in 1996 to 25.9% in 2008 among 97 countries surveyed by KPMG, and from 38% to 23.2% in the European Union. The U.S.

corporate tax rate is now the fourth highest among the 97 and second highest in the OECD. To get beyond the TPC's uninformative static revenue estimates, we clearly need to look at what happened to other countries after they cut their corporate tax rates.

Using 2005 revenue data for two dozen OECD countries, Fox noted that "all thirteen of the countries with higher corporate tax revenues as a share of GDP than the U.S. have lower corporate tax rates." In eight of those countries with tax rates of 25% or less, shown in **Table 3**, corporate tax revenues ranged from 2.3% to 4.6% of GDP. In the U.S., revenues from the federal corporate tax were unusually large in 2005, at 2.3% of GDP, but ranged from 1.1% to 2.2% from 1983 to 2004 and are projected to be no higher than 2.2% for the foreseeable future.

In a recent Brookings Institution paper, Avi-Yonah and Clausing note that the "increasing discrepancy between U.S. and foreign rates likely results in increasing amounts of lost revenue for the U.S. government due to the strengthening of income-shifting incentives. Also, the literature suggests a substantial real responsiveness to tax rate differences among countries. These findings imply less activity in the United States and less tax revenue for the U.S. government. . . . For most OECD countries, revenues have increased as a share of GDP even as corporate tax rates have declined."

Edwards calculated the average statutory tax rate and average corporate tax revenues as a share of gross domestic product for 19 advanced economies. He found the average corporate tax *rate* among those countries fell from 45 percent in 1985 to 29 percent by 2005. During the same period, their corporate tax *revenues* rose from 2.6 percent to 3.7 percent of GDP. Tax

revenues from Ireland's 12.5% corporate tax rate, for example, were 3.7% of GDP in 2002 and 3.4% in 2005, while revenues from the U.S. 35% tax rate were 1.4% and 2.3% respectively.

Brill and Hassett "find robust statistical evidence . . . that the revenue maximizing point [for the corporate tax] has dropped over time, and is about 26 percent by the end of our sample [2005]." European corporate tax rates were further reduced by another 2.9 percentage points between 2005 and 2008, however, which lowers the revenue maximizing rate *below* 26% in the Brill-Hassett model (KPMG), because the increased competition from low-tax countries reduces the revenue-maximizing rate.[15]

Since many if not most countries have cut the corporate tax rate to 25% or less without experiencing any loss of revenue (more often an increase), Reynolds' estimate in **Table 1** reduces the TPC's estimated revenue loss from a lower corporate tax rate to $200 billion for the corporate tax *per se.* Actually, the *burden of proof* is properly placed on those who claim that revenues would decline at all as a result of a lower corporate tax rate. If the Tax Policy Center expects their huge estimated static revenue loss from cutting the corporate tax rate to be taken seriously, they would need provide some evidence suggesting that other countries that cut the corporate tax rate by ten percentage points typically experienced *any* sustained loss of tax receipts. If Edwards, Brill and Hassett and Avi-Yonah and Clausing are correct, it is quite likely that the current super-high U.S. tax rate on corporations generates no more tax revenue than a much lower, more competitive tax rate.

[15] This is not meant to imply that the revenue-maximizing rate is optimal or ideal. David R. Henderson reminds me that that maximizing revenue from any given tax means the ratio of deadweight loss to revenue from the last dollar collected is close to infinity.

The U.S. is unique, however, in having such a large share of business being taxed under the individual tax regime. This paper's estimate of zero revenue loss of corporate tax receipts is partly because of "income shifting" of business and professional income out of the 35% *individual* income tax (partnerships, Subchapter S corporations and limited liability companies) and *into* the lower 25% corporate tax. As a result of *income shifting*, the McCain plan is estimated to reduce *individual* tax receipts by $100 billion over the 2009-2018 period. Income shifting also affects the Obama plan by raising corporate tax receipts at the expense of individual tax receipts, as discussed in a later section.

Unbelievable "Distribution Tables"

In the case of tax rates on individual and partnership income, the elasticity of taxable income clearly limits the *feasibility* of redistributing income through the tax system. Because high-income taxpayers react to higher tax rates by reducing their taxable income, a nominally more "progressive" tax regime does not necessarily reduce actual (as opposed to *reported*) income among those with high incomes. Moreover, taxes left unpaid on income left unearned or unreported cannot provide additional revenues for transfer payments to those earning less than $75,000.

High-income taxpayers do face a "deadweight loss" from higher tax rates. Higher tax rates on capital gains may induce investors to be locked into less desirable investments; higher tax rates on dividends may drive some from dividend-paying stocks into tax-exempt bonds. But because such responses *reduce the amount of income subjected to the higher tax rates*, any intended "redistribution" can be thwarted at both the taxpaying and transfer-receiving end by

taxable income elasticity.[16] In that case, the higher tax rates yield little or no additional revenue with which to finance, say, refundable tax credits.

Static revenue estimates clearly confound the Tax Policy Center's distribution tables as well their revenue estimates because, as we have seen, there is ample evidence of very high elasticity of reported *corporate* income with respect to the corporate tax rate. If a 35% tax rate is ineffective in raising more revenue than a 25% tax rate, how could it possibly be more effective in altering the distribution of income? How could those with high incomes be said to benefit disproportionately from a lower corporate tax rate if the lower tax rate yields just as much revenue? Isn't a lower tax on business good for business? Isn't greater prosperity among businesses conducive to more and better employment opportunities?

In the case of the *corporate* tax, however, the Tax Policy Center's estimates of the distributional impact of McCain's lower corporate tax suffer far more serious *technical problems* than simply assuming zero impact on tax avoidance or economic growth.

The Tax Policy Center "follows the Congressional Budget Office (CBO) by assuming that the corporate income tax is fully borne by all capital. Thus, we distribute corporate tax changes to individual households based on their share of capital income (interest, dividends, capital gains, and rents). Because the distribution of capital income is highly concentrated at the top of the income scale, [increasing] the corporate tax is highly progressive."

This method of estimating the incidence of the corporate tax is the reason the TPC claims McCain's plan to cut the corporate tax would mainly benefit the top 1%, while Obama's plan to

[16] Attempts to take money from those who earned it and give it to those who did not earn it tend to discourage both from maximizing their productive efforts and investments, with adverse *macroeconomic* effects beyond the scope of this paper (Davis and Henrekson, Prescott).

raise effective corporate taxes by eliminating deductions and discriminating against one industry (oil and gas) is said to be "highly progressive."

The Congressional Budget Office does indeed shares this distributional mistake (among others) with the TPC, whose senior economists previously worked at the CBO. The CBO currently adds about two thirds of *corporate taxes* (which were $380.5 billion in the 2007 NIPA accounts) to the before-tax *income* of households of the top 1%. They do that to estimate what share of that tax is borne by the top 1%. It is worth noting that this practice of adding most corporate taxes to top incomes makes *before-tax* CBO figures (cited by Bordoff, Furman and Summers) a particularly untenable way to measure changes in the incomes of the top 1%. The more taxes corporations pay, the richer the top 1% appear to be in CBO's before-tax calculations.

Citing a 1962 paper by Arnold Harberger, CBO economists reason that the corporate tax is "fully borne" by owners of capital in general. Today, however, Harberger (2008) regards that as "somewhere in the middle of the plausible range of outcomes."

Auerbach notes that, "For taxes on capital income, in general, we would expect an increase in the effective tax rate on new saving and investment to reduce capital accumulation. The resulting decline in the capital-labor ratio would increase before-tax returns to capital and lead to a fall in wages, thus partially shifting the tax burden from capital to labor."

CBO economist William Randolph estimates that, "domestic labor bears slightly more than 70 percent of the burden of the corporate income tax. The domestic owners of capital [not just owners of *taxable* non-housing capital] bear slightly more than 30 percent of the burden."

If Auerbach and Randolph are correct about labor bearing a significant share of the corporate tax that *completely undoes the TPC conclusion that McCain's tax plan favors the rich*. It also undoes any notion that Obama's increased business taxes ("unverifiable revenue raisers") would hurt *only* the rich.

Even if the TPC and CBO arbitrarily decided to allocate the entire corporate tax burden to U.S. owners of real and financial capital that is *not* what they do. What they do is to allocate the corporate tax burden on the basis of only *taxable* capital gains, *taxable* interest income, dividends and rents —*the dwindling fraction of investment returns that still shows up on individual tax returns*. This is entirely indefensible even as a matter of theory (Auerbach).

The practical problem with the CBO-TPC methodology is that ever since the late 1970s increasing millions of middle-income taxpayers have been stashing away increasing trillions of their savings in tax-free savings plans for retirement and college, or in nearly-tax free (since 1997) housing. Even when these plans are tax-deferred rather than totally tax-free (such as Roth IRA or 529 plan), their investment returns will eventually show up as ordinary income in old age but will *never* appear as capital gains or dividends in the tax data the TCB and CBO are misusing to allocate the corporate tax by income.

High-income taxpayers, by contrast, are prohibited from taking advantage of many of these plans and access to others is strictly limited. As a result, these tax-free savings vehicles are a large and growing share of middle-income savings but a very small and stable share of the assets of the top 1% (Kennickell). And that, in turn, is the main explanation for why the CBO's

estimated share of corporate taxes added to top 1% incomes rose from 34% in 1979 to 66.4% in 2004.

The top 1% could not possibly have received 66.4% of the nation's investment returns in 2004. Their share of wealth was 33.2% that year according to the Survey of Consumer Finances (down from 34.7% in 1995) and that share never changes much (Bucks *et.al*.). The top 1% share of wealth has been closer to 21% for many years according to Kopczuk and Saez, and falling. No study finds any upward trend in wealth inequality, so for the CBO and TPC to assign 66.4% of capital income to the top 1% is literally unbelievable. The only reason the top 1% accounts for a rising share of *taxable* savings is that a rapidly increasing share of everyone else's savings is now sheltered in tax-free retirement and college savings plans.

Because the Tax Policy Center uses the CBO's erroneous method to estimate how the corporate tax is distributed, they must estimate that top 1% would receive two thirds of the benefit from Senator McCain's proposal to cut the corporate income tax. Such estimates are fundamentally flawed and not remotely credible. Yet reporters and editorial writers (even "factcheck.org") continue to treat TPC *estimates* as if they were established facts, beyond dispute.

Income Shifting

Taxpayers can easily respond to changing tax rates by altering the way income is or is not reported in various categories or tax forms. Public corporations may choose to distribute earnings as dividends or to buy back shares to produce capital gains for stockholders. Investors may choose to reallocate their investments between taxable and nontaxable (or tax-deferred)

accounts, between taxable and nontaxable interest, and between investments paying dividends and those paying only capital gains. Executives and middle managers may negotiate to be compensated with tax-favored perks, or with stock and stock options taxed at a reduced capital gains tax rate, or with nonqualified stock options taxed as salary.

The most obvious form of income shifting is that U.S. businesses are free to choose whether to file their income under the corporate income tax or under individual tax – as Subchapter-S Corporations, limited liability companies (LLCs) or partnerships. There is widespread agreement that business decisions about whether to report most of their income on individual or corporate tax returns are significantly affected by whether the highest individual tax rate is higher or lower than the corporate tax (Gordon, Reynolds 2006, Scholz, and Scholes).

In the 1970s, the top individual tax rate was much higher than the top corporate tax rates. As a result, Scholes *et.al*. show that "pre-1981 . . . many doctors, lawyers and consultants incorporated to escape the high personal tax rate." After 1981, the top marginal tax rates on individuals came down, narrowing the gap between individual and corporate tax rates. The individual tax was lower than the corporate rate from 1988 to 1992, and the two tax rates became the same after 2003. After the highest individual tax rate fell from 70% to 28% in 1988, many of the corporations converted back to partnerships, LLCs, and Subchapter-S corporations and more new firms chose to organize themselves as such pass-through entities.

Shifting income from the corporate tax to the individual tax created an *illusory* increase in top incomes in studies by the CBO and by Piketty and Saez (Lawrence, Reynolds 2007). Business income was only 11.1% of the reported income of the top 1% in 1986, according to Piketty and Saez, but that fraction nearly doubled in only two years to 21.2% (and jumped again to more than 30% after 2003 when individual and corporate tax rates became the same). The

unusually rapid increase in *reported* top incomes between 1979 and 1988 largely reflects increased incentives to earn more income in taxable cash (rather than perks and deferred compensation) and to report that income on *individual* (rather than corporate) tax returns.

Figure 3 shows that as the gap between the top statutory tax rate on individuals (partnerships) and the top tax rate on corporations narrowed dramatically in 1987-92, business income quickly began to account for a rapidly rising share of the income of the top 1%, as recorded by Piketty and Saez. By contrast, soon after that gap widened (retroactively) in 1993, the business share of top incomes stabilized around 26-27%, then dipped to 24.7% by 2000. In 2001, the top individual income tax declined only slightly but taxpayers planning ahead realized it was scheduled to come down to parity with the corporate rate, and that did happen in 2003. Once again, the business share of top 1% income began to rise—to 26.5% in 2001 and 30.9% in 2005.

Along with the predictable response of reported dividends and capital gains to lower tax rates (**Figures 4 and 5**), the latest surge of *business income* reported on individual tax returns largely explains the highly-publicized increase in IRS-reported income among the top 1%. *Labor income reported on W2 forms accounted for 65.7% of top 1% income in 1986,* according to Piketty and Saez, *but only 53.5% in 2006* (or 48.5% if capital gains are counted as income). Real *labor* income of the top 1% was nearly 9% lower in 2006 than in 2000, so the media attention typically paid to the paychecks of CEOs and celebrities when reporting on top incomes actually misses the real story.[17]

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[17] Within the top 1%, the decline was sharpest for those at the very top. Eissa and Giertz note that, "The share of gross income for the top half of the top centile fell by an annual average of 2.8 percent from 2000 to 2003 and by 5.2 percent for the top one~hundredth of the top centile."

The Tax Policy Center notes that under the McCain plan, "the corporate tax rate would [eventually] be 10 percentage points lower than the top individual rate, which would encourage some high-income individuals to use closely-held corporations as tax shelters, which would reduce the individual income tax base." That is correct, except that it creates the mistaken impression that today's LLCs, partnerships and Subchapter-S corporations are just individuals, or "small" businesses. On the contrary, pass-through entities include most hedge funds, many banks, some very large legal, medical and agricultural firms, and much more.

Merrill finds that by 2004 there was more business income reported under the individual tax than under the corporate tax; *the C-corporations' share of business income fell from 70.6% in 1987 to 48.5% in 2004*.

The TPC analysis neglects the fact that the Obama plan also includes a powerful incentive to *reverse* that post-1986 trend toward pass-through entities, shifting income back into the corporate tax. The top tax on corporate income would remain at 35% under the Obama plan, and the Senator once told *Wall Street Journal* editors he would consider a lower rate. Meanwhile, the Obama tax on partnership income would rise to 40.8%, when the phase-out of deductions and exemptions is added to the 39.6% statutory rate (Boskin), and eventually to 44.8% from an extra Social Security tax on those with high incomes from employment. Because state income taxes would no longer be deductible for those with high incomes, combined federal and state marginal rates would exceed 50% in high-tax states. Very few successful economies still have marginal tax rates even as high as 40% (India's 30% top tax rate is high for Asia; Russia's is 13%).

Under the Obama plan, as with the McCain plan, the tax rate on partnership income would suddenly be much higher than the tax rate on corporate income. As a result, we can confidently predict a very large income shift away from the individual tax toward the lower corporate tax. But that means it is incorrect to assume, as the TPC does, that higher incomes will actually be subject to individual tax rates above 40% under the Obama plan. On the contrary, many of the highest "individual" incomes will once again be subject to the 35% *corporate* rate. More than 30% of top 1% income now comes from business, according to Piketty and Saez, which could easily drop to 15% or less within a couple of years.

In short, the ease of income shifting from the individual to the corporate tax seriously undermines the reliability of TPC revenue and distribution tables for the Obama plan.

A Simple Revenue-Raising Reform

Reducing the corporate tax rate is clearly desirable, but the wide gap between the tax imposed on C-Corporations and S-Corporations under both the McCain and Obama plans would induce a lot of inefficient reshuffling from the individual to the corporate tax form. A simple solution would be to compromise by cutting the corporate rate to 30% in 2009, rather than in 2010-2011 as McCain plans, and also cut the top *individual* tax to 30%. This can easily be done in ways that are more likely to gain than lose revenue over time.

Reynolds (2001) criticized the 2001 tax cut, saying "the primary objective of the $1.35 trillion cut . . . seems to have been to maximize revenue loss rather than to minimize tax distortions and disincentives." Cutting all the top four tax rates accounted for only 31% ($420.6 billion) of that $1.35 trillion estimated 10-year revenue loss, according to the Joint Committee of

Taxation. Reducing the 15% rate to 10% on the first few thousand dollars of income lost more revenue than cutting *all* the tax rates that were high enough to substantially affect incentives.

That nonpartisan analysis applies with far more force to the Obama tax rebate plans, which retain the biggest revenue losers of the Bush plan and add many more.

The expensive Elephant in the room that nobody cares to mention is the new 10% tax bracket, because it is widely and wrongly thought to be something that helps the poor.

Allowing the 10% tax rate to revert to 15% would have almost no effect on marginal incentives and none of the burden would be borne by those with the lowest incomes because the bottom 35% or so pay no federal income tax. Reducing the tax rate from 15% to 10% on the first $16,050 on a joint return in 2008 is worth exactly $802.50 to any family with a *taxable* income *higher* than $16,050, including those earning millions. That's why this gratuitous 2001 tax gimmick loses so much revenue—because every couple in the top 40%, top 10% and top 1% gets an $802.50 tax cut.

The TPC estimates that *allowing the 10% bracket to expire* in 2011 would raise revenues by $47 billion in the first year, with the gains rising to $76.7 billion by 2017. [18] Because there is very little behavioral response to the lowest tax rates, static revenue estimates are unusually credible in this case.

As mentioned before, an effective solution to income shifting would be to cut *both* the corporate rate and top individual tax to 30%. Such a reduction in the corporate tax rate would probably *raise* revenue, for reasons previously discussed. Meanwhile even the static revenue

[18] http://www.taxpolicycenter.org/numbers/Content/PDF/T07-0014.pdf

loss from cutting the top individual rate would be much smaller than the revenue *gained* from letting the inefficient 10% tax bracket expire.

The Tax Policy Center estimates that a maximum tax rate of 30% would involve a static revenue loss of only $22 billion in 2001and $31.2 billion in 2017. [19] Those are static estimates, and a footnote warns that "official estimates from the Joint Committee on Taxation would likely show a somewhat smaller revenue loss." Yet even the static revenues ostensibly lost from trimming the top tax rate to 30% are not even half as large as the genuine revenue to be *gained* from ending the 10% rate.

In other words, returning to a *flatter* tax schedule, with rates ranging from 15% to 30%, would be a *revenue-positive* reform (as were the 15% to 28% rates of 1988-90). Economists can and should debate whether a maximum tax of 30% on individual and corporate income would gain or lose revenue in comparison with other plans, or whether it would be more or less fair. But economists cannot rely on revenue estimates and distribution tables that totally ignore behavioral responses, because that would require abandoning the very foundation of economics—namely, that rational people respond to price incentives in rational and largely predictable ways.

Conclusion

Politicians, reporters and the public are being asked to make critical decisions about tax policy on the basis of revenue estimates and distribution tables that assume little or no behavioral response to changes in the absolute level of tax rates, or to the relative tax rates on business

[19] http://www.taxpolicycenter.org/numbers/Content/PDF/T07-0041.pdf

income reported on individual or corporate tax forms. In some case, notably the way the burden of corporate taxes is being allocated to the top 1%, the results are not just seriously misleading but seriously wrong.

Once well-documented behavioral responses are taken into account, this paper finds no evidence to suggest that McCain's plan of reducing the corporate tax rate to 25% would result in any loss of *corporate* tax receipts even if it were to be put into place immediately, though it would result in some loss of *individual* income tax revenue due to income switching. Income switching also reduces the surprisingly modest revenue that could realistically be expected from raising the top two tax rates, or raising the tax on dividends and capital gains.

The Tax Policy Center estimates that higher tax rates under the Obama plan (relative to the *status quo*) would raise $1.8 trillion over ten years —fully half of which is "unverifiable." This paper suggests that $600 billion would be more realistic, based on behavioral responses estimated in the economic literature and also visibly evident in recent experience (**Figures 1-5**).

The Tax Policy Center estimates that McCain's reduction in the corporate tax rate would reduce static revenues by $735 billion over ten years. This paper finds no evidence from the experience of other countries that reducing the corporate tax rate has ever been followed by *any* significant revenue loss. Losses from a lower estate tax rate are likewise apt to be smaller than the TPC estimates, once the impact of aggressive estate planning in reducing *individual* income taxes is properly taken into account.

There is a serious fiscal risk in the future that *overly-optimistic revenue estimates* based on the assumption of zero or 0.25 elasticity of taxable income could lead the federal government to make long-term spending plans on the basis of *phantom revenues* from higher tax rates,

embarking on major new entitlement programs (in the guise of refundable tax credits) in the false hope that these static or nearly-static revenue estimates are realistic.

Prudent taxpayers should remain skeptical about any long-term revenue estimates promising a huge bundle of money just waiting to be easily collected from someone other than themselves.

REFERENCES

Auerbach, Alan J., and Jonathan M. Siegel, “Capital-Gains Realizations of the Rich and Sophisticated.” *American Economic Review* 90 (2), May 200

Auerbach, Alan J. 2005. “Who Bears the Corporate Tax? A Review of What We Know,” NBER Working Paper 1186. http://www.nber.org/papers/w11686

Auten, Gerald and Joulfaian, David. 2004. “Taxes and Capital Gains Realizations: Evidence from a Long Panel” presented at the Allied Social Science Association Meetings, January 5, 2004. http://www.aeaweb.org/annual_mtg_papers/2005/0109_0800_1204.pdf

Avi-Yonah, Reuven S. and Clausing, Kimberly A. 2007. “Reforming Corporate Taxation in a Global Economy: A Proposal to Adopt Formulary Apportionment,” Brookings Institution Hamilton Project Discussion Paper 2007-08, June. http://www.brookings.edu/papers/2007/06corporatetaxes_clausing.aspx

Bernheim, Douglas. 1987. "Does the Estate Tax Raise Revenue?" *Tax Policy and the Economy*, Vol. 1. Cambridge, MA: MIT Press. http://www.nber.org/papers/w2087

Bordoff, Jason, Furman, Jason and Summers, Lawrence. 2007. “Achieving Progressive Tax Reform in an Increasingly Global Economy,” Hamilton Project Strategy Paper, The Brookings Institution, June. http://www.brookings.edu/papers/2007/06globalization_furman.aspx

Brill, Alex and Viard, Alan D. 2008. “The Folly of Obama’s Tax Plan,” *The American*, August 8.http://www.american.com/archive/2008/august-08-08/the-folly-of-obama2019s-tax-plan

Boskin, Michael J. 2008. “Obamanomics Is a Recipe for Recession,” *The Wall Street Journal*, July 29.

Burman, Leonard B; Gale, William G. and Rohaly, Jeffery. 2005. “Options to Reform the Estate Tax,” Tax Policy Center, *Tax Policy Issues and Options*, No. 10, March. http://www.taxpolicycenter.org/UploadedPDF/311153_IssuesOptions_10.pdf

Bucks, B.K., Kennickell, A.B., Moore, K.B. 2006. “Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances,” *Federal Reserve Bulletin*.

Bradford, David F. 1995. *Distributional Analysis of Tax Policy*, D.C., AEI Press.

Browning, Edgar K. 2008. *Stealing from Each Other*, N.Y., Praeger.

Carroll, Robert and Hrung, Warren W. 2005. “What Does the Taxable Income Elasticity Say About Dynamic Responses to Tax Changes?” *The American Economic Review*, 95(2) May.

Carroll, Robert. 2008. “Comparing International Corporate Tax Rates,” Tax Foundation Fiscal Fact, No. 143, August. http://www.taxfoundation.org/files/ff143.pdf

Chetty, Raj and Saez, Emmanuel. 2006. "The Effect of the 2003 Dividend Tax Cut on Corporate Behavior: Interpreting the Evidence" *American Economic Review, Papers and Proceedings*, 96(2), May.

Committee for a Responsible Budget. 2008. “Promises, Promises: A Fiscal Voter Guide to the 2008 Election,” August 29. http://www.usbudgetwatch.org/files/crfb/USBW%20Voter%20Guide%20October%205%202008.pdf

Congressional Budget Office (CBO) 2005. “Effects of the Federal Estate Tax on Farms and Small Businesses,” July. http://www.cbo.gov/ftpdocs/65xx/doc6512/07-06-EstateTax.pdf

Congressional Budget Office. 2008. “Sources of the Growth and Decline in Individual Income Tax Revenues Since 1994,” May.

Davis, Steven J. and Henrekson, Magnus. 2004. “Tax effects on work activity, industry mix and shadow economy size: evidence from rich country comparisons,” NBER Working Paper No. 10509, May. http://www.nber.org/papers/w10509

Diamond, John W. 2004. “Should the Bush Tax Cuts of 2001 and 2003 Be Permanently Extended?” James A. Baker III Institute for Public Policy, Rice University, June. http://www.bakerinstitute.org/publications/wp_taxpolicy.pdf

Edwards, Chris. 2007. “Corporate Tax Laffer Curve,” Cato Institute *Tax and Budget Bulletin* No. 49, November. http://www.cato.org/pubs/tbb/tbb_1107_49.pdf

Eissa, Nada O. and Giertz, Seth H. 2006. “Trends in High Incomes and Behavioral Responses to Taxation: Evidence from Executive Compensation and Statistics of Income Data” CBO Working Paper 2006-14, December.

Feldstein, Martin. 1995. “Behavioral Responses to Tax Rates: Evidence from the Tax Reform Act of 1986,” *The American Economic Review*, May.

Feldstein, Martin, 2008. “Effects of Taxes on Economic Behavior,” *National Tax Journal*, Vol. LXI, No. 4, March.

Ferrara, Peter, 2008. “Obama’s Tax Plan is Really a Welfare Plan,” *The Wall Street Journal*, August 19.

Fox, Justin. 2006. "How much do corporate taxes actually bring in around the world?" June 27. http://time-blog.com/curious_capitalist/2007/06/how_much_do_corporate_taxes_ac.html

Furman, Jason and Goolsbee, Austan. 2008. "The Obama Tax Plan," *The Wall Street Journal*, August 14. See also "Barack Obama's Comprehensive Tax Plan," http://www.barackobama.com/pdf/taxes/Factsheet_Tax_Plan_FINAL.pdf

Giertz, Seth H. 2004. "Recent Literature on Taxable-Income Elasticities," Congressional Budget Office Technical Paper 2004-16, December.

Giertz, Seth H. 2007. "The Elasticity of Taxable Income over the 1980s and 1990s," *National Tax Journal* Vol. LX, No. 4, December.

Gordon, Roger. 2003. "Comment on Saez, E., "Income and Wealth Concentration in a Historical and International Perspective" Berkeley Symposium on Poverty, The Distribution of Income and Public Policy, December 12-13. http://urbanpolicy.berkeley.edu/pdf/Ch5CommGordononSaez.pdf

Harberger, Arnold C. 2008. "The Incidence of the Corporation Income Tax Revisited," *National Tax Journal*, Vol. LXI, No. 2, June.

Henderson, David R. 2008. Economic Inequality: Facts, Theory and Significance," National Center for Policy Analysis Report No. 312, June. http://www.ncpa.org/pub/st/st312

House, Christopher L. and Shapiro, Matthew D. 2006. "Phased-In Tax Cuts and Economic Activity," American Economic Review 96, December.

Hubbard, Glenn. 2002. "Capital Income Taxation in Tax Reform: Implications for Analysis of Distribution and Efficiency." in *United States Tax Reform in the 21st Century* eds. George R. Zodrow and Peter Mieszkowski. Cambridge, UK: Cambridge University Press.

Joint Committee on Taxation, *Estimates of Federal Tax Expenditures 2007-2011*, Table 2. http://www.house.gov/jct/s-3-07.pdf

Kennickell, A.G. 2003. "A Rolling Tide: Changes in the Distribution of Wealth in the U.S., 1979-2001" September. http://www.federalreserve.gov/pubs/oss/oss2/papers/concentration.2001.10.pdf

Kopczuk, Wojciech and Saez, Emmanuel. 2004. "Top Wealth Shares in the United States, 1916-2000: Evidence from Estate Tax Returns," *National Tax Journal* Vol. LVII, No. 2, Part 2 June.

KPMG, *Corporate and Indirect Tax Rate Survey*, 2007 and 2008. http://www.kpmg.com/SiteCollectionDocuments/Corporate-Tax-Rates-Survey-2008b.pdf

Kuznets, Simon. 1953. *Shares of Upper Income Groups in Income and Savings*, NY, NBER.

Liang, N. and Weisbenner, S. 2001. "Who Benefits from a Bull Market? An Analysis of Employee Stock Option Grants and Stock Prices," FEDS Working Paper No 2001-57, November,

Slemrod, Joel and Gordon, Roger H. 1998. "Are 'Real' Responses to Taxes Simply Income Shifting Between Corporate and Personal Tax Bases?" NBER Working Paper No. 6576, May 1998 http://www.nber.org/papers/w6576

Laffer, Arthur B. and Moore, Stephen. 2008. "New Evidence on Taxes and Income," *The Wall Street Journal*, September 15.

Lawrence, Robert Z. 2008. "Blue Collar Blues: Is Trade to Blame for Rising U.S. Income Inequality?" D.C., Peterson Institute for International Economics, pp. 22-23.

Looney, Adam and Singhal, Monica, "The Effect of Anticipated Tax Changes on Intertemporal Labor Supply and the Realization of Taxable Income," Federal Reserve Board working paper 2005-44. http://www.federalreserve.gov/pubs/feds/2005/200544/200544pap.pdf

Lorenz, Max O. 1905. "Methods of Measuring the Concentration of Wealth," *American Statistical Association* No. 70, June.

Mallaby, Sebastian. 2008. "McCain's Convenient Truth," *The Washington Post*, September 8, 2008.

Merrill, Peter R. 2007. "The Corporate Tax Conundrum," *Tax Notes*, October 8. http://www.pwc.com/extweb/pwcpublications.nsf/docid/d31f8befffa40ab685257371003e1b99/$file/corporate_tax_conundrum.pdf

National Taxpayers Union Foundation. 2008. Democratic Presidential Candidate Spending Analysis: Barack Obama. September 25. http://www.ntu.org/pdf/P080925_ObamaAgendaCostUpdate.pdf

OECD Policy Brief. 2001. "Economic Survey of the United States, 2001," OECD Observer, November.

Prescott, Edward C. 2004. "Why Do Americans Work So Much More Than Europeans?" Federal Reserve Bank of Minneapolis *Quarterly Review*, Vol. 28, No. 1, July, pp. 2–13

Pechman, Joseph A. and Okner, Benjamin A. 1974. *Who Bears the Tax Burden?* D.C., Brookings Institution.

Piketty, Thomas and Saez, Emmanuel. 2003. "Income Inequality in the United States, 1913-1998" Quarterly *Journal of Economics*, 118(1), 2003, 1-39. See "Tables and Figures updates to 2006" in Excel (particularly Table A7) at http://elsa.berkeley.edu/~saez/

Randolph, William C. 2006. "International Burdens of the Corporate Income Tax," CBO Working Paper 2006-09, August. http://www.cbo.gov/ftpdocs/75xx/doc7503/2006-09.pdf

Reynolds, Alan. 1999. "Capital Gains Tax: Analysis of Reform Options for Australia," A study commissioned by the Australian Stock Exchange Ltd for the Review of Business Taxation, July. http://www.asx.com.au/about/pdf/cgt.pdf

Reynolds, Alan. 2001. "Tax Cut 2001: A Little Bang for a lot of Buck," *The Wall Street Journal*, May 30. http://www.cato.org/pub_display.php?pub_id=4282

Reynolds, Alan. 2003. "Economic Confusion at CBO?" *The Washington Times*, April 6. http://www.cato.org/pub_display.php?pub_id=3058

Reynolds, Alan. 2004. "The "Conventional" Hypothesis: Deficit Estimates, Savings Rates, Twin Deficits and Yield Curves," U.S. Treasury Department, February 12. http://www.treas.gov/offices/economic-policy/round_table_documents/2004/reynolds.pdf

Reynolds, Alan. 2006. *Income and Wealth*, Greenwood Press, Ch. 5.

Reynolds, Alan. 2007. "The Truth About the Top 1%," *The Wall Street Journal*, October 25. http://online.wsj.com/article/SB119327553557070785.html

Scholes, Myron, et. al. 2002. "Choosing the Optimal Organizational Form," in *Taxes and Business Strategy*, Prentice Hall, Ch. 4.

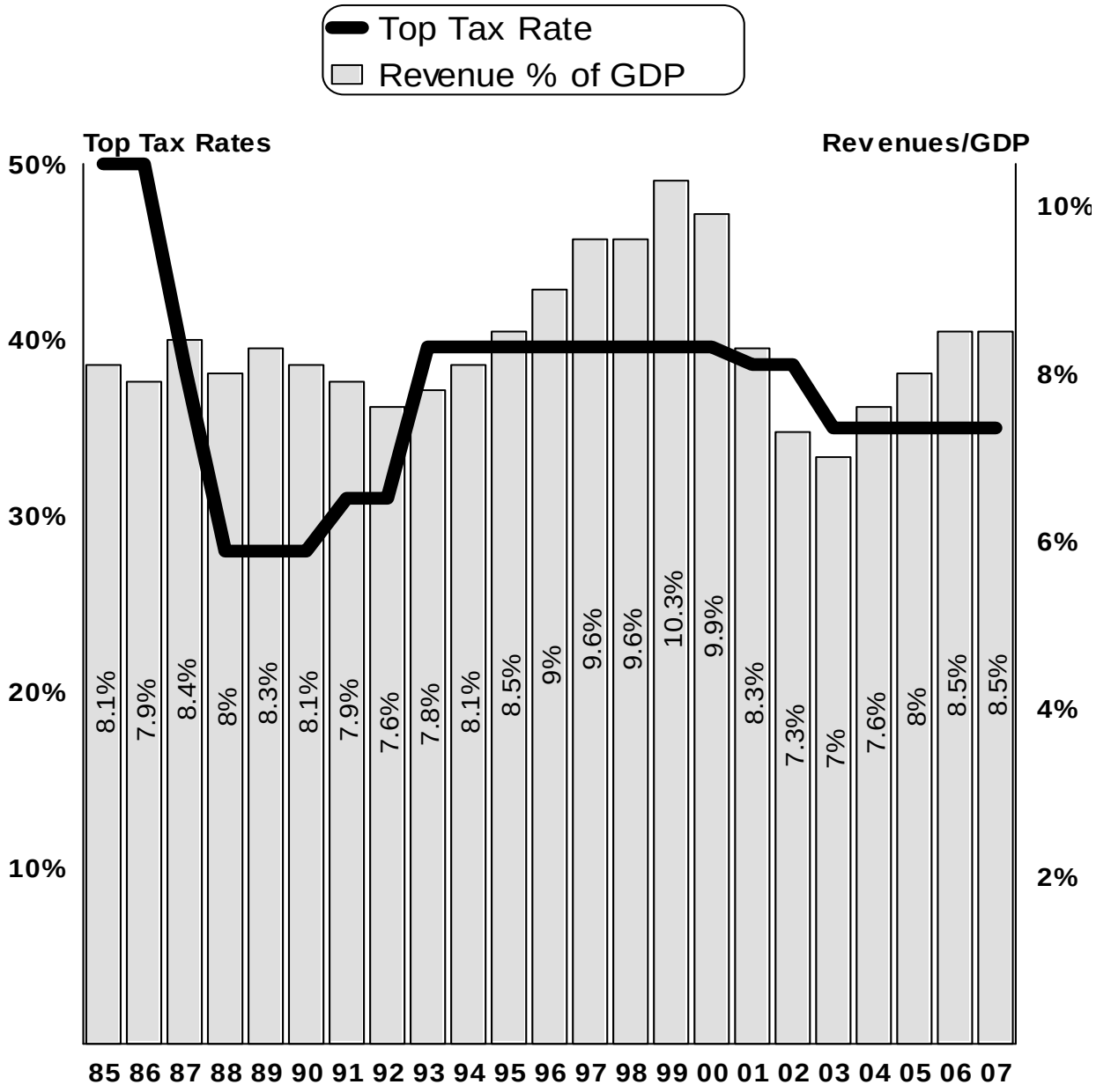
Scholz, John K. 2003. "Comment on Saez, E., "Income and Wealth Concentration in a Historical and International Perspective" Berkeley Symposium on Poverty, The Distribution of Income and Public Policy, December 12-13. http://urbanpolicy.berkeley.edu/smolensky.htm

Stiglitz, Joseph. 1978. "Notes on the Estate Tax," *Journal of Political Economy*, April.

Tax Policy Center. 2008. (Urban Institute and Brookings Institution), "An Updated Analysis of the 2008 Presidential Candidates' Tax Plans," revised August 15.

Figure 1

Top Individual Tax Rate and Individual Tax Revenues as a % of GDP



U.S. Budget Historical Statistics

Figure2

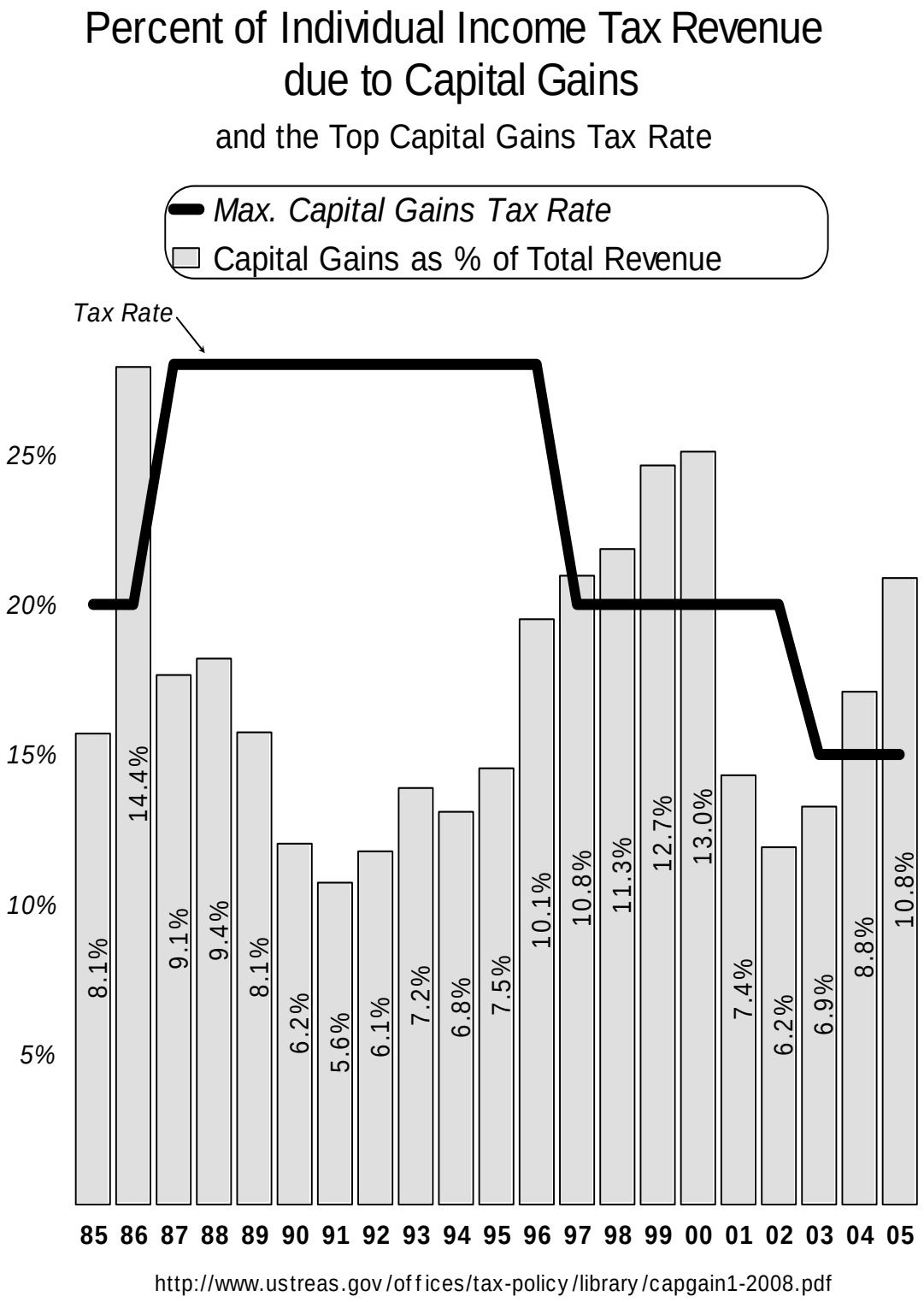


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Figure 3

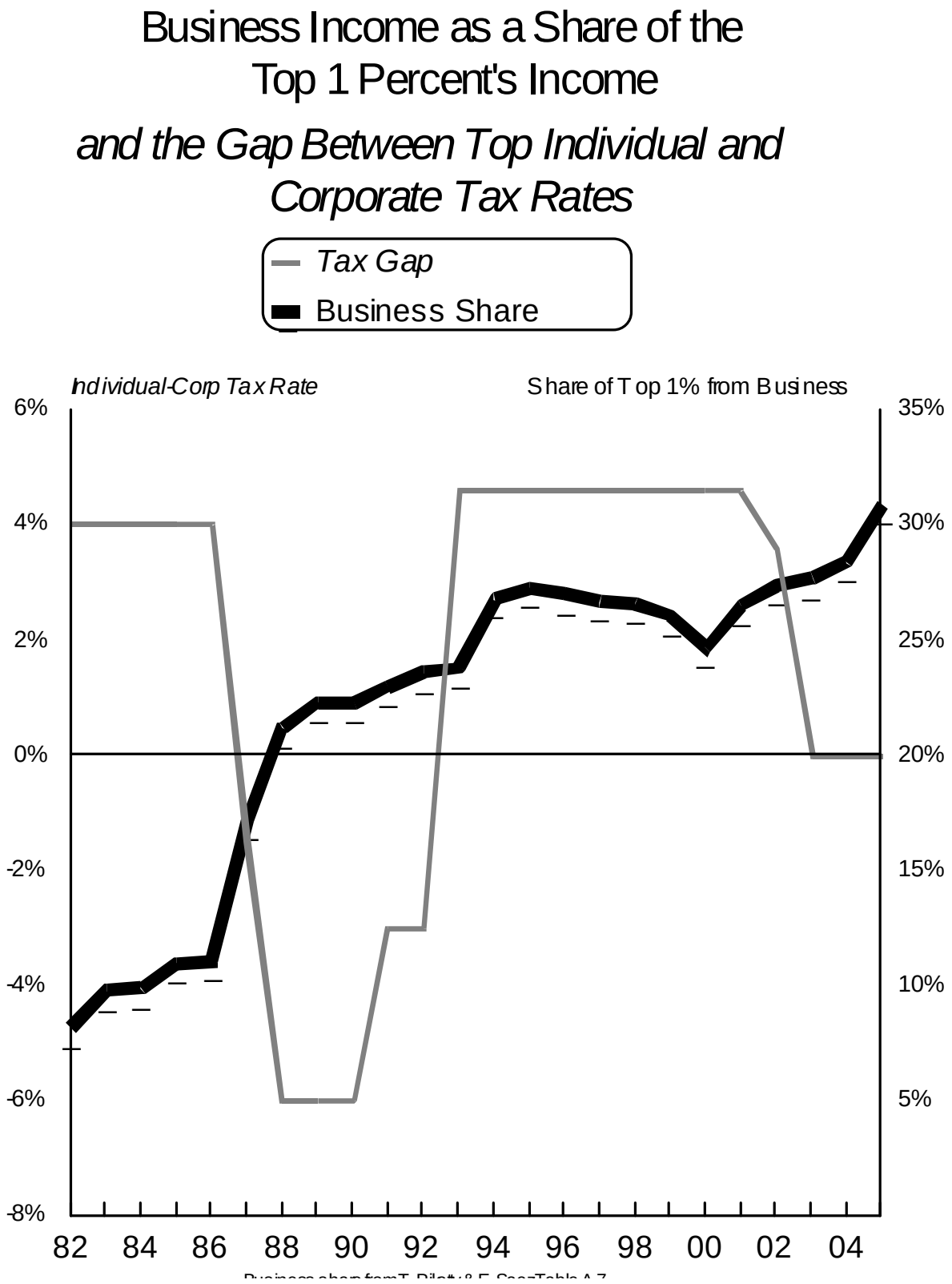
Business Income as a Share of the
Top 1 Percent's Income
and the Gap Between Top Individual and
Corporate Tax Rates
Tax Gap
Business Share
Individual-Corp Tax Rate
Share of Top 1% from Business
6%
4%
2%
0%
-2%
-4%
-6%
-8%
35%
30%
25%
20%
15%
10%
5%
82
84
86
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Figure 4

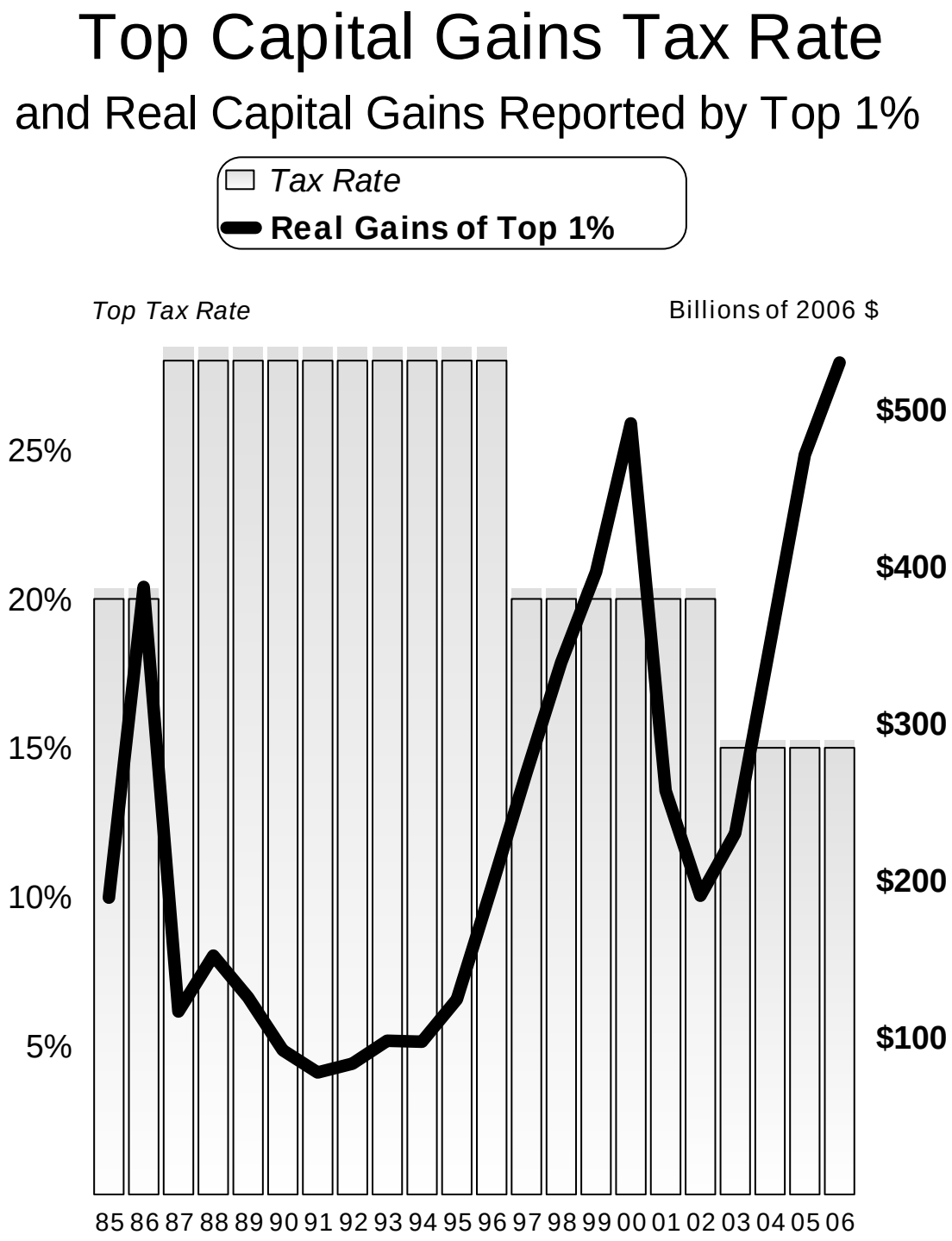
Top Capital Gains Tax Rate
and Real Capital Gains Reported by Top 1%
Tax Rate
Real Gains of Top 1%
Top Tax Rate
Billions of 2006 $
25%
20%
15%
10%
5%
$500
$400
$300
$200
$100
85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06

Figure 5

Top Tax Rate on Dividends

and Real Dividends Reported by Top 1%

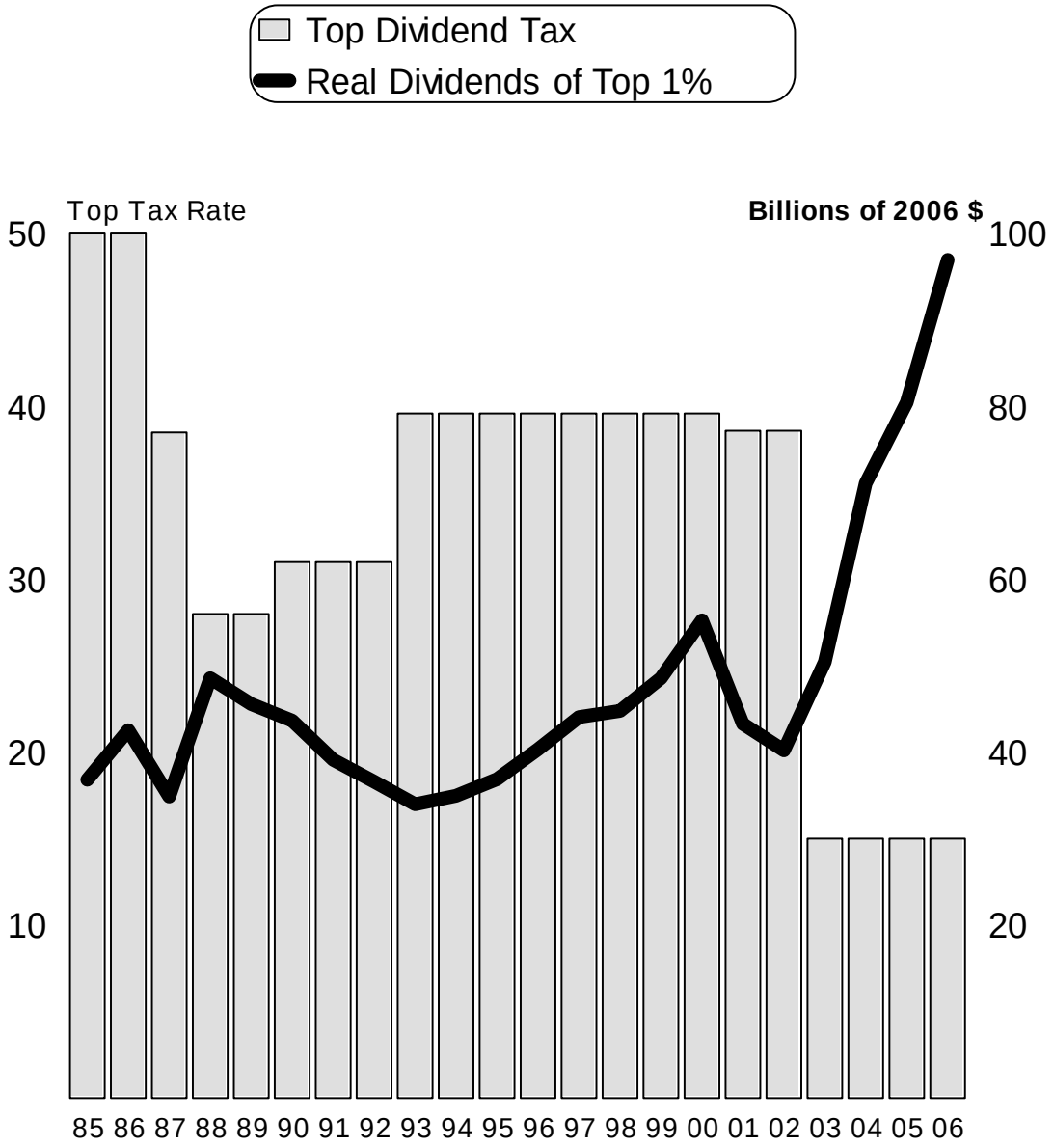

Table 1: Select Tax Policy Center Revenue Estimates 2009-2018
and author's estimates including additional behavioral response.
Change vs. maintaining *current* 2008-2010 tax policy; in $ billions

	TPC estimate: Obama	Reynolds Estimate: Obama	TPC estimate: McCain	Reynolds Estimate: McCain
Revenue Reductions	-1,316.8	-1,216.8	-1,208.1	-477.9
Tax credits/exemptions	-1,316.8	-1,316.8	-177.9	-177.9
Corporate Tax*	0	100.0	-734.7	-200.0
Estate Tax	0	0	-295.5	-100.0
Revenue Increases	1,705.3	515.0	364.8	100.0
Unverifiable Misc.	924.1	300.0	364.8	150.0
Individual income*	781.2	185.0	0	-70.0
Capital gains	117.5	20.0	0	20.0
Dividends	49.3	10.0	0	0
Net Revenue Gain/ Loss	388.5	-701.8	-843.3	-377.9
Addendum (preliminary)				
Health Insurance plan	-1,630.0	NA	-1,311.0	NA

TPC estimates from http://www.taxpolicycenter.org/publications/url.cfm?ID=411749
Note: Table excludes candidates' similar proposals for AMT & R&D tax credit and auction revenue from cap and trade plans. (Revised 10-28-08)

*The *minus* $70 billion Reynolds estimate for individual income tax under the McCain plan consists of $100 billion *shifted* to the corporate tax base (the $200 billion revenue loss shown under corporate tax excludes an additional $100 billion loss within the *individual* income tax because of income shifting) less $30 billion *added* as a result of *reduced avoidance* of the (reduced) estate tax. The $20 billion added to capital gains is from reduced avoidance of McCain's estate tax.

The Reynolds estimate of $100 billion additional *corporate* tax from the Obama plan reflects income shifting of business and professional income from the individual to the corporate tax base. The $185 billion estimate for added individual tax revenue from the Obama plan is half the static 2006 TPC estimate for raising the top two tax rates *plus* $100 billion from the PEP/Pease phase-out of deductions and exemptions (a total of $285 billion) *minus* the $100 billion shifted to the corporate tax.

None of the Reynolds judgmental estimates is intended to be precise, nor should *any* 10-year budget estimates be considered more than rough approximations. See text for further explanation.

Table 2: Real Capital Gains and Dividends Reported by Top 1% and Maximum Tax Rates on Capital Gains and Dividends
(Note: This is Background Data for **Figures 4 and 5**)

	Top Tax Rate on Capital Gains %	Reported Capital Gains of Top 1% (thousands of 2006$)	Top Tax Rate on Dividends %	Reported Dividends of Top 1% (thousands of 2006$)
1985	20.0	189,059	50.0	36,825
1986	20.0	386,975	50.0	42,566
1987	28.0	116,494	38.5	34,878
1988	28.0	152,184	28.0	48,577
1989	28.0	125,510	28.0	45,577
1990	28.0	91,872	31.0	43,679
1991	28.0	77,757	31.0	39,131
1992	28.0	83,339	31.0	36,619
1993	28.0	97,907	39.6	33,992
1994	28.0	97,269	39.6	34,977
1995	28.0	124,286	39.6	36,898
1996	28.0	195,546	39.6	40,358
1997	20.0	268,420	39.6	44,075
1998	20.0	338,807	39.6	44,784
1999	20.0	396,519	39.6	48,581
2000	20.0	491,103	39.6	55,272
2001	20.0	257,158	38.6	43,294
2002	20.0	190,264	38.6	40,224
2003	15.0	230,010	15.0	50,447
2004	15.0	349,794	15.0	71,101
2005	15.0	470,992	15.0	80,465
2006	15.0	529,827	15.0	96,951

Adapted from T. Piketty and E. Saez "tables and figures updated"
http://elsa.berkeley.edu/~saez/

Table 3: OECD Countries with Corporate Tax Rates of 25% or less

	Top Tax Rate %	Revenue / GDP (2005)
Austria	25.0	2.3
Denmark	25.0	3.6
Czech Republic	24.0	4.6
Switzerland	21.3	2.5
Turkey	20.0	2.3
Slovak Republic	19.0	2.4
Iceland	18.0	2.4
Ireland	12.5	3.4

http://time-blog.com/curious_capitalist/2007/06/how_much_do_corporate_taxes_ac.html
Tax rates from the Tax Foundation.

Table 4: Estimated Revenue Loss from Obama Tax Credits
($billions, rounded)

	2012	2009-18
Making Work Pay	-70	-710
Mortgage Credit	-13	-126
Saver's credit	-20	-203
American Opportunity Tax Credit	-14	-139
Expanded earned income tax credit	-5	-46
Expand child care tax credit	-3	-23
Exempt seniors under $50,000	-7	-70
Total	-131	-1,317

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