Abstract - The federal tax code contains many features that distort signals for efficiently allocating investment. We evaluate how well five recent proposals would improve those signals by increasing uniformity of effective tax rates among asset types, between debt and equity financing, between corporate and noncorporate businesses, and between owner–occupied and tenant–occupied housing. We find that three proposals—permanent extension of provisions enacted in 2001 and 2003, permanent extension of partial expensing enacted in 2002, and enactment of the President’s proposed lifetime savings accounts—would reduce some distortions but aggravate others. Two other proposals—partial integration and a capped credit for mortgage interest—would reduce some distortions without aggravating others.

INTRODUCTION

In a competitive economy, rates of return on investments direct profit–maximizing savers to invest in projects with the highest social return. Output is maximized when marginal rates of return are equalized across all investment alternatives.

Taxes introduce a wedge between the return earned by an investment and the return received by savers. In the presence of taxes, profit–maximizing savers will allocate their savings to earn the highest after–tax return, and their return is maximized when after–tax returns are equated on all investments. As long as taxes reduce rates of return on all investments equally, savings are still allocated efficiently—that is, to maximize output.1 To the extent taxes reduce returns unequally, savings will be allocated inefficiently, so that output is not maximized.

The current tax system is far from uniform in its taxation of investment returns. Taxes that are neutral with respect to investment exist in theory, however, as “pure” income, consumption, or wage taxes. The first taxes all returns at an equal positive rate; the second and third do not tax marginal returns at all. Enacting one of the pure systems appears to require steps that are politically infeasible. Partial steps to increase

---

1 Taxes on capital income also distort the return to consuming in the future relative to the present, which may lead to too much consumption currently and too little later.
uniformity may be the most reform that can be enacted.

In this paper, we investigate five actual proposals that have been made since 2001 that fall short of fundamental reform, but that would increase uniformity for at least some aspect of the tax on capital income. Our base case is the law in place prior to 2001 (which—except for provisions covered by the Pension Protection Act of 2006—would be restored in 2011 in the absence of further Congressional action). The five proposals are as follows:

1. Extend the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) indefinitely;
2. Allow 30 percent expensing of equipment, per the Job Creation and Worker Assistance Act of 2002 (JCWAA);
3. Allow $5,000 annual contributions to lifetime savings accounts (LSAs), per the President’s 2007 Budget;
4. Partially integrate the individual–level and corporate–level taxes, per the President’s 2004 Budget; and
5. Convert the mortgage interest deduction to a credit, per the November 2005 report of the President’s Advisory Panel on Federal Tax Reform.

Our goal is to determine whether those partial reforms really would increase the uniformity with which capital income is taxed and, therefore, improve the signals for efficient allocation of saving among alternative investments.

We use the methodology of effective tax rates to evaluate the potential distorting effect of taxes on economic activity. An effective tax rate combines statutory tax rates with other features of the tax code into a single tax rate that applies to the real rate of return over the life of an investment.

Under pre–EGTRRA law, effective tax rates vary by form of organization, method of financing, asset type and, in the case of housing, the tenure of the occupant. To gauge the potential efficiency effects related to the disparate treatment of different kinds of investment, we computed effective tax rates and measures of tax rate uniformity across those various dimensions. For most of the categories, the uniformity measure is simply the difference between the rates being compared. In the case of different types of corporate assets (there are 49), the measure is an interquartile range. For all measures of uniformity, higher absolute values signal less uniformity; a score of zero indicates complete uniformity.

Not all differences in effective tax rates necessarily contribute to the misallocation of saving among investment alternatives. Nonetheless, in our paper we only introduce features of the tax code and economy that we believe are likely to lead to distorting signals for the allocation of investment

---

2 For further policy analyses using the same model, see U.S. Congressional Budget Office (2005b).
3 When many differences in effective tax rates exist among investment alternatives, eliminating a few can worsen the overall allocation of investment, as pointed out by the theory of the second best. Nonetheless, economists have generally found that efficiency is increased by substantially reducing differences in tax rates along the dimensions identified here. See for example, Gravelle (1994 pp, 76–90) and Fullerton, Henderson, and Mackie (1987 pp, 173–203).

A second reason that not all differences in effective tax rates signal distortions in the allocation of investment is that some only affect returns among savers, not investment alternatives. In a small open economy, for example, the required return that businesses must pay savers is set by world capital markets, so uneven taxation of returns received by savers in that country will not affect the returns businesses must earn on investments. Even in a closed economy, uneven taxation of individuals need not distort the signals for investment if marginal savers are taxed uniformly.
Distortions from Partial Tax Reform Revealed through Effective Tax Rates

in a closed version of the U.S. economy. As disagreement exists about which features are distorting, we introduce alternative assumptions about two areas of uncertainty: the taxation of dividends, and the use of nontaxable accounts (primarily for retirement saving). Although we consider differences in assumptions, we always interpret differences in effective tax rates as evidence of distorted signals for investment.

METHODOLOGY

**Defining Effective Tax Rates**

Statutory tax rates apply to taxable income in a given year; effective tax rates summarize in a single rate provisions of the tax code that apply to economic income over the entire life of an investment. Specifically, an effective tax rate is a constant rate that, if applied to the return on an investment over its lifetime, would yield the same after–tax rate of return as applying statutory rates to taxable income according to the law.

Effective tax rates are computed for a marginal investment. That is, the cost of the investment is expected to just equal the present value of the return that the business would have to distribute to its investors, after paying the taxes that would be due on the profits. The sources of saving are marginal as well. Thus, the tax rates that apply to them can differ from those paid on existing saving. Consider an individual who has saved up to the limit in his or her retirement savings account. The investment earnings within the account are not taxable, but if the individual saved an additional dollar, it could not be deposited into that account, so the investment returns on that dollar would be taxed.

**Calculating Effective Tax Rates**

As noted above, taxes create a wedge between the rate of return an investment earns before tax and the rate of return savers end up with after tax. An effective tax rate (ETR) is computed as the tax wedge relative to the before–tax return, or:

\[ ETR = \frac{\rho - s}{\rho}. \]

In the equation, \( \rho \) is the real before–tax rate of return and \( s \) is the real after–tax rate of return. The details behind the calculation of those two variables differ for C corporations, noncorporate businesses, and homeowners.\(^4\)

**C Corporations**

The real before–tax rate of return a corporation must expect to earn on a marginal investment can be expressed as:

\[ \rho_c = \frac{r - \pi + \delta}{1 - u} (1 - uz) - \delta, \]

where

\( r \) is the nominal cost of funds to the corporation (and its discount rate),
\( \pi \) is the rate of inflation,
\( \delta \) is the rate of economic depreciation,
\( u \) is the corporate tax rate, and
\( z \) is the present value of tax depreciation allowances measured as a share of acquisition cost.

The cost of funds to the corporation is the rate of return it must pay savers for use of their savings, adjusted to reflect the cost to the business. The rate of return is the market interest rate on debt and the expected profit rate on other equity investments. The corporation can deduct interest payments, so the cost of funds can be expressed as:

\[ r = f [i(1 - u) - \pi] + (1 - f)E, \]

\(^4\) For further explanation of the methodology, see U.S. Congressional Budget Office (forthcoming), Gravelle (1994), Mackie (2002), and references cited therein.
where

\[ f \] is the fraction of the investment financed by debt,
\[ i \] is the market interest rate, and
\[ E \] is the real return on equity.

Corporations pay their equity return to savers directly as dividends or indirectly by reinvesting profits in the firm. The reinvested profits should raise the price of the firm’s stock, creating a capital gain for the saver.

The interest, dividends, and capital gains generated by the corporation’s investment are subject to the individual income tax when received by savers, which introduces a second level of tax on corporate profits. The size of the second bite depends on myriad features of the individual income tax; we focus on four:

1. The regular statutory tax rates under the individual income tax;
2. The type of income received: interest income (taxed at regular rates), dividends (currently taxed at lower rates), or capital gains (benefitting from both deferral until realization and lower rates);
3. The type of account through which the saving is supplied: nontaxable (employment–based pension plans, IRAs, and special accounts for education or health), temporarily deferred (nonqualified annuities and whole life insurance), or fully taxable (all other capital income); and
4. Inflation, because taxes are levied on nominal returns.

What is left after the second level of taxation—the real return on corporate investment for the saver—we label \( s_{c,e} \) and express it as:

\[ s_{c,e} = \alpha_{c,e,ft}[i(1-t_{int}) - \pi] + \alpha_{c,e,td} s_{c,e,td} + \alpha_{c,e,nt} E, \]

where

\[ \alpha_{c,e,ft} \] is the share of marginal saving in corporate equity that is held in fully taxable accounts,
\[ t_{int} \] is the marginal statutory tax rate on interest income,
\[ \alpha_{c,e,td} \] is the share of marginal saving in corporate equity that is held in temporarily deferred accounts,
\[ s_{c,e,td} \] is the real after–tax return adjusted for the effects of temporary deferral, and
\[ \alpha_{c,e,nt} \] is the share of marginal saving in corporate equity that is held in nontaxable accounts.

We label the real after–tax return remaining after individual income taxes on corporate equity \( s_{c,e} \) and express it as:

\[ s_{c,e} = \alpha_{c,e,ft}[(1-m)E(1-t_{div}) + g] + \alpha_{c,e,td} s_{c,e,td} + \alpha_{c,e,nt} E, \]

where

\[ \alpha_{c,e,ft} \] is the share of marginal saving in corporate equity that is held in fully taxable accounts,
\[ m \] is the fraction of the return on corporate equity reinvested by the corporation,
\[ t_{div} \] is the marginal statutory tax rate on dividends,
\[ g \] is the real after–tax return on capital gains,
\[ \alpha_{c,e,td} \] is the share of marginal saving in corporate equity that is held in temporarily deferred accounts,
\[ s_{c,e,td} \] is the annualized real return on equity after accounting for the temporary tax deferral, and
\( \alpha_{c,e,m} \) is the share of the marginal saving in corporate equity that is held in nontaxable accounts.\(^5\)

Based on these specifications for the after-tax returns that individuals receive on corporate debt and equity, the average after-tax return \((s_c)\) is specified as:

\[
[6] \quad s_c = fs_{c,d} + (1 - f)s_{c,e}
\]

and the effective tax rate on the return on corporate investments \((ETR_c)\) is computed as:\(^6\)

\[
[7] \quad ETR_c = \frac{\rho_c - s_c}{\rho_c}.
\]

**Noncorporate Businesses**

Investments by noncorporate businesses also need to pay investors competitive rates of return. For debt finance, we use the market interest rate. For equity, we assume that the investor-operator of a noncorporate business will earn on a marginal investment as much after-tax as he or she could earn by buying corporate equity. Given those earnings requirements and the tax law, the rate of return required before tax to just break even can be computed in a parallel fashion to the before-tax rate of return on a marginal investment in the corporate sector \((\rho_c)\). No tax is imposed directly on the noncorporate business, but profits (net of interest expenses) are subject to the individual income tax.

The real after-tax return received on marginal savings invested in noncorporate businesses is represented similarly to \(s_c\) in equation [6], except that the share financed by debt is lower than \(f\). The component of that return financed by debt is expressed similarly to \(s_{c,d}\) in equation [4]; however, the values of the shares of debt held in fully taxable, temporarily deferred, and nontaxable accounts are different. Loans to noncorporate businesses are typically mortgages and bank loans rather than bond sales, and such funds are less likely to be held by the lenders in nontaxable accounts than are corporate bonds. The real after-tax return on equity supplied to noncorporate businesses is fully taxable and, as stated above, is set to the real after-tax return that savers receive on corporate equity \((s_{c,e})\). Although the values for \(\rho\) and \(s\) are different for noncorporate investments than for corporate investments, the formulas for calculating the tax wedge and effective tax rate are the same.

**Owner–Occupied Housing**

A homeowner making a marginal investment in his or her house also has to pay the required return to savers (himself or herself, to the extent that the investment is equity-financed). The market interest rate determines the cost of debt financing. As for equity financing, we assume that owners want to earn the same after-tax return as they do on their other investments \((s_{c,e})\). One difference in computing the required pre-tax rate of return is that equity earnings from owner-occupied housing are not taxable, and no depreciation deductions are allowed. Another difference is that interest is deductible only for taxpayers who itemize. A third difference is that federal income taxes are reduced to the extent property taxes are deductible.

The real after-tax return received by savers is the same as that for noncorporate businesses, with the exception that the shares of mortgage lending coming from fully taxable, temporarily deferred, and nontaxable accounts differ from those for noncorporate businesses. Debt instru-

---

\(^5\) Under the new view of dividend payments, \(m\) is the fraction of new investment funded through retained earnings. For more details behind the calculations of \(s_{c,d}, g, \) and \(s_{c,e,d}\) see U.S. Congressional Budget Office (forthcoming).

\(^6\) Some studies reserve the term “effective tax rate” or ETR for a calculation that excludes the individual level tax. When including the individual level tax, they use the term “effective total tax rate” or ETTR.
ments that securitize home mortgages are more likely to be held in nontaxable accounts than are loans to noncorporate businesses.

Given the before– and after–tax returns for investment in owner–occupied housing, the effective tax rate is computed the same as for businesses. The rate tends to be near zero or negative, however, because the equity return is not taxed, interest expenses and property taxes are deducted by owners who itemize, and savers hold some mortgage loans in nontaxable accounts.

Limitations of the Effective Tax Rate Framework

The effective tax rate framework necessarily omits many features of the tax code that affect the investment decision. One limitation of our version (and many others) is that it assumes all that savers and investors are subject to the U.S. income tax. The simplification of a closed economy provides useful insights because the U.S. economy is so large that most savings invested in the U.S. originate with U.S. residents. The growing globalization of businesses and capital flows, however, is lessening the applicability of the effective tax rate framework over time.7

The effective tax rate framework simplifies further by omitting estate and gift taxes, self–employment contributions to Social Security, and many features of the tax code affecting specific industries, assets, or types of activities. Furthermore, all investments are assumed to be fully compliant with the tax law. The analysis also excludes payments of state and local taxes to focus on the incentive effects of federal tax options.

The effective tax rate methodology also simplifies the domestic capital market. One simplification in several applications, including ours, is to set a uniform market interest rate and a rate of return on corporate equity instead of modeling how those rates would be set in a closed economy. The fixed rates preclude differences in taxes among individuals or changes in taxes to the same individuals from influencing before–tax returns of businesses in our formulas for \( \rho \). Nonetheless, we assume that differences in individual taxes that are reflected in our after–tax returns (\( s \)) and our effective tax rates do affect before–tax returns of businesses, and thereby affect the signals for efficient allocation of investment.

Implementing Effective Tax Rates

To calculate the effective tax rates needed to address efficiency questions, a host of assumptions must be made. Presented here are the major assumptions involving which investments are made, which businesses make them, how they are financed, what returns investors require, how marginal savings are held, and what statutory tax rates apply.

The Investments

In this analysis, we considered investments in 49 types of assets, which represent the full range of equipment, inventories, land, software, and structures that make up private physical capital stock in the United States.8 Residential structures comprised the largest category, accounting for about 40 percent of the total value of the capital stock (see Table 1). Land was next, at 23 percent, followed by nonresidential structures, at 19 percent, and equipment and software, at 13 percent. Inventories accounted for five percent.

---

7 For an analysis of the international implications of corporate income taxation using effective tax rates, see U.S. Congressional Budget Office (2005c).
8 Values for most categories of capital stock were obtained from the Bureau of Economic Analysis in the Department of Commerce. Figures pertaining to land came primarily from the Bureau of Labor Statistics in the Department of Labor. The capital stock was measured as of 2002.
Most of the effective tax rates reported in this paper combine those 49 asset types into a single aggregate statistic (rates on housing are the only exception). The aggregates were constructed by averaging before–tax rates of return for asset types within a category (for example, C corporations). The averages weight each individual asset type by its share of the existing capital stock in the category.

We omitted intangible assets, such as cumulative knowledge and advertising, because little is known about their size and rates of depreciation. They tend to be taxed at lower rates than other assets, however. Mackie (2002) found that omitting those two intangible assets makes the reported effective tax rates a few percentage points too high and alters the impacts of most policy changes by smaller amounts.

For economic depreciation rates, we used the rates the Bureau of Economic Analysis uses to construct stocks of capital for our 49 asset types. We constructed the present value of tax depreciation allowances using continuous–time analogues to current depreciation schedules. We determined a depreciation method and recovery period for each type of asset using IRS publication 946, How to Depreciate Property, and reviewing decisions made in earlier studies.

### The Producers

Investments were distributed among C corporations, noncorporate businesses, and homeowners. We assumed that investing businesses were profitable, and that unincorporated investors (whether businesses or homeowners) had positive taxable income. We also assumed that marginal investments were undertaken

---

9 Including investments by unprofitable firms and individuals with no taxable income would complicate the computation of average statutory tax rates in ways that would shed little light on effective tax rates.
by different investor types in proportion to their ownership of existing assets.

Corporations accounted for about 80 percent of the existing stock of equipment and nonresidential structures, and about 70 percent of inventories (see Table 1).¹⁰ Their share of residential structures, in contrast, was less than one percent; other businesses accounted for about 20 percent, and homeowners accounted for about 80 percent. Land was more evenly divided, with corporations and other businesses holding between one–fifth and one–fourth each, and homeowners holding a bit over half.

Financing and Rates of Return

Corporations funded more of their assets with debt than did noncorporate businesses but not quite as much as homeowners. Corporations financed 41 percent of their assets through debt, compared with 32 percent for noncorporate businesses and 43 percent for homeowners.¹¹ Marginal investments were assumed to be financed in proportion to those existing patterns of finance. C corporations were assumed to pay out 57 percent of their after–tax profits on equity–financed investments as dividends and to reinvest the remaining 43 percent.¹²

We set interest rates, inflation rates, and returns paid by C corporations on equity at levels consistent with trends in the recent past and with the Congressional Budget Office’s macroeconomic forecast for the decade 2006–2015 (U.S. Congressional Budget Office, 2005a). The interest rate (7.2 percent; 5.4 percent real) and real equity return (7.0 percent) are higher than the interest rate on ten–year Treasury bonds of 5.5 percent (3.7 percent real).¹³

Sources of Marginal Savings

At the individual level, the return on saving can be treated in one of three ways: nontaxable (as in IRAs and employment–based retirement plans), temporarily deferred (as in nonqualified annuities and whole life insurance), and fully taxable. Within the nontaxable category, however, some accounts, particularly IRAs and 401(k)s, have binding contribution limits and others, particularly defined–benefit plans, do not.¹⁴ In general, we assigned marginal saving to each of the four groups in proportion to the distribution of assets in 2002.¹⁵ However, the statutory limits on contributions to IRAs and 401(k)s require that an exception be made to that rule; that marginal saving otherwise destined for such an account must be directed elsewhere once the statutory contribution limit has been hit.

For the base case, we estimated the number of families constrained by contri-

---

¹⁰ Ownership by form of organization was estimated on the basis of data obtained from the Bureau of Economic Analysis in the Department of Commerce and from the Internal Revenue Service. S corporations were classified as noncorporate for purposes of this analysis.

¹¹ The percentages of assets that are debt–financed were derived from the Flow of Funds Accounts of the Federal Reserve Board for 2002.

¹² The percentages paid out and retained are determined on the basis of returns earned by common stocks and the growth rates of the corporate capital stock. These percentages are used to combine the tax rates on dividends and capital gains under the “old view” of why firms pay dividends. Except in the sensitivity analysis, effective tax rates shown in the body of the paper are computed under the old view.

¹³ The Treasury bond rate is lower because the government has a much lower risk of default than do businesses and homeowners. The methodology for computing effective tax rates does not adequately treat the taxation of risky returns, so some analysts recommend a rate with less risk, such as the yield on Treasury bonds. Use of the Treasury bond rate would not change the qualitative findings of the paper, although the differences in effective tax rates between equity–financed and debt–financed investments would be larger.

¹⁴ Private defined–benefit plans are subject to limits on the amount of benefit that can be funded that effectively constrain contributions, but those limits are high enough that contributions are rarely affected.

¹⁵ The distribution of savings by type of account was derived from the 2002 Flow of Funds.
bution limits and their share of marginal saving using the 2001 Survey of Consumer Finances (SCF).16 According to that simulation, 46 percent of marginal saving was done by families constrained by a limit. We reshuffled their saving to redirect the amount that would ordinarily have been assigned to the constrained account to the fully taxable and temporarily deferred groups. For the 54 percent of marginal saving done by families that were not constrained by a limit, we left the distribution among groups unchanged.

Consider, for example, saving in corporate equity. Approximately 24 percent of the return on such assets was nontaxable in accounts with binding limits, 16 percent was nontaxable in accounts without binding limits, five percent was temporarily deferred, and 55 percent was fully taxable. The following equations show how marginal saving was distributed among those groups separately for the constrained and unconstrained families, then reaggregated:

\[
\begin{align*}
\text{Nontaxable/binding limits} & \quad (0.54*0.24) + (0.46*0.00) = 0.13 \\
\text{Nontaxable/no binding limits} & \quad (0.54*0.16) + (0.46*0.16) = 0.16 \\
\text{Temporarily deferred} & \quad (0.54*0.05) + [0.46*(0.05+0.02)] = 0.06 \\
\text{Fully taxable} & \quad (0.54*0.55) + [0.46*(0.55+0.22)] = 0.64
\end{align*}
\]

To simulate the extension of EGTRRA, we had to incorporate higher contribution limits. Implementing the exception to the general rule under such circumstances required estimating how saving would have been distributed under those alternative limits. First, we estimated unconstrained contributions to 401(k)s based on an age–specific percentage of income, then reestimated them as if the EGTRRA limits had been in place. Next, we estimated IRA contributions in 2002 based on actual IRA deductions reported in 2002, then extrapolated them to represent unconstrained contributions and those under the fully phased–in EGTRRA limit. Under EGTRRA, the percentage of marginal saving done by families constrained by a limit dropped from 46 to 29 percent. We redistributed that 29 percent to redirect amounts that would otherwise have been saved in constrained accounts to fully taxable or temporarily deferred accounts. That left 17 percent switching from being constrained to unconstrained. We estimated that the higher limits under EGTRRA would stimulate a 55 percent increase in contributions to nontaxable accounts, so we adjusted the existing distribution of assets among the groups to shift that amount from the fully taxable and temporarily deferred groups into the nontaxable group. The remaining 54 percent of marginal saving was unaffected by EGTRRA, so we did not change its distribution among groups.

According to the Flow of Funds, debt and, therefore, marginal saving, is distributed differently among the tax categories than is equity. Furthermore, the distribution is different for corporations than for noncorporate businesses or homeowners. Corporate debt, for example, is most likely to be in the form of bonds, which are commonly held in nontaxable or temporarily deferred accounts. Noncorporate debt, in contrast, is mostly in the form of mortgages and bank loans, which are less commonly held in nontaxable accounts (see Table 2). Those differences lead to different after–tax rates of return among

---

16 The SCF does not cover IRA contributions, so such contributions were imputed based on percentages calculated using CBO’s microsimulation model of individual income taxes. Marginal saving was assumed to be distributed in proportion to the sum of capital income and 401(k) contributions.
the three sectors and, therefore, imply different effective tax rates among the sectors. We test the sensitivity of the results to the assumption that the use of nontaxable accounts varies by sector below.

Statutory Tax Rates

All of the actual and proposed tax laws considered in this paper retain the federal corporate tax rate schedule that was in effect just before EGTRRA was enacted. Furthermore, taxable profits from a marginal investment made under that structure were assumed to be subject to the top statutory rate of 35 percent because that rate is the marginal rate for most corporate profits. We omitted the recently enacted deduction for productive activity that essentially reduces the tax rate to 32 percent for many investments by corporations.

We set individual income tax rates according to two alternative schedules: one representing the base case, and an alternative representing the extension of EGTRRA and JGTRRA (see Table 3). We set the tax rate on a particular type of capital income at the average of the tax brackets faced by taxpayers with both positive amounts of that particular source and positive taxable income overall. The rate is referred to as an average marginal tax rate. For example, if EGTRRA and JGTRRA were to expire, the average recipient of dividends with positive taxable income would pay a tax rate of 28 percent on additional dividends. That rate would be below the top individual rate of 39.6 percent because many recipients were in lower tax brackets. If the two laws were extended, we estimated that the average recipient of dividends would pay 12 percent on additional dividends, reflecting the five percent and 15 percent rate structure under JGTRRA. Note also that if EGTRRA were to expire, homeowners who deducted their mortgage interest payments would have an average marginal tax rate of 22 percent, which would be lower than the 26 percent rate for

<table>
<thead>
<tr>
<th>Assets</th>
<th>Marginal Saving</th>
<th>Extend EGTRRA and JGTRRA</th>
<th>Allow $5,000 Contributions to LSAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002 Flow of Funds</td>
<td>Base Case</td>
<td>Extend EGTRRA and JGTRRA</td>
<td>Allow $5,000 Contributions to LSAs</td>
</tr>
<tr>
<td>Corporate Equity</td>
<td>Exempt</td>
<td>40.4</td>
<td>29.4</td>
</tr>
<tr>
<td></td>
<td>Temporarily deferred</td>
<td>5.4</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>Fully taxable</td>
<td>54.2</td>
<td>64.2</td>
</tr>
<tr>
<td>Corporate Debt</td>
<td>Exempt</td>
<td>35.7</td>
<td>28.8</td>
</tr>
<tr>
<td></td>
<td>Temporarily deferred</td>
<td>20.4</td>
<td>22.5</td>
</tr>
<tr>
<td></td>
<td>Fully taxable</td>
<td>43.9</td>
<td>48.7</td>
</tr>
<tr>
<td>Noncorporate Debt</td>
<td>Exempt</td>
<td>18.5</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>Temporarily deferred</td>
<td>13.9</td>
<td>14.6</td>
</tr>
<tr>
<td></td>
<td>Fully taxable</td>
<td>67.6</td>
<td>70.9</td>
</tr>
<tr>
<td>Homeowner Debt</td>
<td>Exempt</td>
<td>23.0</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>Temporarily deferred</td>
<td>7.0</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>Fully taxable</td>
<td>70.0</td>
<td>73.3</td>
</tr>
</tbody>
</table>


a. The base case assumes that the tax provisions of EGTRRA and JGTRRA expire in 2011.
people with interest income. The latter tend to have higher taxable incomes than the former.

RESULTS UNDER THE BASE CASE

The overall effective tax rate on capital income under the base case is 17.4 percent (see Table 4). That rate, however, is strongly influenced by a negative rate on the implicit income from owner-occupied housing; for capital income generated by business, the overall effective tax rate is 29.2 percent. Even that tax rate varies significantly depending on the type of asset, the form of organization, and the source of financing.

In the corporate sector, the effective tax rate for all asset types averages 31.9 percent, and the interquartile range among asset types is 11.4 percentage points. The variation among asset types generally arises from tax depreciation rules that deviate from economic depreciation unevenly. The top quartile of effective tax rates consists entirely of computers and peripheral equipment, inventories, manufacturing buildings, and land. The bottom quartile contains 19 different asset types. The major asset types with the lowest rates are mining structures, petroleum and natural-gas structures, railroad equipment, aircraft, specialized industrial machinery, fabricated metal products, ships and boats, and construction machinery.

We computed the effective tax rates assuming the currently observed mix of debt and equity financing in the corporate sector. To show the differences between the two sources of financing, we recomputed the rates assuming either all equity or all debt financing. The resulting rate on equity-financed corporate capital income is 41.7 percent and that on debt-financed corporate capital income is –1.1 percent, a difference of 42.8 percentage points. The effective tax rate on equity-financed corporate capital income is higher than the statutory corporate tax rate because of the extra tax imposed on dividends and capital gains at the individual level. That effect is mitigated, however, by the fact that some of this capital income is received

---

Note that this is not the same as calculating the tax rate on assets that are actually equity-financed versus those that are actually debt-financed. Sufficiently detailed data were not available to perform that calculation.
### TABLE 4

effective tax rates on capital income and measures of tax rate uniformity under different policy proposals

<table>
<thead>
<tr>
<th>Measures of Tax Rate Uniformity (Percentage points)</th>
<th>Base Case (a)</th>
<th>Extend EGTRRA and JGTRRA</th>
<th>Allow 30% Expensing of Equipment</th>
<th>Allow $5,000 LSA Contributions</th>
<th>Partially Integrate Individual and Corporate Taxes</th>
<th>Convert Mortgage Interest Deduction to a Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interquartile range across asset types (Corporate)</td>
<td>11.4</td>
<td>12.3</td>
<td>17.1</td>
<td>12.9</td>
<td>12.6</td>
<td>11.4</td>
</tr>
<tr>
<td>Difference between equity–financed and debt–financed</td>
<td>42.8</td>
<td>42.5</td>
<td>44.3</td>
<td>51.6</td>
<td>33.8</td>
<td>42.8</td>
</tr>
<tr>
<td>Difference between corporate and noncorporate</td>
<td>7.6</td>
<td>5.7</td>
<td>6.1</td>
<td>1.9</td>
<td>0.1</td>
<td>7.6</td>
</tr>
<tr>
<td>Difference between tenant- and owner–occupied housing</td>
<td>27.0</td>
<td>23.3</td>
<td>27.0</td>
<td>29.7</td>
<td>27.0</td>
<td>16.6</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office.

\(a\) The base case assumes that the tax provisions of EGTRRA and JGTRRA expire in 2011.
via retirement accounts. Considering only the corporate level tax, the rate on equity–financed corporate capital income is 30.6 percent, lower than the statutory corporate rate by virtue of favorable depreciation rules.

The effective tax rate on debt–financed corporate capital income is negative in part because accelerated depreciation and interest payments generate tax deductions in excess of taxable income, which leads to corporate tax refunds. Taxes paid by savers on interest received do not offset those refunds; again, much of this interest income is received in various accounts in which it is not taxed. In addition, even fully taxable interest is taxed at an average marginal rate of 26 percent because substantial interest income is earned by those taxed at less than the top rate, while corporations deduct interest at the 35 percent marginal statutory tax rate.

The effective tax rate on noncorporate capital income is 24.2 percent, 7.6 percentage points lower than the rate on corporate capital income. That difference arises for two reasons: first, there is no extra tax imposed on the income from equity–funded noncorporate investments; and second, in the graduated rate schedule of the individual income tax, most noncorporate business income is taxed at a rate lower than the statutory maximum. However, income from noncorporate capital (especially equity–financed) is much less likely to be received in a retirement account than is income from corporate capital, making the difference less than it otherwise would be.

The effective tax rate on income from tenant–occupied houses is 21.3 percent, while the rate on the implicit income on owner–occupied houses is –5.7 percent, a difference of 27.0 percentage points. The negative rate on owner–occupied housing arises because most mortgage interest and property–tax payments are deductible even though the (implicit) gross receipts are not taxable. Furthermore, the recipients of the interest payments receive some of that income via accounts in which capital income is nontaxable. Even the rate on tenant–occupied housing is low relative to that paid on other business investment, however, because such structures are overwhelmingly noncorporate investments and are subject to more–generous depreciation rules than most other assets.

RESULTS UNDER PARTIAL REFORMS

In this section, we calculate and compare effective tax rates for the five proposals listed above. We evaluate each proposal in terms of whether it widens or narrows the gap in effective tax rates among asset types, between corporate and noncorporate businesses, between debt and equity, and between housing tenures. Although each proposal has major features that bring the tax on some form of capital income closer to zero, certain details render some of the proposals less likely to enhance efficiency than others.

Permanent Extending EGTRRA and JGTRRA

In order to conform to their budget resolutions, Congress enacted EGTRRA with a sunset at the end of 2010 and JGTRRA with a sunset at the end of 2008; that latter date was recently extended to 2010. In spite of the sunsets, the President and members of Congress have proposed extending EGTRRA and JGTRRA permanently.

---

18 If marginal saving occurs only outside of retirement accounts (as a result of contribution limits or withdrawal constraints), the effective tax rate on the return on debt–financed investment would be positive.

19 Owners of tenant–occupied housing can also deduct their property taxes, but they can pass those costs on to the tenants. That increases the owner’s taxable income, offsetting the tax deduction. Owner–occupants cannot pass the cost of the property tax on to anybody else, so the deduction is not offset by any additional taxable income.
If EGTRRA and JGTRRA were extended, lower effective tax rates on capital income would result from the following provisions:

1. The general reduction in individual income tax rates;
2. The additional reduction in the rates on dividends and capital gains under JGTRRA; and
3. The higher caps on retirement account contributions.  

The reduced statutory tax rates on dividends and capital gains under JGTRRA were intended to help level the playing field between debt– and equity–financed corporate capital. In isolation, they would reduce the difference in effective tax rates by approximately four percentage points, but other provisions of EGTRRA and JGTRRA nearly offset that improvement. For example, the general rate reduction lowered the statutory tax rate on interest from 26 percent to 22 percent. The higher caps on retirement plan contributions also favored debt financing because the resulting individual income tax reduction was greater for debt (dropping from 22 percent to zero) than for equity (in the case of dividends, dropping from only 12 percent to zero). The net result is that extension of EGTRRA and JGTRRA would reduce the difference in effective tax rates between income derived from debt– and equity–financed corporate capital by only 0.3 percentage points, to 42.5 percentage points.

The reduced statutory tax rates on dividends and capital gains would meet with more success in shrinking the tax differential between corporate and noncorporate investment. If EGTRRA and JGTRRA were extended, the difference in effective tax rates between income derived from debt– and equity–financed corporate capital by only 0.3 percentage points, to 42.5 percentage points.

Allow 30 Percent Partial Expensing

JCWAA allowed businesses to expense the first 30 percent of the acquisition cost of assets with an assumed life of 20 years or less that were purchased between September 10, 2001 and May 6, 2003. Firms could depreciate the remainder of the acquisition cost as usual. JGTRRA increased the proportion to 50 percent and extended the time period for acquisitions to be placed in service through the end of 2004. Although the provision as enacted was intended to stimulate the economy during a downturn, the proposal we simulated would restore and make permanent 30 percent expensing.

From an efficiency perspective, the attractiveness of partial expensing as a permanent component of the tax code lies in its ability to reduce taxes on capital income without distorting the after–tax return among alternative assets. Replacing

---

20 Since this paper was originally delivered, the higher caps on retirement account contributions were made permanent by the Pension Protection Act of 2006. The higher caps account for more than half of the change in the effective tax rate on corporate capital reported here. The effect on the other two sectors is much smaller.
a portion of current depreciation allowances with expensing should reduce the variation in effective tax rates among asset types as well as reduce the overall rate. Indeed, partial expensing accomplishes its objective of reducing the effective tax rate on capital. The overall rate drops by 1.3 percentage points to 16.1 percent.

However, this particular partial expensing proposal fails to increase the uniformity of taxation among asset types. Instead, it would raise the interquartile range of effective tax rates among asset types by 5.7 percentage points, to 17.1 percentage points. The proposal would, indeed, make effective tax rates more uniform across the affected asset types (for example, equipment, utility structures, mining and drilling structures, railroad structures, and farm structures), but those asset types have lower rates to begin with than do asset types with longer lives for which expensing would not be allowed. Thus, the provision would increase the difference between the assets eligible and not eligible for partial expensing (see Table 5). That increased difference between short- and long-lived assets would outweigh the reduction in difference across shorter-lived assets affected by the proposal, thus increasing the interquartile range of effective tax rates over all types of assets.

The details of this proposal turned up a positive as well as a negative. The difference in effective tax rates between corporate and noncorporate investment income would decrease by 1.5 percentage points, to 6.1 percentage points. That result occurs because the proposal would cover a much larger share of corporate than noncorporate assets. Assets of the real estate industry in general, and tenant-occupied housing in particular, are held overwhelmingly by the noncorporate sector and would be unaffected by the proposal. Because the effective tax rate on corporate investment income exceeds that on noncorporate investment income

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Percentage of Corporate Assets</th>
<th>Base Case</th>
<th>With 30% Expensing of Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and software</td>
<td>3.7</td>
<td>36.9</td>
<td>29.4</td>
</tr>
<tr>
<td>Communications equipment and instruments</td>
<td>5.4</td>
<td>24.7</td>
<td>19.0</td>
</tr>
<tr>
<td>Office equipment and furniture</td>
<td>2.0</td>
<td>25.1</td>
<td>19.3</td>
</tr>
<tr>
<td>Automobiles</td>
<td>1.0</td>
<td>35.0</td>
<td>27.7</td>
</tr>
<tr>
<td>Other vehicles and transportation equipment</td>
<td>5.3</td>
<td>22.2</td>
<td>17.1</td>
</tr>
<tr>
<td>Machinery</td>
<td>5.6</td>
<td>24.0</td>
<td>18.4</td>
</tr>
<tr>
<td>Fabricated metal products and general industrial equipment</td>
<td>3.7</td>
<td>23.2</td>
<td>17.9</td>
</tr>
<tr>
<td>Other equipment</td>
<td>4.1</td>
<td>29.6</td>
<td>23.1</td>
</tr>
<tr>
<td>All Equipment</td>
<td>30.1</td>
<td>26.8</td>
<td>20.7</td>
</tr>
<tr>
<td>Residential buildings</td>
<td>0.5</td>
<td>29.7</td>
<td>29.7</td>
</tr>
<tr>
<td>Nonresidential buildings</td>
<td>26.0</td>
<td>36.1</td>
<td>36.0</td>
</tr>
<tr>
<td>Mining and drilling structures</td>
<td>3.5</td>
<td>16.1</td>
<td>12.3</td>
</tr>
<tr>
<td>Other structures</td>
<td>14.2</td>
<td>25.8</td>
<td>20.8</td>
</tr>
<tr>
<td>All Structures</td>
<td>44.2</td>
<td>31.7</td>
<td>30.1</td>
</tr>
<tr>
<td>Inventories</td>
<td>10.6</td>
<td>39.4</td>
<td>39.4</td>
</tr>
<tr>
<td>Land</td>
<td>14.3</td>
<td>36.2</td>
<td>36.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>31.9</td>
<td>29.7</td>
</tr>
</tbody>
</table>

Source: Congressional Budget Office.

a. The base case assumes that the tax provisions of EGTRRA and JGTRRA expire in 2011.
b. Not eligible for partial expensing.

21 Land and inventories receive no benefit because they are not depreciated. Even excluding them, however, the interquartile range among the remaining asset types widens by 5.5 percentage points.
to begin with, the larger decrease in the former would reduce the difference between the two.

Allow $5,000 Annual Contributions to Lifetime Savings Accounts

The President’s 2007 Budget calls for the creation of LSAs. Those accounts would be structured like Roth IRAs—that is, contributions would be from after–tax income, but withdrawals would be tax–free—except that the funds could be withdrawn without tax or penalty at any time and for any reason. Also, instead of being limited to workers and their spouses, accounts could be established by parents for their children. Annual contributions would be limited to $5,000 per account and would be in addition to existing retirement accounts.22 As is the case with IRAs, LSAs could not hold noncorporate equity.

The President’s LSA proposal is a partial step towards eliminating the tax on capital income at the individual level. The full step could entail either LSAs with no annual contribution limit or traditional IRAs that are available to all taxpayers without a contribution limit and with unlimited withdrawals. Using the 2001 Survey of Consumer Finances, we estimated that the proposed LSAs would exempt 47 percent of the capital income that was either fully taxable or temporarily deferred under 2001 law (regardless of whether marginal saving could be directed to those accounts). Therefore, the parameters for the percentage of marginal saving coming from fully taxable and temporarily deferred accounts were set at 47 percent of the assets in those types of accounts in 2001. The parameters for the percentage of marginal saving coming from nontaxable accounts were increased to exactly offset those reductions (see Table 2).

Statutory tax rates on equity income under the individual income tax are lower than those on interest income in the base case due to the 20 percent maximum rate on long–term capital gains. That detail means that reducing the individual–level tax on all capital income would lower the effective tax rate on equity income by less than that on debt income. Because the effective tax rate on income from debt–financed investments was already the lower of the two (in fact, negative), the proposal would increase the difference between the two sources of financing by 8.8 percentage points, to 51.6 percentage points.

In contrast to that finding, the difference in effective tax rates on capital income from corporate investment and that from noncorporate investment would decline from 7.6 percentage points to 1.9 percentage points. That result would occur because noncorporate investment is more likely to be equity–financed, and this provision would not affect income from such investment (because it could not be held in either the existing or expanded nontaxable accounts). Thus, the overall rate on income from noncorporate investment would decline by less (3.1 percentage points) than the higher rate on income from corporate investment (8.8 percentage points).

The effective tax rate on the implied income from owner–occupied housing would decline by 2.7 percentage points more than that on income from tenant–occupied housing, increasing the difference between them to 29.7 percentage points. The step has no impact on equity–financed investment in either type of housing (income from owner–occupied housing is not taxed now, and virtually

22 Actually, the President proposed consolidating most IRAs into a single type of plan known as a Retirement Savings Account (RSA). Similarly, the budget proposed consolidating most types of defined contribution plans sponsored by employers into a single type of plan known as the Employee Retirement Savings Account (ERSA). Because RSAs would be virtually indistinguishable from Roth IRAs and ERSAs would be virtually indistinguishable from 401(k)s—both of which are already represented in the data—the analysis excludes them.
no tenant–occupied housing is held in corporate form), and owner–occupied housing is significantly more likely to be debt–financed than is noncorporate business investment in general.23

*Partially Integrate the Individual–Level and Corporate–Level Taxes*

Investments in corporate equity face taxation at both the corporate and individual levels, typically placing them under a higher tax burden than other investments. In early 2003, the President proposed reducing the tax burden on corporate equity to a single level, often referred to as integrating the two taxes. His proposal would accomplish that by allowing individuals to exclude from their adjusted gross income all dividends paid out of profits that had been taxed at the corporate level. Furthermore, the proposal would increase the basis of an investor’s corporate stock by the amount of taxed earnings that the corporation retained.24

Later in 2003, the Congress moved part way toward the President’s proposal by including provisions in JGTRRA that lowered the tax rates on dividends and corporate equity to five percent or 15 percent, through 2008. If JGTRRA expires, the rationale for the President’s proposal regains its full strength. Details of the President’s proposal are complicated, but in the effective tax rate framework the simulation was straightforward—the tax rate on dividends was reduced to zero and that on capital gains was reduced to two–fifths of its value under the base case (two–fifths being the inflation component of the capital gain).

None of the details of this proposal would reduce efficiency along any of the measured dimensions. Eliminating the second layer of tax on corporate equity would reduce the effective tax rate on income from corporate equity by 9.0 percentage points, to 32.7 percent, compared to the base case (see Table 4). By reducing the tax rate on income from corporate equity, integration would also reduce the advantage of corporate debt finance to 33.8 percentage points and the advantage of noncorporate investment over corporate investment to virtually zero. The advantage of home ownership over corporate equity would be reduced as well.

By reducing the tax rate on dividends and capital gains, the integration proposal would encourage people to place more of their interest–earning assets and fewer of their corporate stocks in nontaxable or temporarily deferred accounts. Interest earned outside those accounts would be subject to tax, but dividends and capital gains would be largely exempt. The effective tax rates under the integration proposal in Table 4 ignore the likely reshuffling of debt and equity investments between taxable and nontaxable or deferred accounts and, therefore, somewhat understate the overall reduction in tax rates that the integration proposal would cause.

*Convert the Deduction for Home Mortgage Interest to a Credit*

As explained for the base case, the effective tax rate on owner–occupied housing is negative, resulting in a significant subsidy to that activity. In fact, that subsidy is the largest factor in driving the overall effective tax rate on capital income to only about half the statutory tax rate on corporate income. In November 2005, the President’s Advisory Panel on Federal Tax Reform recommended a provision that

23 The computations assume that tenant–occupied housing would be debt–financed in the same proportion that other noncorporate businesses are. If debt financing of tenant–occupied housing is more extensive than for other forms of noncorporate business, however, this difference would be overstated.

24 That increase should reduce the taxable capital gain to the portion caused by inflation.
was described in the press and within the real estate industry as an attack on the tax-based housing subsidy. The proposal would change the treatment of mortgage interest in three ways:

1. Instead of a deduction, taxpayers would claim a 15 percent tax credit for interest paid,
2. Only interest on mortgages up to the average regional price of housing would be eligible, and
3. The credit would be available to everyone with a mortgage instead of just itemizers.

The first two features would tend to increase the effective tax rate on owner-occupied housing and the third one would tend to reduce it. Which tendency prevails depends largely on difficult-to-estimate factors like the percentage of interest that falls below the cap implied by the average regional price of housing, and the percentage that is currently claimed by itemizers. Our estimates result in the proposal raising the effective tax rate on owner-occupied housing from a negative 5.7 percent to a positive 4.7 percent. Thus, we estimate that the proposal would end the net subsidy of owner-occupied housing in the tax code.

The proposal has no effect on the taxes of corporations or noncorporate businesses. Hence, the proposal does not lead to greater disparity in effective tax rates in any other dimension. No detail would undermine this proposal in terms of efficiency, but the proposal would increase the overall effective tax rate by 2.9 percentage points to 20.3.

SENSITIVITY ANALYSIS

Analyses of effective tax rates have long been known to be sensitive to theories about the role of taxes on dividends. Because the above analysis is based on the old view of corporate dividend taxation, we consider how our findings would differ under the new view.

The above analysis also assumes that efficiency is affected by differences in how the liabilities of corporations, noncorporate businesses, and homeowners are distributed by savers between taxable and nontaxable accounts. Differences in those distributions may not translate into differences in costs of funds for borrowers, however, so we test how much our innovation affects the results.

New View

Under the new view, dividends account for ten percent of the individual income tax burden on returns to corporate equity, down from 57 percent under the old view. Because taxes on dividends are considerably higher than those on capital gains under pre-EGTRRA law, reducing their importance and increasing that of capital gains reduces the effective tax rate on corporate equity in the base case. We find that the effective tax rate on corporate equity is 4.3 percentage points lower under the new view than under the old view. Because the rate on corporate debt

---


26 Despite the proposal’s characterization in the press, the Panel’s report showed the effective tax rate on owner-occupied housing declining from virtually zero to –1.9 percent, presumably because their assumptions differed from ours.

27 The proposal would have distributional and transitional effects that many would object to, as noted in footnote 25.

28 To simplify the exposition, we do not explicitly discuss the temporarily deferred accounts here. Nevertheless, all conclusions concerning nontaxable accounts also apply temporarily deferred accounts.
does not change under the new view, the disadvantage of investing through corporate equity is less.

The lower weight given to taxes on dividends under the new view also means that reductions in such taxes are less effective at bringing the effective tax rate on corporate equity down to the level of those on corporate debt and noncorporate businesses. Under the new view, extending EGTRRA and JGTRRA would actually exacerbate the disadvantage of corporate equity because the 15 percent tax rate on dividends would carry less clout than the combination of lower rates on other income and higher limits on contributions to retirement savings. Under the new view, the President’s proposal to integrate the corporate and individual income tax would reduce the disadvantage of corporate equity by about half as much as under the old view. While the benefits of reducing taxes on dividends are reduced under the new view, the revenue losses are unchanged, so the benefits per dollar of revenue lost falls under the new view.

Use of Nontaxable Accounts

Analysts computing effective tax rates commonly assume that marginal saving comes from nontaxable as well as taxable accounts, which results in lower effective tax rates than would be the case if all saving were in fully taxable accounts. In the above analysis, we introduce additional differences. Specifically, we include in our effective tax rates differences among the three sectors in the share of debt held in nontaxable accounts, and differences within the corporate sector between the share of debt and the share of equity held in such accounts. (Equity of noncorporate businesses and homeowners cannot be held in nontaxable accounts.) Because corporate debt is more commonly held in nontaxable accounts than is the debt of noncorporate businesses and homeowners, we conclude that the use of nontaxable accounts offsets more of the tax burden on corporations relative to the other two sectors than other analysts have concluded.

Our interpretation is somewhat speculative, however, because we have no direct evidence that differences in the use of nontaxable accounts among sectors contribute to differences in interest rates faced by corporations, noncorporate businesses, and homeowners. Although the three sectors appear to borrow in different markets, those markets could be closely enough linked to spread the benefits of nontaxable accounts uniformly among borrowers. To test the importance of our assumption, we have recomputed our effective tax rates for some policies under the assumption that corporate equity and debt instruments from all sectors are distributed between taxable and nontaxable accounts identically.

As expected, uniform use of nontaxable accounts raises our effective tax rates in the corporate sector and lowers them in the noncorporate and owner–occupied housing sectors. For example, the amount by which the effective tax rate on corporations exceeds that on noncorporate businesses under pre–EGTRRA law rises from 7.6 percentage points to 10.0 percentage points. Thus, the disadvantage of investment in the corporate sector is 2.4 percentage points larger if the benefits of nontaxable accounts are shared throughout markets equally.

Less obvious is the absence of a sizeable impact on the tax reforms considered. Most notably, introduction of LSAs would cause about the same reduction in the corporate disadvantage when the benefits of nontaxable accounts are shared equally among sectors instead of in proportion to the initial use in each sector. One reason is that the increased use of nontaxable accounts cannot aid equity invested in noncorporate businesses under either assumption. A second factor is that we estimate that LSAs would increase the use of nontaxable accounts for debt in
all sectors by so much that the impact would overwhelm any differences among sectors.

CONCLUSIONS

Proposals to reduce the tax on capital often seem to carry with them the assumption that increased efficiency would result. Our analysis using effective tax rates demonstrates that details frequently emerge to thwart that outcome. We have analyzed four dimensions across which tax–driven inefficiencies can arise. Proposals targeted at closing the gap along one of those dimensions could inadvertently widen the gap along one or more of the other dimensions. Carefully crafted proposals, however, have the potential of closing gaps along one or more dimensions without increasing them along any others. Our analysis also demonstrates that debt–financed investments and owner–occupied housing are effectively taxed at negative rates under the base case. Therefore, broad–based reductions in the tax on capital would increase the subsidies to those activities.

Acknowledgments

The views expressed in this paper are those of the authors and should not be interpreted as those of the Congressional Budget Office. Eric Toder provided insightful comments.

REFERENCES


