Congressional Research Service
Informing the legislative debate since 1914

Corporate Tax Integration and Tax Reform

September 16, 2016

Congressional Research Service
https://crsreports.congress.gov
R44638

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

In January 2016, Senator Orrin Hatch, chairman of the Senate Finance Committee, announced plans for a tax reform that would explore corporate integration. Corporate integration involves the elimination or reduction of additional taxes on corporate equity investment that arise because corporate income is taxed twice, once at the corporate level and once at the individual level. Traditional concerns are that this system of taxation is inefficient because it (1) favors noncorporate equity investment over corporate investment, (2) favors debt finance over equity finance, (3) favors retained earnings over dividends, and (4) discourages the realization of gains on the sale of corporate stock. Increasingly, international concerns such as allocation of investment across countries, repatriation of profits earned abroad, shifting profits out of the United States and into tax havens, and inversions (U.S. firms using mergers to shift headquarters to a foreign country) have become issues in any tax reform, corporate integration included.

This report first examines the four traditional efficiency issues by comparing effective tax rates. These estimates suggest that there is little overall difference between corporate and noncorporate investment or even favorable treatment of corporations, for several reasons. A larger share of corporate assets benefits from tax preferences. Moreover, only a quarter of shares in U.S. firms is held by taxable individuals; the remainder is held by tax-exempt and largely tax-exempt pension and retirement accounts, nonprofits, and foreigners. Additionally, tax rates on individual dividends and capital gains are lower than ordinary rates.

However, effective tax rates across assets differ markedly, with intangible assets most favored and structures least favored. Debt is treated favorably in both the corporate and noncorporate sectors, but more so in the corporate sector, so that the total stock of assets in the corporate sector is taxed less heavily than in the noncorporate sector when both debt and equity are considered. The distortion between debt and equity finance is large in each sector, with negative tax rates for debt finance in many cases, while differences in taxes affecting dividend payout choices or realization of capital gains on stock appear to be small because of low tax rates.

The report outlines several approaches to integration. Full integration would address both dividends and retained earnings. One approach would tax on a partnership basis by allocating income to shareholders and using the firm to withhold taxes. Credits for withheld taxes would be provided to shareholders, and credits could be made nonrefundable for tax-exempt and foreign shareholders. A different full integration approach would eliminate shareholder taxes and tax only at the firm level. A third would tax at the shareholder level and not the firm by imposing ordinary rates and taxing not only dividends and realized capital gains but also unrealized gains by marking shares to market prices (i.e., mark-to-market). Partial integration focuses on dividends and could provide either a dividend deduction by the firm (with a withholding tax and credits) or a dividend exclusion to the shareholder. Disallowing interest deductions in full or in part could be combined with most proposals.

The report compares these proposals with respect to impact on revenue, administrative feasibility, and effects on both traditional and international tax choices. Shareholder allocation or deductions with refundable credits produce relatively large revenue losses, as does mark-to-market. Nonrefundability and making modifications in mark-to-market can substantially reduce these revenue losses. Most proposals would have modest efficiency gains, and some would modestly increase efficiency losses. Mark-to-market would tax economic income and potentially produce a number of efficiency gains but may not be feasible on administrative grounds. Disallowing or restricting deductions for interest would lead to efficiency gains on a number of margins and provide revenue to help achieve revenue-neutral reforms.

Contents

Introduction 1
Corporate Tax Differentials Under Current Law 2
How the Corporate Tax Produces Differential Effective Tax Rates 2
The Corporate "Double" Tax 2
Tax Preferences and Effective Tax Rates 6
Treatment of Debt Finance 7
Treatment of Foreign Source Income 9
Estimates of Differential Effective Tax Rates 9
Equity Investments 9
Debt-Financed Investments 12
Effective Tax Rates for Investments Financed with Both Debt and Equity 14
Treatment of Retained Earnings and Dividends 15
Effects on Realization of Gains 15
Summary of Differential Effective Tax Rates 16
Methods of Addressing Corporate Tax Distortions 16
Full Integration 17
Taxing At the Shareholder Level: Partnership Taxation 17
Taxing at the Shareholder Level: Mark to Market 19
Taxing Corporate Income at the Corporate Level 20
Taxing Dividends at the Shareholder Level and Retained Earnings at the Corporate Level 20
Partial Integration: Dividend Relief 20
Taxing at the Shareholder Level: Dividend Deductions, Imputation Credit, and Withholding Tax 20
Taxing at the Firm Level: Dividend Exclusion 23
Approaches Also Addressing Debt 23
Comprehensive Business Income Tax 23
Including Interest in Dividend-Relief Proposals 23
Note About Mechanics of Debt Proposals 24
Revenue Concerns 24
Current Tax Rates 24
Full Integration Options 26
Shareholder Allocation With and Without Refundability 26
Mark-to-Market 27
Corporate-Level Only Tax 27
Partial Integration Options 28
Dividend Deduction with Refundability 28
Dividend Deduction Without Refundability 28
Dividend Exclusion 29
Additional Reduction from Eliminating Capital Gains Tax with Dividend Deduction 29
Summary of Revenue Findings 29
Disallowing Deductions for Debt 30
Feasibility, Administration, and Compliance Issues 31
Efficiency and Other Economic Objectives 31
Traditional Efficiency Issues 32

Allocating Capital to Investment Types 32
The Debt-Equity Distortion 33
Pay-Out Choices 33
Realization of Gains 34
International Issues 34
Allocation of Capital Investments Across Countries 35
Repatriation 36
Profit Shifting 36
Inversions 37
Conclusion 37

Tables

Table 1. Effective Tax Rates on Equity Investments 10
Table 2. Effective Tax Rates on Debt-Financed Investments 13
Table 3. Effective Tax Rates on Investments Financed with Equity and Debt 14
Table 4. General Magnitude of Effective Tax Rates and Revenue Loss from Integration Approaches 25

Contacts

Author Information 38

Introduction

In January 2016, Senator Orrin Hatch, chairman of the Senate Finance Committee, announced plans for a tax reform that would explore corporate integration.[1] Corporate integration involves the elimination or reduction of additional taxes on corporate equity investment that arise because corporate income is taxed twice. The corporation pays corporate tax (at 35% for large corporations) on its taxable income. Individuals, in turn, pay individual income taxes on dividends and on capital gains (which arise from corporate retained earnings) when realized. This system of taxation produces differential tax burdens, potentially discouraging the realization of gains on the sale of corporate stock and favoring noncorporate equity investment over corporate investment, debt finance over equity finance, and retained earnings over dividends. One goal of corporate integration is to reduce or eliminate these distortions.

Work has continued on this proposal. Congress held hearings on May 17, 2016, on allowing a corporate dividend paid deduction and on May 24, 2016, on corporate integration and debt.[2]

The focus on corporate tax integration differs from the approach in some recent tax reform plans that have largely proposed broadening the base of the corporate tax, reducing the corporate tax rate, and revising the tax treatment of foreign source income. A number of these elements were addressed in the report of a Senate Finance Committee Working Group in 2015.[3] Former Chairman of the House Ways and Means Committee Dave Camp introduced a corporate tax reform bill (H.R. 1) in the 113th Congress. A tax reform could combine these elements with an integration proposal.

Corporate tax integration was the focus of a major Treasury study issued in 1992.[4] That study recommended approaches to integration that generally reduced or eliminated taxes at the shareholder level while retaining taxes at the corporate level, including an exclusion of dividends for shareholders. Over the years, taxes on shareholders have been reduced. Capital gains, taxed at ordinary rates under the Tax Reform Act of 1986 (P.L. 99-514) and capped at 28% in 1990, were revised in 1997 and taxed at a maximum rate of 20%.[5] In 2003, the President proposed a dividend exclusion for shareholders. Congress instead lowered tax rates on dividends (which had been taxed historically at ordinary rates) and capital gains, with a maximum rate of 15%.[6] These 2003 provisions, along with the 2001 tax cuts, were set to expire after 2010. After some extensions, in 2013 an agreement was reached to retain the lower tax rates on dividends and capital gains but to

[1] See Kaustuv Basu, Stephen K. Cooper, and Kat Lucero, "Hatch Plans to Explore Possibility of Corporate Integration," *Tax Notes*, January 25, 2016, pp. 399-400.

[2] U.S. Congress, Senate Committee on Finance, *Integrating the Corporate and Individual Tax Systems: The Dividends Paid Deduction Considered*, hearing, 114th Cong., 2nd sess., May 17, 2016, at http://www.finance.senate.gov/hearings/integrating-the-corporate-and-individual-tax-systems-the-dividends-paid-deduction-considered. U.S. Congress, Senate Committee on Finance, *Debt versus Equity: Corporate Integration Considerations*, hearing, 114th Cong., 2nd sess., May 24, 2016, at http://www.finance.senate.gov/hearings/debt-versus-equity-corporate-integration-considerations.

[3] United States Senate Committee on Finance, *The Business Income Tax Bipartisan Tax Working Group Report*, at http://www.finance.senate.gov/imo/media/doc/The%20Business%20Income%20Bipartisan%20Tax%20Working%20Group%20Report.pdf.

[4] U.S. Department of Treasury, *Integration of The Individual and Corporate Tax Systems* at https://www.treasury.gov/resource-center/tax-policy/Documents/Report-Integration-1992.pdf.

[5] For a history of capital gains taxation, see CRS Report 96-769, *Capital Gains Taxes: An Overview*, by Jane G. Gravelle.

[6] For a history of dividend taxation, see CRS Report R43418, *The Taxation of Dividends: Background and Overview*, by Jane G. Gravelle and Molly F. Sherlock.

tax these amounts at high-income levels of 20%. Additionally, in 2010, as part of the Affordable Care Act (P.L. 111-148, as amended), an additional 3.8% tax was imposed on investment income, including dividends and capital gains, of high-income taxpayers.

Several factors that are important in considering proposals have changed in the almost 25 years since the 1992 study, aside from the lower shareholder taxes that exist today. One of these factors is the increased importance of a global economy and multinational firms with investments and activities in many countries. These firms' choices with respect to the location of investment and profits are affected by firm-level rather than shareholder-level taxes. A second change is that the fraction of shareholders who are not subject to U.S. shareholder taxes has increased, so that currently only about a quarter of corporate stock of U.S. firms is estimated to be owned by shareholders subject to U.S. individual taxes on dividends and capital gains (compared to about half at the time of the study).[7] Inflation and the expectation of inflation have also declined, affecting various relative tax rates. Finally, the growth and recognition of the importance of intangible assets that are tax-favored and are more dominant in the corporate sector affect the relative treatment of the corporate and noncorporate sectors in the aggregate.

The next section of the report, "Corporate Tax Differentials Under Current Law," explains the differential effects of the current system of taxing corporate income. The following section, "Methods of Addressing Corporate Tax Distortions," outlines the various options for addressing corporate tax integration. The remaining sections address revenue, administrative, and efficiency concerns associated with various options (see "Revenue Concerns," "Feasibility, Administration, and Compliance Issues," and "Efficiency and Other Economic Objectives").

Corporate Tax Differentials Under Current Law

This section considers the current treatment of corporate and noncorporate income. The first part of this section explains how the current system produces differential tax rates along different margins, not only by sector or form of finance but also by asset in the presence of tax preferences. The next section provides estimates of the effective tax rate differentials that the current system produces, in preparation for subsequently discussing potential efficiency gains of the options discussed in the following section.

How the Corporate Tax Produces Differential Effective Tax Rates

Several elements of the U.S. income tax should be considered in analyzing the effects of business taxes, the corporate tax, and various integration options. These elements include how the system potentially taxes income from corporate investments more heavily than income from noncorporate investments, the effect of tax preferences that reduce effective tax rates, how debt is treated, and the treatment of foreign source income.

The Corporate "Double" Tax

The United States has a "classical" corporate tax system, modified by lower taxes on dividends and capital gains. Corporate taxable profits are subject to a 35% rate for large corporations.[8]

[7] See Steven M. Rosenthal and Lydia S. Austin, "The Dwindling Taxable Share of U.S. Corporate Stock," *Tax Notes*, May 16, 2016, pp.923-934, at http://www.taxpolicycenter.org/publications/dwindling-taxable-share-us-corporate-stock/full. A similar share of dividends is estimated using data from the Internal Revenue Service (IRS) and the National Income and Product accounts in CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples.

[8] The corporate tax rate is graduated so that small corporations pay at a lower rate.

Firms then may distribute after-tax profits as dividends or retain earnings for investment. The additional investment of retained earnings causes the value of the firm to increase, creating the potential for capital gains.

If all profits were taxed at the statutory rate, distributed as a dividend, and then taxed at ordinary rates to a shareholder in the 35% bracket, the total tax on a corporate investment would be 58% (a 35% corporate tax and an additional 35% on the remaining 65% of profit) compared with a tax rate of 35% on noncorporate investment, for a 23 percentage point difference. Those effects, however, are smaller because of favorable treatment of dividends and capital gains; options to invest stock through tax-exempt accounts, such as retirement plans, that pay no shareholder-level tax; and tax preferences that lower the effective corporate tax rate more than the effective noncorporate rate.

Tax treatment at the shareholder level depends on the type of shareholder; as noted above, a recent study estimated that most stock is held in forms not subject to U.S. individual income taxes. Shareholders are treated differently if they are U.S. individuals (24.2%), U.S. tax-exempt entities (50%), or foreign shareholders (26%).[9]

U.S. Taxable Shareholders

Individuals pay taxes on dividends and, if they sell their stock, taxes on any capital gain. Some gain is deferred and sometimes never taxed at all if corporate stock is passed on at death; therefore, overall retained earnings are taxed more lightly than distributed earnings. Because some corporate income is taxed twice, this treatment is referred to as double taxation.

This system departs somewhat from the classical system in that tax rates on dividends and capital gains are lower than ordinary rates. Taxpayers with ordinary rates of less than 15% pay no tax on dividends or capital gains; taxpayers with ordinary rates of 25%, 28%, 33%, and 35% pay a 15% rate; taxpayers at the top rate of 39.6% (with $400,000 or more of taxable income for single returns and $450,000 for joint returns) pay a 20% rate. A Congressional Research Service (CRS) study estimates that the average tax rate at the margin on dividends is 14.7% and the average for realized capital gains is 15.4%.[10] Half of capital gains are estimated not to be subject to tax because the gains are passed on at death, and thus the effective tax rate is 7.7%. Weighting the two tax rates by their estimated income shares results in an overall individual shareholder tax averaging 11.6%.[11]

The 11.6% is not the additional tax, since it is applied to income net of the corporate tax rate. As will be discussed subsequently, this rate should be the effective corporate tax rate, which varies by investment; if corporate profits were taxed at 35%, the additional tax would be 11.6% times (1-0.35), or 7.6%.

This calculation does not include the 3.8% tax on investment enacted by the Affordable Care Act. Based on estimates that about 56% of dividends and capital gains on corporate stock are subject to the tax,[12] the additional tax rate would be 2.1%. After interacting with a 35% tax rate, the rate

[9] Steven M. Rosenthal and Lydia S. Austin, "The Dwindling Taxable Share of U.S. Corporate Stock," *Tax Notes*, May 16, 2016, pp.923-934, at http://www.taxpolicycenter.org/publications/dwindling-taxable-share-us-corporate-stock/full.

[10] CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples.

[11] See CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples, for assumptions and sources. Dividends are estimated to be 4% out of a 7% real return.

[12] This estimate is based on tax returns with $200,000 or more in adjusted gross income accounting for 61% of

would be 1.4%. The combined average marginal tax rates for dividends and capital gains are 16.8% and 17.6%.

Tax-Exempt Shareholders

A large share of corporate income (estimated at 50% of the total) is not taxed at the shareholder level because it is held in tax-exempt, or largely tax-exempt, form, such as pensions, individual retirement accounts, annuities, and life insurance. Some shares also are held by nonprofits, such as endowment funds of universities and colleges or foundations. Overall, pensions and individual retirement accounts are 37% of the total, nonprofits are 5%, and the remainder is largely insurance assets in annuities and whole life insurance.[13]

Foreign Shareholders

Foreign shareholders that hold portfolio shares of U.S. firms account for 26% of portfolio shares. The study of the distribution of shares did not include direct investment of foreign corporations through investments in U.S. subsidiaries, which is 79% the size of portfolio holdings by foreign persons. Foreign shareholders are estimated to pay only a negligible amount of U.S. tax, although they may be subject to taxes on capital gains and dividends in their home countries.

Dividends are subject to a 30% withholding tax, which can be reduced or eliminated by treaty. Based on Internal Revenue Service (IRS) data for 2011, the average withholding tax on dividends was 5.9%.[14] Capital gains are not taxed, so the overall withholding tax rate is estimated at 3.4%.

These dividends and capital gains may be subject to tax in the countries in which they are received and may receive a credit for withholding taxes.[15] Some share of these dividends will likely be tax exempt. Of the dividends paid, less than 3% could be directly tied to individuals. Corporate recipients may not be subject to tax because dividends are exempt or eligible for credits; corporate recipients receive 57% of dividends (which include both portfolio and direct investment). This income could eventually be taxed when and if it is received by taxable shareholders. Most of this income may have been from direct investment, which accounts for 44% of the combined portfolio and direct stock. Partnerships and trusts (which could involve business or individual ownership, or even retirement accounts) are responsible for 7%. Exempt groups (governments, international organizations, and tax-exempt organizations) account for 11%. That share suggests that tax-exempt shareholders might account for about 20% (11%

---

qualified dividends. This number is too high because the tax applies to amounts over $250,000 for joint returns, which are likely to account for most of the higher-income returns. The 56% number was estimated by taking proportional shares of the $100,000 to $200,000 (1/2) and the $200,000 to $500,000 class (1/6), averaging them, and reducing the share by that amount. Data are from Internal Revenue Service, Statistics of Income, Table 2.1 at https://www.irs.gov/uac/soi-tax-stats-individual-statistical-tables-by-size-of-adjusted-gross-income.

[13] Tax is deferred on income from annuities, that is, income will eventually be taxed when the annuity is paid. Inside buildup on whole life insurance is also deferred and exempt if paid as a death benefit.

[14] Based on data in Scott Luttrell, "Foreign Recipients of U.S. Income, 2011," *Statistics of Income Bulletin* (winter 2015), 60% of dividends are exempt and of the remainder the average withholding tax is 14.5%. Thus, the overall effective rate is 5.9%. Posted at https://www.irs.gov/pub/irs-soi/soi-a-init-id1501.pdf.

[15] For a summary of tax rates in other countries, see Robert Carroll and Gerald Prante, Corporate Dividend and Capital Gains Taxation: A Comparison of the United States to Other Developed Nations, Prepared for the Alliance for Savings and Investment, Ernst & Young LLP, February 2012, at http://www.theasi.org/assets/EY_ASI_Dividend_and_Capital_Gains_International_Comparison_Report_2012-02-03.pdf.

divided by 56%) of portfolio stock held by foreign shareholders. Most of the remainder, 21%, goes to qualified intermediaries (e.g., banks), and the final beneficiary is not reported.[16]

Note that although the portfolio investments reflect shares of foreign persons owning stock in U.S. corporations, the U.S. subsidiaries of foreign parents are subject to corporate tax and could be affected by certain types of integration approaches.

Taxation of Pass-Through (Noncorporate) Businesses

Income of pass-through businesses is subject only to the individual tax, with income allocated to each owner.[17] These firms will be referred to as noncorporate firms, although some are incorporated for non-tax purposes. One of the non-tax differences between corporations and ordinary noncorporate businesses is that shareholders of corporations have limited liability for the firm's debts (in the amount of their corporate stock). Many, although not all, pass-through firms have full liability, putting personal assets at risk. Pass-through businesses include sole proprietorships (one owner) and ordinary partnerships (more than one owner where the owners have full liability). Limited partnerships usually have a general partner with full liability and limited partners whose liability, similar to stockholders in ordinary corporations, is limited to their investment. Subchapter S corporates are corporations with a limited number of shareholders who elect to be taxed as pass-through businesses. Limited liability companies (LLCs) are incorporated and organized in a way that allows them to be taxed as pass-throughs.

All of the income of sole proprietorships is subject to payroll taxes, including OASDI (Social Security) taxes and the 2.9% Medicare tax. Individual owners have the option of organizing as a Subchapter S, where income from capital can be separated. The 3.8% additional tax on income in excess of $250,000 ($200,000 for a single person) that applies to dividends and capital gains (as well as interest) also applies to passive income of partnerships and Subchapter S firms. A proprietor was already paying a 2.9% Medicare tax prior to the Affordable Care Act, and the health reform imposes an additional tax of 0.9% on these high incomes, making the tax a total of 3.8%. Active income of partnerships and Subchapter S firms is exempt.

Another type of pass-through firm is a Real Estate Investment Trust (REIT), which is a corporation whose treatment is similar to a pass-through firm. REITs largely hold real estate assets but must distribute most income to shareholders. These distributions are deducted from income and taxed to shareholders at ordinary rates.[18]

The difference in tax burden between investing in a noncorporate firm and a corporate one depends on the tax rate of the individual and whether the corporate investment option is through a taxable ownership or tax exempt. It is also affected by whether the noncorporate investment is in a form subject to the 3.8% tax on investment income.

The overall average marginal statutory rate for noncorporate firms is estimated at 27%. Overall, the additional 3.8% tax on high incomes probably adds around a percentage point, making it a 28% rate.[19]

---

[16] Based on Scott Luttrell, "Foreign Recipients of U.S. Income, 2011," *Statistics of Income Bulletin* (winter 2015), at https://www.irs.gov/pub/irs-soi/soi-a-init-id1501.pdf.

[17] See CRS Report R43104, *A Brief Overview of Business Types and Their Tax Treatment*, by Mark P. Keightley for additional information.

[18] See CRS Report R44421, *Real Estate Investment Trusts (REITs) and the Foreign Investment in Real Property Tax Act (FIRPTA): Overview and Recent Tax Revisions*, by Jane G. Gravelle, for additional information.

[19] The uncertainty in the estimate derives from the uncertainty about the share of income of proprietorships,

Congressional Budget Office Estimates

A 2014 Congressional Budget Office (CBO) study of effective marginal tax rates on investment estimated shares of stockholders, based on 2007 data.[20] The study estimated that 57.2% of investment in stock is in taxable accounts, with 3.9% in tax deferred accounts and most of the remainder in tax-exempt accounts.

As discussed above, the recent estimates by Rosenthal and Austin (2016) suggest a smaller share (about a quarter) of corporate stock held in taxable accounts. The CBO estimates differ from the Rosenthal and Austin estimated shares for several reasons. Most importantly, the CBO estimates are designed to determine the tax rate on the marginal investment. The estimated value of accounts, such as Individual Retirement Accounts (IRAs) and 401(k)s, that were at the maximum would not be included in the CBO estimates because individuals were no longer able to make an additional investment in these accounts. The CBO measures also focused on the distribution of domestic ownership, as no shares of foreign stockholders were included.

In addition, the CBO study estimated slightly higher marginal tax rates on dividends (18.4%), capital gains (21.2%), and noncorporate income (33.1%) than the CRS estimates.

Tax Preferences and Effective Tax Rates

In determining the effect of the business tax system and in designing integration proposals, an important issue is that of tax preferences: provisions that cause the effective tax rate to be less than the statutory rate.[21]

The most important tax preference that affects burdens on domestic investment is accelerated depreciation, which allows deductions for costs to be recovered faster than is justified by the economic decline in the value of the asset. When the deduction for costs matches economic depreciation, the effective tax rate is equal to the statutory tax rate in the absence of other subsidies. When costs are deducted immediately, as is the case of investment in intangibles, the

---

partnerships, and Subchapter S firms that represents labor income and capital income. Data from the IRS indicate that total proprietorship, partnership, and Subchapter S income are respectively $205.8 billion, $325.8 billion, and $302.1 billion for 2013 (line counts from Schedule E and 1040 total line 12, from Individual Income Tax Returns Line Item Estimates, 2013, at https://www.irs.gov/pub/irs-soi/13inlinecount.pdf). Schedule E data also indicate that 81.3% of partnership income and 90.0% of Subchapter S income are active and not subject to the tax. A CRS study indicates that 86.5% of partnership, 88% of Subchapter S, and 25.9% of proprietorship income had adjusted gross income over $250,000 (see CRS Report R42359, *Who Earns Pass-Through Business Income? An Analysis of Individual Tax Return Data*, by Mark P. Keightley). Allowing only passive income above the limits for partnership and Subchapter S income indicates an average additional investment tax of 0.61% and 0.33%, respectively. For proprietorships applying a 2.9% tax to 74.1% and a 3.8% tax to 25.9% results in a 3.13% tax for proprietorships. If full incomes were weighted, the average would be 1.42%. However, a much larger share of proprietorship income likely is labor income. At the other extreme, if only 25% of proprietors' income is capital income and all of partnership and Subchapter S income is, the tax would be 0.77%. The 28% rate is smaller than the 33.1% rate estimated by the Congressional Budget Office (CBO). See CBO, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

[20] CBO, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

[21] Other CRS reports that relate to these topics include CRS Report R43432, *Bonus Depreciation: Economic and Budgetary Issues*, by Jane G. Gravelle; CRS Report R41988, *The Section 199 Production Activities Deduction: Background and Analysis*, by Molly F. Sherlock; and CRS Report R44522, *A Patent/Innovation Box as a Tax Incentive for Domestic Research and Development*, by Jane G. Gravelle. The last report compares the effects to the research credit.

effective tax burden on a marginal investment (one that just breaks even) is zero. The recovery of investments in oil and gas is highly accelerated, making mining investments treated most favorably of investments other than intangibles. Depreciation is significantly accelerated compared to estimates of economic depreciation on equipment investments in the aggregate and public utility structures, but less so on structures. Residential buildings are more favorably treated than some forms of nonresidential structures, such as commercial and industrial buildings. The latter have effective tax rates around the statutory rate.

Also in effect on a temporary basis is bonus depreciation, which allows the immediate expensing of half of the cost of investment in equipment. Bonus depreciation has been periodically extended since enactment in 2008; it is currently scheduled to be phased out after 2019.[22]

Another important tax provision is the production activities deduction, which allows a deduction of 9% of taxable income for profits associated with domestic production, including manufacturing, construction, and some other industries.

Finally, the research and experimentation credit, which applies to intangible investment in research, also reduces effective tax rates. The credit had been a temporary one since 1981 but was made permanent in December 2015.

Another important feature that reduces effective tax rates is the treatment of foreign source income, which will be discussed below (see "Treatment of Foreign Source Income").

Treatment of Debt Finance

If firms borrow to finance investments, the interest is deducted. The deduction of interest goes beyond eliminating the corporate tax on profits attributable to debt finance, because the rate at which profit is effectively taxed is lower than the rate at which interest is deducted due to tax preferences and inflation. To explain, consider that neither of these effects exists. If the interest rate on borrowed money is 5%, a firm can earn a 5% return and pay no taxes, because the corporate profits tax due is exactly equal to the deduction for interest expense. Suppose, however, that because of special tax benefits the effective rate is 25% and the statutory rate is 35%. The firm will have a tax savings of 0.35 times 5%, or 1.75%, but will pay on the profit 0.25 times 5%, or 1.25%. This negative tax at the firm level means that a firm could make investments that yield less than 5% and still be able to cover interest payments.

The negative tax rate at the firm level on debt finance is further increased because of inflation. Tax depreciation rules generally are beneficial enough to offset inflation (and often provide a subsidy in addition), but nominal interest (the real interest rate plus inflation) is deductible. In this example, suppose there is an inflation rate of 2% along with the effective 25% rate on real profit. Keeping the real interest rate the same, the nominal interest rate would be 7% (the real rate plus the inflation rate). The tax benefit of interest deduction is now 2.45% (0.35 times 7%).

Interest income, including the inflation portion of the nominal interest rate, is subject to tax by creditors, but the tax rates are lower, meaning the combined effect of the firm/creditor tax net result is likely to be small or even zero. The estimated effective tax rate is 22%, but, as with corporate stock, a large fraction of that income is not expected to be subject to tax. There is no study of the distribution of interest similar to the study of corporate stock; however, only 19% of interest income paid from all sources appears on individual tax returns.[23] This measure does not

[22] For a further discussion of bonus depreciation, see CRS Report 96-769, *Capital Gains Taxes: An Overview*, by Jane G. Gravelle.

[23] See CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations*

account for interest received and paid abroad. In the last reconciliation of National Income and Products Accounts (NIPA) and IRS data done by the Commerce Department (in 2005), 74% of interest income in personal income was excluded, with the largest shares 42% in pensions and insurance and 19% in imputed services.[24] (This calculation also would not account for interest paid to foreigners.) The CBO study cited above and using 2007 data from the Flow of Funds accounts finds a slightly smaller taxable share for corporate interest than for corporate stocks.[25] A comparison of corporate stocks and bonds for 2015 found smaller shares of bonds taxable directly to individuals and a larger share of foreign investors as compared to stock ownership.[26] These studies suggest that a smaller share of debt is taxable than equity and that a larger share is foreign.

Interest paid to foreign persons is subject to a negligible withholding tax but may be subject to tax in the countries of residence. A large share appears to be intercompany debt, since 68% of interest payments are to corporations; about a quarter are to corporations in the tax haven countries of Bermuda, British Virgin Islands, Cayman Islands, Ireland, Luxembourg, and Switzerland, which have low or no taxes.[27]

Interest income is also subject to the 3.8% tax, and, adjusting for the share of taxable interest in higher incomes, the additional tax is 2%.[28] Using a 19% share of taxable recipients, the total tax is 4.6% (0.19 times 24%).

---

for Tax Reform, by Jane G. Gravelle and Donald J. Marples, for sources of data on share taxable and tax rates.

[24] The most recent reconciliation study was Mark Ledbetter, "Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income, New Estimates for 2005, Revised Estimates for 2004," *Survey of Current Business*, November 2007, at https://www.bea.gov/scb/pdf/2007/11%20November/1107_pi_agi.pdf.

[25] This study excluded foreign shares and tried to estimate the distribution at the margin, which would reflect limits on contributions to retirement accounts. It divided shares into exempt, deferred, and taxable. For corporate equity, it estimated 57.2% fully taxable, 3.9% deferred, and 38.9% nontaxable. For corporate debt, it estimated 52.3% taxable, 14.9% deferred, and 32.8% nontaxable. For pass-through debt, it estimated 76.3% taxable, 10% deferred, and 13.6% exempt. See CBO, Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

[26] See Joint Committee on Taxation, *Overview of the Tax Treatment of Corporate Debt and Equity*, JCX-45-16, May 20, 2016. This analysis cannot be used to compare to the corporate distribution data already presented because it does not separately identify the part of household and nonprofit shares that is nontaxable either as an IRA or holding of a nonprofit organization, does not determine ownership of mutual funds (regulated investment companies), and does not separate portfolio from related company foreign interest holdings. Also, the debt is limited to bonds, includes foreign bonds held by individuals, and excludes corporate borrowing through trade credit, mortgages, and bank loans. Bonds account for about half the value of credit market instruments. See Flow of Funds Accounts, Federal Reserve Statistical Release, Z.1, Table B.100, Balance Sheet of Households and Nonprofit Organizations, March 8, 2012, http://www.federalreserve.gov/releases/z1/20120308/z1r-5.pdf. With those limitations in mind, however, the Joint Committee reported that only 2.5% of bonds are held directly by the households and nonprofit sector, whereas 37.3% of corporate equities are held by this sector. It found 26% of bonds held by foreigners and only 16% of equities.

[27] Only 1.5% of interest is subject to withholding and the tax rate is 14.4%, for an effective overall withholding tax rate of 0.2%. For these data and data on recipients, see Scott Luttrell, "Foreign Recipients of U.S. Income, 2011," *Statistics of Income Bulletin* (winter 2015), 60% of dividends are exempt and of the remainder the average withholding tax is 14.5%. Thus the overall effective rate is 5.9%. Posted at https://www.irs.gov/pub/irs-soi/soi-a-init-id1501.pdf.

[28] According to IRS data, 56.2% of interest is reported on returns with over $200,000 in income. Adjusting to the $250,000 by the same interpolation as for dividends indicates a share of 51.6%, indicating an effective rate of 2%. The combined 24% tax rate on interest is smaller than the CBO estimate of 27%. See CBO, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

Treatment of Foreign Source Income

The growth in the importance of foreign source income has changed the way corporate integration is viewed, compared with the focus in 1992 and even in the 2003 tax changes. The U.S. corporate-level tax is largely imposed on a source basis, reflecting the taxes in the jurisdiction where the activity takes place. Thus, a lower corporate tax generally encourages more equity (although not necessarily debt-financed) investment in the United States as compared to foreign countries. The shareholder and creditor taxes are largely imposed on a residence basis and apply regardless of where the investment is located. As a result, the proposals that were recommended in 1992, which largely relieved tax at the shareholder and individual level and not the corporate level, might be less efficient today. The lower tax rates proposed and eventually enacted on dividends also would not affect the location choices of multinational firms.

The corporate tax is not wholly a source-based tax; technically, it is imposed on worldwide income. Effectively, however, little tax is paid on foreign source income due to deferral and foreign tax credits.[29] Income earned by foreign subsidiaries is not subject to tax unless it is repatriated (paid as a dividend to the U.S. parent).[30] Because a fraction of profits is reinvested permanently (as plant and equipment), some share of this income is never taxed. In addition, dividends (and branch profits, which are taxed currently) are eligible for credits against U.S. tax liability for taxes paid to foreign governments. Because excess credits from higher-tax countries can be used to offset U.S. tax liability from low-tax countries, the effective tax rate is small.

In addition to suggesting relief be provided at the corporate level rather than the shareholder level, global considerations raise important issues of how to treat foreign source income under some integration approaches. Should relief be granted to shareholders for foreign source income that is deferred? Should relief be granted to shareholders where U.S. tax is offset by foreign tax credit?

Estimates of Differential Effective Tax Rates

One objective of corporate tax integration is to reduce the distortions caused by the current tax treatment. This section examines the magnitude of the distortions arising from the corporate tax and other elements of the tax system by estimating effective tax rates on new investment. Three sets of rates for corporate and noncorporate investments are presented: those for equity-financed investment, those for debt-financed investment, and those with combined debt and equity finance. These discussions are followed by a brief discussion of the incentives to retain earnings and delay capital gains realizations.

Equity Investments

Table 1 provides estimates of the effective tax rates on equity investments through corporate and noncorporate investment. These estimates reflect the share of profits collected from new domestic investments in equipment, structures, and intangible assets.[31] These rates show the scope of tax

[29] See Melissa Costa and Jennifer Gravelle, "U.S. Multinationals Business Activity: Effective Tax Rates and Location Decisions," Proceedings of the National Tax Association 103rd Conference, 2010, at http://www.ntanet.org/images/stories/pdf/proceedings/10/13.pdf.

[30] Some easily abused income, referred to as Subpart F income, is currently taxed.

[31] The estimates use a discounted cash flow analysis that compares the pretax return required to yield a given after-tax return, taking into account the rate of recovery of costs and credits. The after-tax return is the same for all asset types in a sector, and the required pretax returns vary. The effective tax rate is the pretax return minus the after-tax return,

preferences in the current business system, as well as differences between corporate and noncorporate investments. Because preferences vary across assets, it can be misleading to compare only the overall tax rates weighted by the composition of assets.[32]

Table 1. Effective Tax Rates on Equity Investments

(in percentages)

Asset Type	Corporate Firm	Corporate Total	Corporate Total: CBO Assumptions	Noncorporate	Noncorporate: CBO Assumptions
Equipment	23.6	26.1	26.5	18.8	22.8
Public Utility Structures	24.9	27.3	27.7	19.8	23.6
Other Nonresidential Structures	30.8	33.0	33.3	25.0	29.7
Residential Structures	28.2	30.5	30.9	22.6	26.9
Intangibles					
R&D Intangibles	-63.3	-57.9	-57.1	-65.2	-66.1
Advertising Intangibles	0.0	3.3	3.8	0.0	0.0
Other Intangibles	0.0	3.3	3.8	0.0	0.0
Total	19.7	22.4	23.6	21.1	25.6

Sources: Congressional Research Service (CRS). See CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples for method of computation and assumptions. The estimates in that report do not reflect the 3.8% tax on investment income, the foreign withholding tax, or the research tax credit, which are incorporated here. See also for estimates of firm-level effective tax rates by disaggregated asset type in the case of equipment and other nonresidential structures, although the firm-level noncorporate estimates would be higher by up to a percentage point due to the 3.8% tax on investment income. The corporate statutory rate used is 34.14% to reflect the production activities deduction. Alternative estimates using Congressional Budget Office (CBO) shares of taxable stocks and tax rates, discussed in text, reflect somewhat higher tax rates on dividends (18.4% rather than 16.4%), capital gains (21.2% rather than 17.1%), and noncorporate investment (33.1% rather than 28%). Total taxable shares of stock are 25% in the basic case and 57.2% under the CBO assumptions. The other assumptions and underlying data include a corporate after-tax real discount rate of 7% and an inflation rate of 2%, used in all simulations. (These assumptions differ slightly from the CBO assumptions of 5.8% and 2.4%, although effective tax rates are almost insensitive to the real discount rate.) The share of earnings paid in dividends and the share of capital gains realized, as well as economic and tax depreciation rules, are the same and are documented in CRS Report R44242.

Notes: These calculations do not include inventory, largely because the effective tax rate has a negligible effect on the cost of capital, which drives investment choice. Returns to inventories are taxed at or above the statutory rate, depending on the method of inventory accounting. R&D = Research and development.

There are two measures of the effective tax rate for corporate investments: (1) the effective tax rate at the firm level, which does not include taxes on shareholders, and (2) the total corporate tax rate that does. The firm-level rates are relevant to decisions by multinational corporations (both U.S.-parented and foreign-parented) about where to locate investments. (Shareholder taxes are paid regardless of where the firm invests.) The firm-level corporate taxes also show how much

divided by the pretax return.

[32] When combining assets to produce a total, the method is to multiply each pretax return by its share of the capital stock to find an overall pretax return, which will indicate the overall tax share in the composite investment.

the statutory rate of 35% is reduced by tax preferences, and the treatment of these preferences is an important design issue in corporate tax integration plans. In the corporate sector, the provisions allowing for accelerated cost recovery, the production activities deductions, and research tax credits result in an effective tax rate of 20%. The production activities deduction has a minor effect, reducing the overall statutory tax rate in the corporate sector by less than a percentage point. Accelerated cost recovery reduces effective tax rate for all assets. The most favorable (and negative) rate is that for intangible investment in research and development (R&D), which benefits from expensing (which in isolation produces a zero tax rate) and the R&D credit, which leads to a negative rate.[33] Investment in branding through advertising and other intangible investments (generally workforce training) have a zero tax rate because they are eligible for expensing.

Table 1 does not include temporary bonus depreciation, which currently allows 50% of equipment to be expensed but is scheduled to be phased out for 2017 (although it has been in place since 2008 through numerous extensions). Including it would lower the firm-level corporate tax rate for equipment to 13.4% and for public utilities to 14.2%, or by about 10 percentage points. The overall tax rate would be reduced by about 5 percentage points, to 14.6%. Thus, bonus depreciation is important. It would be less important, however, in the noncorporate sector because these assets account for about 23% of noncorporate capital stock but about 45% of the corporate capital stock. The tax rates also do not reflect the Section 179 expensing provision for equipment, which has dollar caps and phase-outs and the graduated rate structure.[34]

The tax rates for corporations reflect domestic investment. Foreign source income is likely taxed at a lower rate. Studies of the average tax rate paid by subsidiaries of U.S. firms abroad indicated that firms paid an overall average tax of 14.1% tax paid to foreign jurisdictions[35] and a residual tax of 3.3% paid to the United States.[36] Although this total of 17.4% is not very different from the 18.9% reported in **Table 1**, it is calculated on a different basis and is likely lower, perhaps around 13%.[37] According to Commerce Department data (NIPA), earnings from abroad constitute about

[33] The negative rate for the investment in research and development (R&D) intangibles is due to the R&D credit and, unlike other tax rates, is quite sensitive to the real discount rate: low discount rates produce significantly larger negative rates. For example, at 5% real discount rate the firm level tax is -99%. Negative effective tax rates appear large because the effective tax rate is measured with the pre-tax return in the denominator and as this return becomes very small the negative tax rate becomes very large. An alternative way to think about these tax rates is how much the pretax return at no tax is reduced by the credit. The pretax return can be expressed as R/(1-t), where R is the after tax return and t is the effective tax rate. So a -99% rate means the pretax return is approximately half the after tax return (because t is a negative rate, the denominator is 1.99), a reduction of approximately 50% while a negative 63.3% rate reduces the pretax return to 60% of the after tax return, which is a reduction of 40%. The absolute reductions are quite similar with a larger reduction for the higher discount rate: 2.7 percentage points for a 7% discount rate and 2.5 percentage points for a 5% discount rate.

[34] The incentive effects of Section 179, which allows expensing of a certain dollar amount of equipment investment, with the dollar cap phased-out provisions provides a 0% firm level tax rate when under the dollar cap, increases tax burdens during the phase-out range, and then has no effect. The graduated rate structure is also phased out, providing the same types of reductions, increases, and no effects. The great majority of corporate output is produced by large firms subject to the 35% rate.

[35] Jennifer Gravelle, *Who Will Benefit from a Territorial Tax? Characteristics of Multinational Firms*, Proceedings of the National Tax Association 105th Conference, 2012, at http://www.ntanet.org/images/stories/pdf/proceedings/12/15_gravelle.pdf.

[36] Melissa Costa and Jennifer Gravelle, "Taxing Multinational Corporations: Average Tax Rates," *Tax Law Review*, vol. 65, issue 3 (spring 2012), pp. 391-414.

[37] The estimates in **Table 1** are designed to capture the marginal effect on a new investment, while the effective tax rate on foreign source income is measured as taxes divided by profits. Theory suggests that the average effective tax rate would be higher than the marginal effective rate, at least if measured in a steady state, because the time value of

21.7% of total corporate profits.[38] To consider its effects on the burdens of U.S.-owned investments, adjustments can be made using the earlier data indicating that the direct holdings of foreign firms were 79% of the value of portfolio holdings. These data together indicate that 21.2% of total earnings of U.S. firms are from foreign source income[39] subject to an overall effective tax rate of 17.4%. The total corporate tax rate also would be reduced by around a percentage point.

Thus, current tax treatment appears to favor foreign over domestic investment for U.S. multinationals (a marginal rate of 18.9% for domestic investment compared to a rate of approximately 13% for foreign investment), although the favoritism varies by country. Most large countries have effective tax rates similar to those in the United States,[40] so the lower tax rates may largely reflect profits lodged in low- or no-tax countries.

The total corporate rate includes taxes on shareholders and is relevant to the choice between equity investments in shares of stock and direct investment in a business. Two sets of assumptions with respect to the taxable shares of stockholders and tax rates on stockholders' income and the noncorporate sector are used—those outlined in the text and those used by CBO. Outside of intangibles the differentials between corporate and noncorporate investment are between 7 and 9 percentage points. Overall, the corporate sector has about the same effective tax rate as the noncorporate sector because it has more of the favorably treated assets, intangibles, and to a lesser extent equipment and public utility structures.[41] Those rates are closer together when considering the reductions due to lightly taxed foreign source income earned by U.S. corporations.

Debt-Financed Investments

Table 2 provides the calculations of effective tax rates assuming debt finance. As indicated in the table, in most cases taxes are negative: the tax structure subsidizes income rather than taxes income. Income from every asset in the corporate sector is taxed at a negative rate. Noncorporate

deductions is not fully captured. According to estimates in CRS Report R41743, *International Corporate Tax Rate Comparisons and Policy Implications*, by Jane G. Gravelle, average tax rates were 23%, 27%, and 30%, depending on the source. Taking the middle estimate, the marginal tax rate estimated here is only 70% of the total, whereas the marginal tax rate reported in that study included inventories and was estimated at 22%, indicating marginal effective tax rates at about 80% of the total. If the same ratio held for foreign investment, the effective rate would be 12% to 14%.

[38] Total corporate profits for 2014 were $2,072.9 billion, and income from direct investment abroad was $449 billion, so foreign source income is 21.7% of the side of domestic corporate profits. Total profits NIPA, Table 1.12, http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=1&isuri=1&903=53; Foreign earnings are at International Accounts, U.S. Direct Investment Abroad, http://www.bea.gov/iTable/iTable.cfm?ReqID=2&step=1#reqid=2&step=10&isuri=1&202=1&203=27&204=99&205=1,2&200=1&201=1&207=49&208=2&209=2.

[39] Because portfolio holdings were 26% of corporate stock of U.S. firms, direct holdings of foreign parent corporations was 20% (0.26 times 0.79). If Kusd is denoted as the domestic stock of U.S. firms, Kusf as the stock of foreign investments of U.S. firms, and Kfd as the domestic investment of foreign firms, then Kfd = .20 (Kusd +Kusf), and Kusf = 0,22 (Kusd +Kfd), these two equations yield Kusf =0.272 Kusd. Therefore, for U.S. stockholders 21.2% (.272/(1+.272)) of investment in corporate stocks are subject to foreign tax rates.

[40] See CRS Report R41743, *International Corporate Tax Rate Comparisons and Policy Implications*, by Jane G. Gravelle.

[41] The stock of intangible assets amount to 22% of the corporate sector assets but only 5% of the noncorporate sector's assets. Whereas nonresidential structures have the largest share in both sectors (32% in the corporate sector and 38% in the noncorporate sector), residential structures account for 1% of corporate sector assets and a third of noncorporate assets. Equipment is more important in the corporate sector (a 30% share) than the noncorporate sector (19%). Public utilities are largely confined to the corporate sector (15% compared with 4%). Discussions of business activities and estimates of capital stock by sector are in CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples.

assets using the base case assumptions are also subject to a negative tax rate, whereas some noncorporate investments have positive rates using the CBO assumptions.

The calculations do not include effective tax rates for owner-occupied housing, which is a separate sector and type of asset. The CBO study estimated the rate for owner-occupied housing at -3%.

Table 2. Effective Tax Rates on Debt-Financed Investments

(in percentages)

Asset Type	Corporate Firm	Corporate Total	Corporate Total (%) CBO Assumptions	Noncorporate	Noncorporate CBO Assumptions
Equipment	-38.8	-30.2	-11.2	-21.2	2.0
Public Utility Structures	-44.4	-35.4	-15.7	-24.1	-1.6
Other Nonresidential Structures	-27.5	-19.6	-2.2	-12.9	9.8
Residential Structures	-38.9	-30.3	-11.3	-20.1	2.1
Intangibles					
R&D Intangibles	-701.4	-651.5	-542.1	-371.1	-420.4
Advertising Intangibles	-87.1	-75.5	-50.0	-51.7	-30.3
Other Intangibles	-87.1	-75.5	-50.0	-51.7	-30.3
Total	-53.5	-44.0	-23.0	-20.6	2.4

Sources: Congressional Research Service. See CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples for method of computation and assumptions. The estimates in that report do not reflect the 3.8% tax on investment income, the foreign withholding tax, or the R&D credit, which are incorporated here. All estimates assume a nominal interest rate of 7.5% and an inflation rate of 2%. For the corporate firm, the discount rate for determining the pretax return is 7.5%*(1-0.3414)-2%, and that pretax return is compared with the real interest rate of 5.5% for firm level taxes. For corporate total taxes, the after tax return for creditors under the assumptions outlined in the text, which has 19% of interest income subject to tax at a rate of 24%. For the CBO assumptions, the taxable share is 52.3% and the rate is 27.4%. For the noncorporate sector the same assumptions about the tax rate of the firms are made as in **Table 1**, the share of debt taxed and rates are the same as the corporate sector under one assumption. Under the CBO assumption the share of debt taxed in the noncorporate sector is 76.3% and the rate is 27.4%. (All estimates use a 7.5% nominal interest rate and a 2% inflation rate. CBO's estimates in their study were based on 6.8% and 2.4% rates. The estimates are largely insensitive to the real discount rate, although not to the inflation rate.)

When tax rates start to become large negatives, as with debt-financed investments or with R&D investments, they can be more difficult to interpret. The large negative rates occur because effective tax rates are calculated assuming the after tax rate of return is fixed, and taxes cause the pretax return to vary. Tax rates are calculated as a share of the pretax return. As noted earlier, when tax subsidies become very large the pretax rate of return becomes very low, causing the tax subsidy as a percentage the pretax return to become very large, and in fact to approach infinity as the pretax return approaches zero.

An alternative way of expressing the effect of taxes (and one that is used in welfare analysis) is the tax wedge, which is the addition (or reduction) in the after tax return to achieve the required pretax returns that results from taxes. It is measured as t/(1-t). Compare the overall firm level tax. In the equity case, it is 19.7% and in the debt case, -53.5%. The respective tax wedges are 24.3%

and -34.9%. That is, the tax system increases the required return to break even by 23% in the equity case, but reduces it by 35% in the debt case. Tax wedges when tax rates become highly negative provide better information about the magnitude of distortions. For example, the tax rate for research is -63.3% for equity investment and -701.4% for debt investment. Expressed as tax wedges, they are -38.7% and -87.5%. These numbers indicate that returns from investment are lowered by about almost 40% due to the tax system for equity and close to 90% for debt.

The tax rates (or wedges) for the firm level investments capture the two elements that cause debt to be subsidized. The first is deducting from income the nominal interest rate (which includes inflation) rather than the real interest rate. In the case of the estimates in **Table 2**, the nominal interest rate is 7.5% and the real interest rate (after subtracting inflation of 2%) is 5.5%. The second is that tax on earnings is scaled back by tax preferences, whereas the deduction for interest is not. Without these two elements, the tax rate on debt-financed investment would be zero. (Note also that the relative value of preferences such as accelerated depreciation can be altered because discounts rates are much lower for debt than for equity).

Table 2 also shows that debt-financed noncorporate investment is taxed at a higher rather rate than debt-financed corporate investment, a reversal of the equity finding. That is, corporate debt-financed investment has a larger subsidy than noncorporate debt-financed investment. In the base case in which the assumptions about creditors' tax burdens are similar, the tax wedges are -31% for the corporate sector and -17% for the noncorporate sector. The difference is due partly to the mix of assets but also to the statutory tax rate; the higher the firm's statutory rate, the larger the subsidy. The benefits are smaller with CBO's assumptions (largely because of the greater share of taxable interest to creditors), but the differences in tax wedges (-19% and 2%) are about the same.

Effective Tax Rates for Investments Financed with Both Debt and Equity

As the preceding analysis indicates, corporations are more heavily taxed on equity investment than are firms in the noncorporate sector, but are more favored in the case of debt finance. **Table 3** provides a combined overall tax rate. The results indicate that the overall effective rates are higher for structures and equipment, although the differences are not large, especially in the case of the CBO assumptions in which the noncorporate sector relies less on debt. Thus the corporate debt advantage significantly offsets the penalty for equity. Overall tax rates in the corporate sector are lower than in the noncorporate sector because of tax preferences for intangible investments.

Table 3. Effective Tax Rates on Investments Financed with Equity and Debt

(in percentages)

Asset Type	Corporate Firm	Corporate Firm CBO Assumptions	Corporate Total	Corporate Total CBO Assumptions	Noncorporate	Noncorporate CBO Assumptions
Equipment	11.1	12.8	14.8	19.9	9.7	19.3
Public Utility Structures	11.3	13.2	15.0	20.2	9.9	19.6
Other Nonresidential Structures	19.2	20.8	22.6	27.2	16.5	26.5
Residential Structures	15.2	17.1	18.7	23.7	13.1	23.0
Intangibles						

Asset Type	Corporate Firm	Corporate Firm CBO Assumptions	Corporate Total	Corporate Total CBO Assumptions	Noncorporate	Noncorporate CBO Assumptions
R&D Intangibles	-116.0	-107.9	-106.90	-91.3	-105.8	-91.2
Advertising Intangibles	-16.7	-14.9	-11.9	-5.1	-11.4	4.7
Other Intangibles	-16.7	-14.9	-11.9	-5.1	-11.41	4.7
Total	5.7	7.8	9.6	15.1	11.8	21.8

Source: CRS calculations.

Notes: The discount rate is the weighted average of the equity and debt returns discussed in **Table 1** and **Table 2** and the after tax returns are also the weighted average. The basic estimates assume 36% of investment is financed by debt; the CBO assumptions are 32% for the corporate sector and 29% for the noncorporate sector.

Treatment of Retained Earnings and Dividends

One consequence of the classic method of taxing corporate income is that it creates an incentive to retain earnings because capital gains and dividends are treated differently. This effect is diminished currently. After many years of lower rates on capital gains than on dividends, tax rates on dividends and capital gains are set at the same levels. However, a favorable treatment of capital gains still exists, because capital gains taxes are not due until gains are recognized and tax is not paid on gain assets passed on at death. Estimates suggest that about half of gains are never taxed.[42] At a 15% tax rate, overall, capital gains would be taxed on average at around 7.5% (because half is taxed at 0% and half is taxed at 15%). The effect is further diminished because a large fraction of the firm's stock is held by tax-exempt or foreign investors. As discussed previously, foreign shareholders account for about a quarter and pay an effective U.S., withholding tax rate of around 6% on dividends, with no tax capital gains. These amounts could eventually be taxed (and credits allowed) in the country of ownership, although evidence suggests that 20% or more of these dividends are paid to foreign tax-exempt investors. More importantly, about half of corporate stock is owned by tax-exempt investors when there is no differential between taxes. Thus the aggregate overall tax rates are reduced by more than half when a firm considers all shareholders.

Effects on Realization of Gains

A final distortion that results from the classical system of taxation is the incentive not to realize gains because capital gains are not taxed until the stock is sold. The gain in the value of stock, over time and in the aggregate, should reflect the value of retaining earnings. If corporations were taxed as pass-throughs, this gain would be taxed as it accrues. As with effects on payout ratios, this effect is limited because over half of the gains are realized by tax exempt entities, either domestic or foreign, and there is no withholding on capital gains.

[42] See discussion in CRS Report R44242, *The Effect of Base-Broadening Measures on Labor Supply and Investment: Considerations for Tax Reform*, by Jane G. Gravelle and Donald J. Marples. CBO has a similar assumptions. See CBO, Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

The magnitude of this effect depends on the responsiveness of realizations to the tax rate. There has been considerable variation in estimates of capital gains realization responses, although these effects may be quite limited because about half of gains are realized even in the presence of both taxes and trading costs.[43]

Shareholder capital gains on corporate stock is about a third or less of total capital gains, and thus an integration plan that eliminated or reduced this effect would only partially alleviate the distortion from taxing gains on a realization basis.[44]

Summary of Differential Effective Tax Rates

The analysis above shows that tax differences between investment in the corporate and the noncorporate sectors exist, although they are not as large as those that do not take into account tax preferences and the mix of assets. Depending on the assumptions, the aggregate tax burdens may be quite similar. The effective tax rates show wider differentials between different types of assets than across sectors in some cases and large differentials between taxes on debt and equity. The effects on payout ratios are likely to be small given the equality between tax rates on dividends and capital gains and the importance of tax-exempt investors. The corporate structure continues to distort the realization of capital gains on corporate stock, although the magnitude of that effect is uncertain.

Methods of Addressing Corporate Tax Distortions

A number of approaches to integration or otherwise reducing the distortions caused by the corporate tax are possible. These approaches can be divided into three basic types: (1) full integration; (2) partial integration, which addresses only dividends; and (3) proposals that also address the treatment of interest. They also differ in other features including whether relief is provided at the firm level or the shareholder level, the administrative challenges, how tax-exempt and foreign shareholders are treated, how preferences are treated, and the potential revenue challenges. The revenue effects, administrative and compliance issues, and efficiency effects will be discussed subsequently.

Note that in the analysis of revenue and of efficiency effects, it is assumed that the tax treatment of U.S. shareholders of foreign firms is not changed, and that any attributions of income or payment of dividends taxed at ordinary rates, exclusions, or other changes, would be confined to stockholders of U.S. firms. Under some circumstances, such as those where tax rates are increased at the shareholder level in return for reduced tax at the corporate level, this treatment could be seen as appropriate. In cases where taxes at the shareholder level are eliminated, it might be desirable to eliminate them on shares of foreign stock to simplify tax laws.

[43] For a review of the evidence, see CRS Report R41364, *Capital Gains Tax Options: Behavioral Responses and Revenues*, by Jane G. Gravelle.

[44] According to the Internal Revenue Service (IRS) data for 2007, the latest year that was not affected by the recession, gains on the sale of corporate stock were 25% of total gains, and capital gains distributions were 9%. The latest data, for 2012, show corporate stock again 25% of total gains and capital gains distributions at 3%. See Janette Wilson and Pearson Liddell, "Sales of Capital Assets Data Reported on Individual Tax Returns, 2007–2012," Internal Revenue Service, *Statistics of Income Bulletin*, January 2016, at https://www.irs.gov/pub/irs-soi/soi-a-inca-id1604.pdf.

Full Integration

Full integration would eliminate one of the levels of taxation and apply both to dividends and retained earnings. Some approaches include taxing only at the shareholder level, some include taxing only at the corporate level, and some include a combination of both.

Taxing At the Shareholder Level: Partnership Taxation

Classic Partnership Taxation

The most comparable treatment to partnership taxation would be to impute corporate earnings to shareholders in the same way as a partnership treatment. It would probably not be possible to precisely allocate income because stocks change hands constantly. Therefore, the practical rule would be to allocate taxable income to shareholders of record at the time dividends are paid. Shareholders would pay taxes on them (unless dividends were a return of capital), and tax would be due on both the actual dividend paid and any earnings retained. Shareholders would increase the basis of their stock by the amount of income received less any distribution.[45] Losses would be passed through to shareholders to offset other income, although current law contains a restriction on passive loss deductions that would presumably apply.

In addition, tax preferences would be passed through to shareholders, and shareholders would receive their share of credits. For most tax-exempt shareholders, no tax would be paid at any level; thus, a significant revenue loss would occur. Nonprofits would be subject to an unrelated business income tax at 35% for any corporate earnings financed by debt. Foreign portfolio shareholders would, under the standard treatment of partnerships operating a business in the United States, be required to file a tax return and pay ordinary individual income taxes. Foreign parents of U.S. subsidiaries also would have to pay income tax because partnerships doing business in the United States would be subject to tax (because their income is effectively connected). Depending on the dividend policy of the firm, individuals could have tax liability in excess of income received, because retained earnings would be subject to tax. For example, if a firm's taxable income were $100, but only $20 was paid as a dividend, a shareholder in the 30% bracket would owe $30 on the $100 of earnings, an amount in excess of his or her dividend. If the full partnership rules applied, corporations would have to report each item of income and deduction and individuals would have to include those items in their tax returns.

Modified Partnership Taxation

The 1992 Treasury study, while not recommending a partnership system, described a system that could overcome many administrative, revenue, and policy objections to the classic partnership approach. This prototype would avoid some (although not all) of the complexities of the system by simply reporting an aggregate amount. Losses would not be passed through. Thus the taxpayer would have to report only corporate income as an aggregate amount on the tax return but not file a business income schedule.

The Treasury prototype also addresses the possibility of owing more tax than the amount distributed by requiring the corporation to withhold the corporate tax due and then provide it as a credit to shareholders. In the previous example, if the corporate tax was $35 (35% of $100), and a $20 dividend were paid, the shareholders would have $100 of income, a $30 individual tax due,

[45] The basis in the stock is the amount deducted when the stock is sold, and thus reduces future capital gains. The increase in the basis of the shares of stock is necessary to prevent the retained earnings from being taxed a second time as a capital gain.

and a $35 tax credit. The basis of stocks (the amount deducted from the sales price to determine capital gain) would be increased by the income allocated minus the corporate tax credited and the dividend because the value of the stock would be expected to rise by this amount, which is the after tax earnings retained by the corporations.

The Treasury prototype also made this credit nonrefundable to tax-exempt shareholders and refundable only by treaty agreement to foreign shareholders.[46] This treatment would significantly reduce (but not eliminate) the revenue loss associated with integration. It would basically establish a shareholder level tax on taxable individuals and a corporate level tax on tax-exempt investors, while applying little or no U.S. tax for some foreign shareholders. There would still be a revenue loss because taxable shareholders would pay less tax than they did before, as would foreign shareholders if allowed refundable credits by treaty.

In their prototype, the Treasury allowed preferences to be largely passed through to shareholders, although some types of preference pass-through would be incomplete. Basically, the major preferences for domestic income in the form of deferral (e.g., accelerated depreciation) would be automatically passed through to the shareholder through allocations based on taxable income; the shareholder would benefit from the timing. But some gain would be realized when stock is sold if economic profits exceed taxable income. Exclusions under the prototype would be automatically excluded as well, and the prototype also would increase the basis in the stock by the amount of the exclusion so it would never be taxed. Credits would be allowed directly but would not increase the basis of the stock, so that the credit would be taxable capital gains income.

How this system would work might be best explained by an example. Suppose corporate taxable income is $100, but profits before tax include an additional $10 of excluded income (such as tax-exempt interest) and an additional $20 of profit due to deferred income (such as accelerated depreciation and expensing). The firm also has a $10 credit (for example from the research credit). Total profits before tax, therefore, are $130. The withholding tax is $35, reduced by $10 of credits to $25. The average effective corporate withholding rate in this example is $25/$130, or slightly over 19%. If $20 is distributed, the value of the stock should rise by profits minus tax payments and dividends or $85 ($130 minus $25 of tax and minus $20 of dividends). Under the prototype the shareholder would receive an allocation of $100 and a credit of $35, paying a tax of $30. The shareholder would be left with $25 in cash ($20 in dividends and $5 in excess credits). The shareholders' basis would increase by $55: $65 for the allocation of after corporate tax, reduced to $45 after subtracting the dividend, but increased by the $10 of excluded income to $55. Thus, the stock's value increases by $85 and the basis increases by $55. If the shareholder were to sell the stock, the capital gain would be $30, the sum of the deferred income and the credit.

Although it would be difficult in practice to adjust the basis of stock for deferral (which would require measurement of an alternative economic recovery system), it would be possible to increase the basis for both the credit and the exclusion, leaving a gain tax only on the deferred income. Similarly, neither basis adjustment could be made, so that both the credit and exclusion, along with deferred earnings ($40), would be taxed when or if the stock is sold.

It would be possible to design a system that does not allow the flow through of exclusion and credit preferences.

[46] There may be an issue of whether the withholding tax can be imposed on foreign shareholders without allowing offsets because of U.S. tax treaties. Bret Wells in "International Tax Reform by Means of Corporate Integration," forthcoming in the *Florida Tax Review*, Fall, 2016, argues that these withholding taxes are a new and dissimilar tax which would not conflict with treaty agreements to exempt dividends or reduce the tax to a lower rate. The paper can be found at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2766618.

Taxing at the Shareholder Level: Mark to Market

Another approach to integration is to repeal the corporate tax entirely, tax dividends and capital gains at ordinary rates, and mark the value of stock to market, that is, tax capital gains on the stock regardless of whether it was sold and increase the basis of the stock for the future. This approach would automatically eliminate preferences assuming that the market properly reflects economic profits. This regime would apply to publicly traded firms, whereas privately traded firms would receive pass-through treatment, which would be a much simpler proposition if not extended to public corporations. This proposal was not included in the Treasury study but has been made by some academics, including Joseph M. Dodge.[47] More recently, these ideas have been advanced by Eric Toder and Alan Viard.[48] Dodge acknowledges that one issue with his proposal is that private firms would still benefit from tax preferences. As seen in the previous analysis, however, private firms tend not to benefit from preferences as significantly as public ones because they may be more similar in asset distribution to noncorporate firms.

In the example above, the shareholder would receive a dividend of $20 and the stock market would rise by $110 ($130 minus $20). Thus the shareholder would pay 30% on both dividend and appreciation totaling $130. This tax would also apply to foreign source income of U.S. firms net of foreign taxes.

This system would eliminate preferences for publicly traded firms and simplify the law because it would depend on the market to determine income. Many tax reformers might see that as desirable, although some subsidies (such as those for research, which creates spillover benefits) might still be desirable. They could, however, be granted to firms via direct subsidies or refundable credits. The system would, however, retain subsidies for firms that are not publicly traded.

Aside from the differential treatment of preferences, the two major issues with this mark-to-market approach are the same as with the classic partnership approach: the failure to tax tax-exempt shareholders at any level and the imposition of tax when gain is not realized. It would not be possible to remedy these issues with withholding and nonrefundable credits as in the modified partnership approach. One option for the tax-exempt shareholder is to impose a tax on this income (an unrelated business income tax already applies for debt financed partnership income of nonprofits). If shareholders are faced with tax liability on gains, corporations might be expected to increase payouts, especially if they are tax-exempt investors. Alternatively, shareholders have the option of selling shares.

A modification of this approach discussed by economists Altshuler and Grubert is to tax capital gains only on realization but impose an interest charge that would offset the benefits of deferral of capital gains (with taxation at death).[49] The authors also caution that firms would still be required to measure income for allocation of income between the United States and other countries, in

[47] See for example, Joseph M . Dodge, "Combined Mark-to-Market and Pass-through Corporate-Shareholder Integration Proposal," *Tax Law Review*, vol. 50, spring 1995, pp. 265-369. Dodge also references earlier proposals of this nature including those of Victor Thuronyi and John McNulty.

[48] Eric Toder and Alan D. Viard, *Major Surgery Needed: A Call for Structural Reform of the U.S. Corporate Income Tax*, Tax Policy Center Working paper, Urban-Brookings Tax Policy Center, April 4, 2014, at http://www.taxpolicycenter.org/sites/default/files/alfresco/publication-pdfs/413090-Major-Surgery-Needed-A-Call-for-Structural-Reform-of-the-US-Corporate-Income-Tax.PDF.

[49] Harry Grubert and Rosanne Altshuler, "Shifting the Burden of Taxation from the Corporate to the Personal Level and Getting the Corporate Rate Down to 15 Percent," forthcoming, *National Tax Journal*, September 2016 https://www.aei.org/wp-content/uploads/2016/04/Grubert-Altshuler-Shifting-the-Burden-06-01-16.pdf.

which disputes between authorities are settled by negotiation. Their proposal applies the interest charge regime to all capital gains and retains a 15% corporate tax.

Taxing Corporate Income at the Corporate Level

An alternative to taxing shareholders and eliminating the corporate level tax is to impose the corporate level tax and eliminate taxes on dividends and on capital gains from corporate stock. A step in that direction has been taken by lowering the rates on capital gains and dividends. This approach would lose some revenue, but would simplify the tax system.

Probably the major objection to this approach is that the firm level tax determines the allocation of investment for multinational firms both U.S. parented and foreign parented. Because the shareholders pay taxes regardless of location, a reduction in the firm level tax would reduce the incentive to invest in and shift profits to low tax jurisdictions abroad rather than in the United States, whereas a reduction or elimination of shareholder taxes would not.

Taxing Dividends at the Shareholder Level and Retained Earnings at the Corporate Level

The final full integration proposal would tax dividends to shareholders by allowing a corporate dividend deduction, while eliminating capital gains on corporate stock. The revenue loss arising from tax exempt shareholders could be addressed by a nonrefundable corporate withholding tax in a similar fashion to the modified partnership approach. This treatment is identical to the partial integration dividend deduction proposals discussed below, with the added effect of eliminating capital gains taxes.

Partial Integration: Dividend Relief

The second major category of proposals removes the double tax on corporate income only for dividends. Addressing dividends avoids the imperfections in assigning all corporate income to shareholders as in the modified partnership system or taxing gains on an accrual basis. As with full integration, the principal alternatives are to tax at the firm level or individual level.

Taxing at the Shareholder Level: Dividend Deductions, Imputation Credit, and Withholding Tax

Several approaches allow dividend relief at the corporate level, although the differences are sometimes mostly in name. A dividend deduction alone would allow the firm to deduct dividends paid to shareholders at ordinary rates. The imputation credit method does not allow a dividend deduction, but provides a credit to the shareholder. The dividend deduction with a dividend withholding tax allows a deduction, but imposes a withholding tax that can be claimed by the shareholder as a credit (much as is done with wage withholding). The imputation credit and the dividend deduction with withholding tax and credit produce the same result when the other rules (such as scope and refundability of the credits) are the same. As discussed below, imputation credit and dividend deduction may have different implications for financial reporting.

Dividend Deduction

A simple way to eliminate the double tax on dividends is to allow firms to deduct dividends (just as they do interest) while taxing dividends to shareholders at ordinary rates. According to Chairman Orrin Hatch, the Senate Finance Committee has been studying the dividend deduction

approach.[50] Although this system is simple, it has a number of potential drawbacks: Most notably, there would be a significant revenue loss to the U.S. economy because tax-exempt investors would pay no tax at any level and foreign investors would pay very little. In addition, there would be an incentive for firms to pay dividends, rather than the current incentive to retain earnings. Finally, as discussed below, there is an issue when income tax benefits from sufficient preferences that dividends exceed income subject to corporate tax.

Imputation Credit or Deduction with Withholding Tax and Credit

Some of these issues with the dividend deduction can be addressed by adopting the same type of system using the corporation to withhold taxes as in the modified partnership treatment. This system, sometimes referred to as an imputation credit system, and other forms of shareholder credits for dividends, by whatever name, has been widely studied, in the 1992 Treasury Department study and elsewhere.[51] Moreover, imputation credit systems for dividends have been used in the past in several European countries and are currently in effect in Australia and New Zealand. As is the case of full imputation, the major issues are the treatment of tax-exempt and foreign investors and the pass-through of preferences.[52] Pensions in Australia are subject to tax, so the issue of whether credits are refundable is less important in its system; dividend credits are limited to income subject to tax.

The difference between a credit for corporate taxes paid and a withholding tax with credit is basically in name only. One technically does nothing to the corporate tax but enacts credits for shareholders, the other provides a dividend deduction but imposes a withholding tax at the corporate rate and a credit for shareholders. Other issues that make a difference are treatment of preferences and whether credits are refundable.

These dividend relief approaches do not allow pass-through of preferences if all dividend credits to shareholders have to reflect income on which U.S. tax is paid. The two approaches to achieving this result are (1) the credit limitation and (2) the compensatory tax. Under the credit limitation approach, if dividends are larger than the income subject to U.S. tax, shareholders will receive only partial credits (e.g., if half is from taxed income and half from preference income, only credits at half the corporate rate would be allowed). The alternative approach is a compensatory tax, which requires an additional corporate-level withholding tax to be assessed when a dividend is paid out of income not subject to tax. If the dividend deduction with a

[50] See statement of Chairman Hatch at the May 16, 2016 hearing on Integrating the Corporate and Individual Tax Systems: The Dividends Paid Deduction Considered, at http://www.finance.senate.gov/hearings/integrating-the-corporate-and-individual-tax-systems-the-dividends-paid-deduction-considered.

[51] U.S. Department of Treasury, *Integration of The Individual and Corporate Tax Systems*, at https://www.treasury.gov/resource-center/tax-policy/Documents/Report-Integration-1992.pdf. This system was also the subject of a 1993 study sponsored by the American Law Institute and authored by Alvin C. Warren, Jr, *Integration of Individual and Corporate Income Taxes*. Both studies and an introduction are in Michael J Graetz and Alvin C. Warren, Jr., *Integration of the U.S. Corporate and Individual Income Taxes: The Treasury Document and American Law Institute Reports* (Arlington, VA: Tax Analysts, 1998). For more recent articles that discuss shareholder imputation credits, see Harry Grubert and Rosanne Altshuler, "Shifting the Burden of Taxation from the Corporate to the Personal Level and Getting the Corporate Rate Down to 15 Percent, " Forthcoming, *National Tax Journal*, September 2016, at https://www.aei.org/wp-content/uploads/2016/04/Grubert-Altshuler-Shifting-the-Burden-06-01-16.pdf, and Michael J. Graetz and Alvin C. Warren, "Integration of Corporate and Shareholder Taxes,"" Forthcoming, *National Tax Journal*, September, 2016, at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2780490.

[52] The Australian system allows credits to shareholders up to the amount of income that has been taxed in Australia, with the same effect as the proposal discussed by Treasury and the proposal analyzed in the revenue section. Australian subsidiaries of foreign firms are excluded.

withholding tax is to be a true withholding tax, then it would appear that the compensatory tax method would be consistent with a dividend deduction or withholding tax approach.

The possibility of current dividends exceeding the income subject to U.S. tax is significant: Grubert and Altshuler estimate that about half the worldwide income of U.S. multinational firms is from firms in this circumstance, with high dividends compared with income subject to U.S. tax. Unlike the modified partnership prototype, preferences including credits, are not passed through. Thus foreign source income with foreign taxes that are offset by the foreign tax credit would be considered nontaxed income and thus disallowed dividend credits.[53]

Another issue is how these provisions interact with treatment of tax-exempt and foreign shareholders. Assuming tax credits are not refundable to these shareholders, a compensatory tax where dividends exceed income subject to tax could increase burdens for tax-exempt shareholders, because it would impose a tax where none existed before.[54] It would also increase burdens if credits were refundable only against the tax on dividends rather than all income for taxable shareholders. A tax refundable only against the tax on dividends would tax at a minimum of the corporate tax rate or the individual rate, and a compensatory tax could increase the burden.

Some analyses also discuss a dividend reinvestment plan (DRIP) element in which firms could issue deemed dividends that were reinvested in the firm; they would receive the dividend relief on reinvested earnings (the deemed dividends would increase the basis of the stock). This treatment would be beneficial for firms paying cash dividends that were less than the income subject to U.S. tax.

Although the preference provision limits shareholder credits to amounts subject to U.S. corporate-level tax, all provisions have a stacking order, in that dividends are first paid out of income subject to tax, which is beneficial because it leaves much of the retained earnings potentially not subject to any level of tax. This issue is lessened with nonrefundable credits, especially if nonrefundability applies to foreign shareholders.

As analysts have pointed out, there may be some non-tax differences between the shareholder imputation credit approach and the dividend deduction or withholding tax method. Professor Edward Kleinbard notes that book accounting would not treat a withholding tax as a corporate tax, increasing earnings and profits, and allowing income to be repatriated to pay dividends without reducing profits because of the tax payment.[55] In analysis by Alvin Warren, the author noted that dividends would be reported net of corporate tax in an imputation credit approach and gross of tax in a dividend deduction or withholding tax approach.[56] The two approaches also might be perceived differently with an imputation credit seen as reducing individual tax liability (and possibly leading to no taxes paid by high-income individuals) and the dividend deduction as reducing corporate tax liability (and corporate effective tax rates). These differences exist despite

[53] Harry Grubert and Rosanne Altshuler, "Shifting the Burden of Taxation from the Corporate to the Personal Level and Getting the Corporate Rate Down to 15 Percent, "Forthcoming, *National Tax Journal*, September 2016, at https://www.aei.org/wp-content/uploads/2016/04/Grubert-Altshuler-Shifting-the-Burden-06-01-16.pdf.

[54] Some approaches would make all credits refundable but impose a tax on investment income of tax-exempt investors. In some versions not only dividends but capital gains would be taxed at ordinary levels. See the 1993 American Law Institute article authored by Alvin C. Warren, Jr., "Integration of Individual and Corporate Income Taxes," and Michael J. Graetz and Alvin C. Warren, "Integration of Corporate and Shareholder Taxes," Forthcoming, *National Tax Journal*, September 2016, at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2780490.

[55] Edward D. Kleinbard, "The Trojan Horse of Corporate Tax Integration," *Tax Notes*, August 15, 2016, pp. 957-978.

[56] See the 1993 American Law Institute article authored by Alvin C. Warren, Jr., "Integration of Individual and Corporate Income Taxes," in Michael J Graetz and Alvin C. Warren, Jr., *Integration of the U.S. Corporate and Individual Income Taxes: The Treasury Document and American Law Institute Report* (Arlington, VA: Tax Analysts, 1998), p. 643.

there being no economic difference except via the choice of a credit limit rather than a compensatory tax with nonrefundable benefits.

Taxing at the Firm Level: Dividend Exclusion

The firm-level tax approach would allow dividends to be excluded from shareholders' income and thus only the corporate tax would apply. As with the dividend deduction, preferences could be dealt with by allowing only excluded dividends to the extent of income on which corporate tax was paid.

This approach was one of the two proposals recommended for consideration in the 1992 Treasury study (the other a Comprehensive Business Income Tax, or CBIT, discussed subsequently). Such a proposal was made by the Bush Administration in 2003 and adopted in the Senate, but the House bill adopted the present regime of reducing the tax rate on dividends and capital gains to 15%, and the House version prevailed (Jobs and Growth Tax Relief Reconciliation Act of 2003, P.L. 108-27).

Approaches Also Addressing Debt

Some integration proposals have also encompassed debt. One proposal was a full integration proposal that taxed only the firm level, the CBIT. The other is a dividend deduction proposal that would impose withholding taxes with credits on interest as well as on dividends.

Comprehensive Business Income Tax

The 1992 CBIT proposal continued the present corporate tax, disallowed interest deductions, and eliminated dividend and interest tax at the shareholder or creditor level. The proposal addressed preferences by imposing a compensatory tax if interest and dividends exceeded the amount of taxed income. Several options for the treatment of capital gains at the shareholder level, including exclusion, a preferential rate, and setting up a DRIP account and allowing deemed distributions to absorb all taxable income (with compensatory tax if needed), were all discussed.

This plan in general would impose one level, the corporate-level tax, on earnings from both debt and equity.

The CBIT proposal extended to noncorporate businesses as well, so that the only remaining forms of taxable interest were from home mortgages, federal government debt, and foreign source income.

Including Interest in Dividend-Relief Proposals

Interest could be treated in the same way as dividends in dividend-deduction proposals, by imposing a withholding tax on interest as well as dividends and providing nonrefundable credits. News reports indicate that this feature may be included in the Senate Finance Committee integration proposal.[57] Compensatory taxes could be used if interest and dividends exceeded taxable income. This treatment would increase the tax burden on debt by effectively disallowing interest deductions for payments made to tax-exempt or largely tax-exempt creditors.

[57] Andrew Velarde, "Hatch Integration Plan May Have 35 Percent Interest Withholding," *Tax Notes Today*, April 13, 2016.

Note About Mechanics of Debt Proposals

As noted above, it would be difficult in practice to treat interest in the same way as dividends or corporate income because an enormous amount of debt is filtered through financial intermediaries and in turn to ultimate creditors that are a mix of taxable and tax-exempt creditors. The Treasury examined how to deal with these issues in 1992 as part of its CBIT proposal that taxed only at the corporate level. It excluded interest from, and disallowed interest deductions for both corporate and noncorporate businesses. Its proposal addressed financial intermediaries such as banks by excluding interest income from other CBIT entities and disallowing interest deductions. That way, all interest from the banks could be excluded. Normally this would lead to losses rather than profits given other types of lending, a situation that would be worsened for treatment limited to corporations. The Treasury relied on these firms to substitute loan fees for interest to avoid continual losses for tax purposes.

Revenue Concerns

Revenue impacts are an important consideration in any tax reform proposal. This section examines whether proposals are likely to lose revenue and under what circumstances. Note that these revenue estimates are approximations. Their purpose is to determine general magnitudes, which will be informative of the feasibility of various proposals if revenue neutrality is also a goal. The first step is to estimate current revenues, which then can be used as a base to compare proposals. Subsequent sections present estimates of the effects of full integration options, partial integration options, and restrictions on debt. The full integration options are (1) the shareholder allocation with and without refundable corporate withholding taxes, (2) the mark-to-market proposal, and (3) taxation only at the corporate level. The partial integration options include (1) dividend deductions with and without refundability, (2) dividend exclusions, and (3) additional revenue reductions for dividend proposals if capital gains taxes are also eliminated

Current Tax Rates

It is necessary to estimate the average tax rate, which will be different from the marginal effective tax rate in **Table 1** because of timing effects.

The two steps in this process are measuring the tax paid at the corporate level and measuring the additional tax paid by shareholders. **Table 1** focused on domestic investment by U.S. firms. In considering revenue effects, two additional segments of the corporate tax base must be considered: the foreign source income of U.S. firms and the domestic investment of U.S. subsidiaries of foreign firms.

For the corporate-level tax rate for the domestic investment (whether U.S.-owned or foreign-owned firms operating in the United States), the estimate used is 27%, based on accounting studies of effective tax rates.[58] The remaining category, foreign source income of U.S. firms, pays

[58] See CRS Report R41743, *International Corporate Tax Rate Comparisons and Policy Implications*, by Jane G. Gravelle. As noted earlier, the average rates were 23%, 27%, and 30%, depending on the research study. This estimate is consistent with estimates derived from the National Income and Product Accounts. Domestic corporate income (from Table 1.10) was adjusted based on the reconciliation with IRS data in Table 7.16 to conform with the corporate tax base. These data were used to reduce NIPA profits by earnings not in the corporate tax base, primarily the earnings of the Federal Reserve, to reduce profits by state and local income taxes, and to increase them by capital gains. The measure was also reduced based on the share of income attributed to Subchapter S corporations based on IRS data. Revenues were based on IRS data and were reduced by auditing adjustments and the foreign tax credit. The rate varied over time. For the most recent year available, 2013, it is 21.6%. Likely, this rate is relatively low because of lingering

only a residual 3.3% U.S. tax on income and 14.1% foreign tax, which is not collected by the U.S. Treasury, but does reduce income subject to shareholder taxes.

Based on estimates reported earlier, 65.2% of the base is U.S. source income earned by U.S. firms, 18.1% is foreign source income of U.S. firms, and 16.7% is U.S. investment by foreign firms. The overall rate for U.S. firms, including both domestic and foreign source income (accounting for 83.3% of total income), is a worldwide total of 24.9%, including foreign taxes paid, and U.S. tax on worldwide income is 21.9%. Including all sectors (i.e., adding in the income of U.S. subsidiaries of foreign firms), the U.S. corporate level tax is 22.7%.

The additional shareholder taxes depend on the distribution among shareholders of both U.S. firms and U.S. subsidiaries of foreign firms. The latter are presumably 100% owned by foreign shareholders and the former 25% by taxable individuals, 50% by tax-exempts, and 25% by foreign shareholders.

Individual shareholders account for 25% of U.S. firm shares and 20.8% (25% times 0.833) of all shares including U.S. subsidiaries of foreign firms. Foreign portfolio shareholders also account for 25% of U.S. firm shares and 20.8% of the total of all shares. Foreign parents of U.S. subsidiaries account for 16.7% of total shares. The remainder of ownership is accounted for by tax-exempt investors, who own 50% of U.S. shares and 41.7% of overall shares.

The additional shareholder taxes add another 3 percentage points for a total tax rate of 25.7%.[59]

Effective tax rates for current law and for the options, as well as the percentage reduction in revenue are shown in **Table 4**. The calculations for each proposal are explained in the respective section.

Table 4. General Magnitude of Effective Tax Rates and Revenue Loss from Integration Approaches

(in percentages)

Tax Regime	Effective Total Corporate Tax Rate (%)	Reduction in Corporate Tax Revenues (%)
Current Law	25.7	
Shareholder Allocation, Refundable Credits	2.5	102
Shareholder Allocation, Nonrefundable Credits	22.6	14
Dividends and Mark to Market Gains at Ordinary Rates	6.5	85
Mark to Market with 35% Tax on Exempt Shareholders	24.0	6
Corporate Level Tax Only	22.7	13

effects of the recession and measures undertaken to address it, primarily bonus depreciation. For 2007, the last year before the recession and bonus depreciation, the rate was 30%.

[59] Individual shareholders pay (net of corporate level taxes) 16.8% on dividends and 17.6% on the half of retained earnings that are realized as capital gains, or (0.168*(4/7) + 0.176*0.5*(3/7))(1-0.249), on their share of income. Foreign portfolio holders of stock in U.S. firms pay 0.034*(1-0.249) on their share. Foreign parents of the U.S. subsidiaries pay 0.034*(1-0.27) on their share. This analysis does not compute a set of estimates using CBO individual tax rates (18.4% for dividends, 21.3% for capital gains, and 32.3% for ordinary tax rates for shareholders) in part because the differences are negligible. For example, the corporate total average effective tax would rise from 25.7% to 26.0%. For the shareholder allocation with refundable credits the tax rate, estimated below at 2.5%, would be 3.2% using CBO tax rates. The revenue loss would be 101% of the corporate tax revenues rather than 102%. Another reason for using lower rates is that for discrete changes, even though income from corporate shares is marginal for many shareholders, those with large holdings may have average tax rates that are lower than marginal tax rates.

Tax Regime	Effective Total Corporate Tax Rate (%)	Reduction in Corporate Tax Revenues (%)
Dividend Deduction, Refundable Credits	5.8	88
Dividend Deduction, Nonrefundable Credits	23.6	10
Dividend Exclusion	24.0	8
Additional Reduction from Eliminating Capital Gains Tax with Dividend Deduction	1.8	7

Source: CRS as explained in the text.

Full Integration Options

Shareholder Allocation With and Without Refundability

Consider first, the full integration option. The first step is determining the marginal tax rate of taxable shareholders if they are taxed at ordinary tax rates. CBO estimated that the tax rate on short-term gains taxed at the ordinary rate is 32.3%.[60] Because CBO's capital gains tax rate is higher than the dividend rate, this rate was adjusted downward to reflect a weighted average of dividends and retained warnings using its measure, by 1.7 percentage points. Then it is adjusted to reflect the difference between the estimated rates by CBO and those estimated by CRS, because the latter would be closer to the average rate. That reduction is 2.3 percentage points. Overall, therefore, the analysis uses an estimated marginal rate of 28%.

If the shareholder allocation prototype allowed for refundable credits for the corporate tax, then the effective tax rates would be the individual rates (times their shares) for each type of shareholder multiplied by the ratio of the firm's effective tax rate to the statutory rate (to measure the difference between the economic base and the taxable base) minus the foreign tax credit. The foreign tax credit is taxes on foreign income divided by total income, or 0.141*0.181/0.833, or 3.1%. For individual shareholders, the rate would be 0.28*(0.249/0.35)-0.031, or 16.8%. For the foreign portfolio holder, the rate would be 0.034*(0.249/0.35)-0.031, or -0.6%. The tax-exempt shareholders would get the foreign tax credit, or -3.1%. The foreign parents of U.S. subsidiaries would pay 0.034(0.27/0.35), or 2.6%. (In each case, the corporation will still pay the firm-level tax, but the shareholders will get a credit.) Multiplying these tax rates by their shares (20.8%, 41.7%, and 16.7%) yields an overall rate of 2.5%.

This example shows how full partnership taxation of corporate source income does not appear feasible without a significant loss of revenue (more than 100% of the corporate tax because of refundable credits). Even if all of the preferences were eliminated, including the foreign tax credit, the tax could be small because individual taxable shareholders account for ownership of only a fifth of total income.

If instead, nonrefundable credits were allowed and foreign shareholders could not benefit (as well as tax-exempt shareholders), the corporate rate plus shareholder rate would continue to be paid for them. Assuming individual shareholders had enough outside income to absorb the credit (because the corporate statutory tax rate is higher than 28%), they would pay the same rate as in

[60] Congressional Budget Office, *Taxing Capital Income: Effective Marginal Tax Rates Under 2014 Law and Selected Policy Options*, December 2014, at https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49817-Taxing_Capital_Income_0.pdf.

the refundable credit case. The overall effective tax rate is 22.6%, which is a 14% reduction in corporate revenues.

Mark-to-Market

The mark-to-market option reflects the shareholder's tax rate, that is, 28% for individual shareholders and 3.4% for foreign owners times the income base. The base would be reduced by 3.1% foreign taxes paid and would reduce the base to (1-0.031) for U.S. firms. Mark to market has a higher effective tax rate because economic income rather than taxable income is the base. Stock that is not publicly traded is taxed on a flow through basis, which results in a 0.3 percentage point lower tax rate and a 1.4% larger revenue loss.[61] U.S. subsidiaries of foreign firms are also not publicly traded. Because the effective rate for flow through is 77% of the rate for accrual, the tax rate would be 0.34*0.77. Overall, the effective tax rate is 6.5% and the reduction in revenue is 85%.

Mark to market and the economic income reflected in the base would also be larger because it would not be reduced by the deduction of the inflation portion of the interest rate, an adjustment not included in financial reports or NIPA data. This portion is difficult to estimate, but calculations suggest it would increase the tax rate on the currently measured base to 7.5%, leading to a 71% reduction in revenues.[62]

The mark-to-market option would have less of a revenue cost if tax-exempt firms or foreigners were assigned a tax with capital gains accruals taxed on the accrual. For example, consider imposing a 35% unrelated business income tax on tax-exempt firms. The effective tax rate would rise to 21% and the revenue loss would be only 23%, before adjusting for the deduction of the inflation portion of interest. After that adjustment, the tax rate is 24% for a 6% loss in revenue.[63]

Corporate-Level Only Tax

Imposing a tax at the corporate level only would lead to an effective corporate tax of 22.7%, and a revenue loss of 13% of corporate revenue (0.255-0.227)/0.227. It is similar to the effect of the nonrefundable partnership option, because it losses only the relatively small shareholder tax.

This final full integration option involves taxing dividends at the shareholder level and exempting capital gains, and it is best addressed in the next section that assesses the cost of dividend relief plans.

---

[61] According to Federal Reserve data, domestic equities (excluding intercorporate debt) are 81% of corporate equities (i.e., exclude foreign equities owned by U.S. residents); and of those, 68.9% are publicly traded, 8% are Subchapter S corporations, and the remainder are closely held C corporations. Thus the share of U.S. corporations (the data exclude intercorporate holdings) is 4.0/(68.9 +4.0), or 5.9%. Assuming that this share is in the individual taxpayers segment, it is 23.6% of the individual sector (5.0/25). Assuming typical preferences, the effective tax rate is 77% of the rate on an accrual basis. The individual share is reduced by 0.28*0.236*.33 (foreign taxes are assumed not to be paid on this income) income net of foreign taxes. See Richard E. Ogden, Damian R. Thomas, and Missaka Warusawitharana, Corporate Equities by Issuer in the Financial Accounts of the United States, Board of Governors of the Federal Reserve, FEDS Note, March 29, 2016, https://www.federalreserve.gov/econresdata/notes/feds-notes/2016/corporate-equities-by-issuer-in-the-financial-accounts-of-the-united-states-20160329.html and Federal Reserve Statistical Release, Financial Accounts of the United States, Z.1, June 9, 2016, http://www.federalreserve.gov/apps/FOF/Guide/L223.pdf.

[62] Based on the discussion of debt, below, the total interest deduction accounts for around 20% and the inflation portion is 26.7% (.02/.075) of that amount. Multiplying that result by the ratio of the tax rates (6.5/35) results in an additional percentage point.

[63] The increase would be calculated by multiplying 20% by 26.7% by (.24/.35).

Partial Integration Options

This section examines the cost of dividend relief plans, including an exclusion and withholding tax with refundable credits, one without refundable credits, and a dividend exclusion.

The cost of dividend relief depends on the rules regarding treatment of preferences and whether dividend reinvestment plans (DRIPs) are included. In these analyses, favored dividends are assumed to be out of income subject to U.S. tax. DRIPs are also assumed, which means that firms should distribute dividends up to the amount needed to cover the tax. For dividend relief that requires dividends be paid out of income already taxed, in some cases sufficient tax will have been paid to cover the dividends, and in other cases, some of the dividends currently paid will not be eligible.

With DRIPs, the assumption is that dividends will be paid adequate to cover the tax. For U.S. firms, the effective U.S. tax rate is 27% for domestic income but only 3.3% for foreign source income, leading to an overall 21.9% effective tax rate. That is equivalent to a 35% tax applying to 62% of income. Under a dividend relief proposal, the cash dividend paid will be grossed up (divided by 1 minus the statutory tax rate) for tax purposes. To equate the withholding tax (0.35 times the cash dividend divided by [1-0.35]) to the original U.S. tax liability of 0.35 times 0.62, the cash dividend must be 0.62 times (1-.35). For U.S. subsidiaries of foreign parents, it would be 0.77*(1-0.35). The dividend would be grossed up (withholding taxes added back), so, the taxable dividend would be 0.62 (0.77 for a U.S. subsidiary of a foreign firm). This is a similar cash dividend to what is being paid currently (40.3% compared with 42%). The remaining cash that would be retained earnings by the firm is 34.8% rather than 32.3%. The tax would be on income net of foreign taxes paid.

Dividend Deduction with Refundability

For the refundable dividend relief, the deduction will offset the corporate level withholding tax with a credit to shareholders that offsets the tax. Individuals will pay the individual rate on dividends, including cash dividends and reinvested dividends. The remaining share is taxed at the capital gains rate, and some portion is not realized (half is used because there is so little change).

The individual shareholder's tax rate would be 19.8% (0.28*0.62+0.176*0.5*0.348)(1-0.031). The tax on foreign shareholders of U.S. firms would rise to the effective dividend rate (5.9%) times 0.62 or 0.77. The result is a tax rate of 5.8%, and an 88% reduction in corporate tax rate.

Because dividend relief plans that allow DRIPs should leave no residual corporate tax, there is no double taxation from the capital gains tax.

Dividend Deduction Without Refundability

The tax would remain the same as paid by individual shareholders, whereas the corporate level tax would be added back to other taxes (21.9% for U.S. firms and 27% for subsidiaries of foreign parents). Given that there is no benefit to the credit system for U.S. subsidiaries of foreign parents, they presumably would not change their dividend behavior and would pay the same shareholder level taxes as in the past. The overall result is a 23.6% effective tax rate and a 10% revenue loss. Eliminating the capital gains tax would have the same effect as with refundability because tax-exempt and foreign shareholders do not pay capital gains taxes.

Dividend Exclusion

Assuming a dividend exclusion would be allowed only to the extent of income subject to U.S. tax, and assuming a DRIP, the individual investor would simply pay tax on half of capital gains, and no other shareholders would pay tax. Corporate tax would remain. The effective tax rate is 24.0% and the revenue loss is 8% of the corporate tax.

Additional Reduction from Eliminating Capital Gains Tax with Dividend Deduction

Dividend relief plans that allow DRIPs should leave no residual corporate tax; there is no double taxation. However, if, in addition to the dividend deduction, capital gains taxes on corporate stock were eliminated, tax rates would be reduced by 1.8 percentage point and 7% of corporate revenues. Eliminating the capital gains tax would have the same effect as with refundability because tax-exempt and foreign shareholders do not pay capital gains taxes.

Summary of Revenue Findings

The estimates in **Table 4** illustrate the important effects of the small share of stock held by taxable individual investors. If the corporate reform is to be revenue neutral, three proposals would lose such large amounts of revenue that there would be no feasible way to recoup them within the corporate tax. These include two full integration proposals: (1) the shareholder allocation with a withholding tax and refundable credits and (2) the taxation of dividends and gains marked to market to shareholders absent any other changes. Among dividend relief proposals, a dividend deduction with a refundable withholding tax also would be ruled out (as well as one that also eliminated individual level capital gains, which would lose an additional 7% for a total of 95%).

The other proposals also result in revenue losses but, except for the mark-to-market proposal, might recoup those revenues through limiting interest deductions (discussed in the "Disallowing Deductions for Debt" section) or reducing preferences.

The mark-to-market proposal, however, in which the corporate tax is entirely removed and shareholders are taxed directly, could not benefit from changes in corporate deductions or preferences. It could have its revenue loss reduced significantly if a direct tax of 35% were placed on tax-exempt shareholders. Note, however, that the effective tax burden for those shareholders would rise because the income base would be economic income. A smaller rate of 22% (equal to the current effective tax rate) could be imposed, but that would result in an overall effective tax rate of 17.6% and a revenue loss of 34%. Other options with the mark-to-market approach might be to exclude U.S. subsidiaries of foreign firms from the system, because they are not publicly traded, so they would continue to pay tax at the firm level (and still benefit from preferences). The combination of excluding these firms along with imposing a tax on tax-exempt investors at a 22% rate would lead to a 22.3% tax rate and a 13% revenue loss.

Another source of a potential revenue offset within the corporate tax would be to increase withholding taxes on foreign holders of U.S. stocks, which could be difficult because those reductions in withholding taxes in treaties are in return for reducing taxes on U.S. shareholders of foreign stocks, which would violate treaties and if renegotiated might lose revenue from this source.

The mark-to-market proposal of authors Toder and Viard also includes taxation at ordinary rates and marking to market of shares of foreign stock owned by U.S. residents. The latest Federal

Reserve estimates indicate that these values are 18.9% of domestic equities (which account for 83.3% of the total considered in this analysis), which is a 15.7% increase in the potential revenue base. If that amount is distributed in the same ratio as the U.S. ownership of U.S. firms' stock, one-third would be individual and two-thirds tax-exempt. If that treatment were included, a 15.7% increase would lead to revenue neutrality.[64]

A final potential source of gain is to retain a small corporate tax rate, which still allows some portion of the tax to be imposed on economic income at the shareholder level.

Disallowing Deductions for Debt

When considering disallowing deductions for debt as an addition to an integration proposal that involves taxing at the corporate level, some complications immediately arise. Financial firms (such as banks, insurance companies and holding companies that hold financial assets) are intermediaries for the differential treatment of corporate and other borrowing, and their observed net interest position should not be included. These firms would need to be excluded or have some type of special treatment. In addition, nonfinancial firms may operate as creditors with their customers, and thus earn interest as well as pay it.

For these reasons, it is difficult to estimate the revenue effect from the effective tax rate data. There are two sources of data on interest receipts and deductions: the National Income and Product Accounts (NIPA) and the IRS.[65] The NIPA data are separate for financial and nonfinancial corporations. The revenue gain from disallowing net interest deductions (at a 35% tax rate) is 35% of corporate tax revenue. For IRS data, the latest year is 2013; excluding the sectors of finance, insurance, and holding companies, the share is 36% of corporate tax return for all returns and 24% for returns with net income. These recent years, especially 2013, have been characterized by lower corporate tax revenues due to the recession and measures taken to address, but also by abnormally low interest rates. It is useful to examine 2007 data, the last year before the economic slowdown. The NIPA data find a share of 28% of corporate revenue, and the IRS data a share of 19% for all returns and 16% for returns with net income.

If disallowance for debt is considered in combination with a corporate-level tax as the only level, the only requirement on the other side is to exempt interest income by individuals paid from corporations. Based on the tax rates and shares, there would be a 13% (0.19*0.24 divided by 0.35) reduction in the gain.

If combined with a shareholder allocation or dividend deduction system with nonrefundable withholding tax, individual shareholders would receive a credit for corporate taxes paid, and the reduction in the offsetting gain would be 0.19*(0.35-0.24)/0.35, or 6%.

Although there is a considerable range in these estimates, disallowing deductions for debt as part of a corporate-level tax or nonrefundable shareholder allocation or dividend deduction with withholding could likely more than close the revenue gap.

[64] Eric Toder and Alan D. Viard, *Major Surgery Needed: A Call for Structural Reform of the U.S. Corporate Income Tax*, Tax Policy Center Working paper, Urban-Brookings Tax Policy Center, April, 4, 2014, at http://www.taxpolicycenter.org/sites/default/files/alfresco/publication-pdfs/413090-Major-Surgery-Needed-A-Call-for-Structural-Reform-of-the-US-Corporate-Income-Tax.PDF. Federal Reserve data from the flow of funds on equities is at http://www.federalreserve.gov/apps/FOF/Guide/L223.pdf.

[65] NIPA Table 7:11 at http://www.bea.gov/iTable/index_nipa.cfm and IRS Table 6 at https://www.irs.gov/uac/soi-tax-stats-returns-of-active-corporations-table-6.

An alternative approach is to simply disallow part of the interest deduction, which would reduce the favoritism between debt and equity and gain revenue without requiring the complexity of parallel treatment of dividends or corporate income.

Feasibility, Administration, and Compliance Issues

Two proposals would clearly simplify tax administration and compliance: (1) taxing only at the corporate level (which would eliminate all shareholder taxes) and (2) the dividend exclusion.

The various shareholder allocation and dividend deduction proposals would add to the compliance burden with additional calculations by the shareholders to claim the credit, although if taxes on capital gains could be eliminated entirely (i.e., gains and losses because the net gain differed from the appreciation in value due to retained earnings also not be subject to tax), this change might lead to overall reductions in compliance costs.

The mark-to-market approach is uncertain in its impact. It would initially appear that the mark-to-market proposal would eliminate the need to measure and calculate corporate tax liability including all of the deductions and credits that make up tax preferences, as well as the ordinary requirements of measuring depreciation and other costs. For multinational firms that operate abroad, as well as U.S. subsidiaries of foreign parents, however, the corporate tax base must be calculated to address transfer pricing disputes between firms and their affiliates.[66] And, if a supplementary corporate tax were needed for revenue purposes, this administrative gain would not be realized.

Taxes at the shareholder level would be simpler in some respects with no need for special treatment of dividends and gains on stock, but would be complicated by the need to mark to market. This task could presumably be carried out by brokers and required to be reported on IRS 1099 forms.

An additional concern about the mark-to-market approach is that income tax is being assessed on income that is not realized, which can create a cash flow issue. This issue would be most serious for stock in companies that paid little or no dividends. Of course, the presence of tax reduction at the firm level should encourage firms to pay additional dividends out of those savings to finance shareholder tax payments, or alternatively taxpayers may self-select into firms that pay dividends in the presence of a cash flow issue. Finally, shareholders could always sell a portion of their stock to pay the tax.

A proposal that is accompanied by disallowance of interest deductions would also result in additional complexity for financial institutions, and other intermediaries; presumably intermediaries (such as banks and mutual funds) would report the category of interest income (tax-exempt or taxable).

Efficiency and Other Economic Objectives

The traditional objective of corporate tax integration is efficiency: to, as stated in the 1992 Treasury report, reduce the distortions between corporate and noncorporate investment, between

[66] This point was made by Harry Grubert and Rosanne Altshuler, "Shifting the Burden of Taxation from the Corporate to the Personal Level and Getting the Corporate Rate Down to 15 Percent, " Forthcoming, *National Tax Journal*, September 2016, at https://www.aei.org/wp-content/uploads/2016/04/Grubert-Altshuler-Shifting-the-Burden-06-01-16.pdf.

debt and equity finance, and between retaining and distributing earnings.[67] One might add to that, as compared with the partnership method, reductions in incentives to hold stock rather than sell stock to avoid the taxation of gain embodied in retained earnings. Another issue, intertwined with the others, is the distortions in allocation of investment caused by tax preferences.

The growth of international tax concerns since the 1992 report has expanded the scope of economic objectives to include disincentives to invest in the United States that occur by virtue of the concentration of corporate taxes at the firm level. In addition, associated issues, such as retained earnings abroad in foreign subsidiaries that are only taxed when repatriated as a dividend, shifting profits to low- or no-tax jurisdictions, and inverting (merging with a smaller foreign firm and making another country headquarters of the new combined firm) have elevated interest in corporate tax reform. This discussion begins with the traditional issues, followed by a review of consequences for taxation and behavior of multinational firms.

Traditional Efficiency Issues

Allocating Capital to Investment Types

The principal distortion that has traditionally been the target of corporate integration is the difference in the tax treatment of the corporate and noncorporate sectors. Favoring the noncorporate sector causes too much capital to be allocated to the noncorporate sector, which earns a lower pretax return.

Table 1 illustrates that this issue is more complex, in that allocation across types of investments, especially between tangible and intangible assets, appears to be more significant than the choice across sectors. If the choice is to invest in a business, as compared to holding an array of corporate stocks either directly or within a retirement fund, in the presence of lightly (or negatively) taxed intangible investments along with the possibility of avoiding shareholder-level taxes entirely, the differential is only a small amount regardless of the choice of assumptions. **Table 3** shows that it is the noncorporate sector that is disfavored (although by a small amount) when the treatment of debt is taken into account. It also suggests, for purposes of addressing the corporate versus noncorporate choices, that significantly lowering or eliminating corporate taxes would not be efficient because the rates would be too low.

Consider first the options that produce very low tax rates in **Table 4**.[68] If the corporate tax were converted to a partnership basis (implemented by income allocation, and pass-through of preferences, and refundable credits), the distortion would reverse. Corporate profits on domestic investment would be taxed overall at 3.3%, with rates the same as the corporate-sector rates for intangibles, that is, zero or negative, and ranging from 4.8% to 6.8%. The current rates are 22.4% with rates on tangible investments ranging from 26.1% to 33%. With the CBO weights and assumptions, the effective tax rate is 10.4%, with the same rate on intangible assets and rates ranging from 11.9% to 16.2% for buildings and equipment.[69] This shift would bring tax rates on

[67] U.S. Department of the Treasury, *Integration of The Individual and Corporate Tax Systems*, p. vi, at https://www.treasury.gov/resource-center/tax-policy/Documents/Report-Integration-1992.pdf.

[68] This section calculates marginal rates on domestic investment by U.S. firms as in **Table 1**, which is somewhat different from average rates that include foreign investment of U.S. firms and U.S. investment of foreign firms in **Table 4**; although the rates are similar.

[69] Under the basic assumptions in **Table 1**, the individual tax rate on ordinary income is 38% and the rate on foreign shareholders is 3.4%, each accounting for 25% of shares (with zero for the remainder); the weighed statutory marginal rate is 7.85%. That rate is then multiplied by the ratio of the corporate effective rate to the corporate statutory rate to account for preferences.

different assets closer together within the corporate sector, but magnify the differences between the corporate sector and the noncorporate sector in the aggregate and asset by asset, now favoring the corporate sector. Similar, although slightly larger, rates would apply with the dividend deduction proposal with refundable withholding credits. (That proposal would involve slightly higher taxes because although the dividend deduction absorbs the corporate tax, there is still a capital gains tax on retained earnings.) The mark-to-market proposal would simply impose the statutory tax rates on economic income at the shareholder level, with a tax rate of 7.85% for the basic assumptions and 18.4% for the CBO assumptions. This change would create uniform rates across assets within the corporate sectors, but would now favor corporate investment overall and for fixed assets, while disfavoring intangible assets (which are of little importance in the noncorporate sector). Mark to market would also eliminate the subsidies for R&D, which may have been desirable. These options are not likely feasible in any case because of the large revenue losses.

Consider then the other proposals in which the revenue loss is smaller. The proposals for shareholder allocation or dividend deductions with nonrefundable credits, retaining the corporate tax as the only tax, or providing a dividend exclusion would reduce the tax rates only slightly because they largely maintain the existing corporate tax. The weighted statutory tax rate for the shareholder allocation proposal is 32.3% for the basic assumption and 33.5% for the CBO assumptions. The overall effective tax rates for these two assumptions are, respectively, 13.6% and 14.7%, with the range for physical assets from 21.5% to 28.2% in the first case and 22.5% to 29.5% in the second. Thus these proposals would slightly narrow the inter-sectoral differences for fixed assets, create a system that favors the corporate sector overall, and slightly narrow differences across assets. The rate would be slightly higher with the dividend deduction proposal because there is a small capital gain imposed on taxable individual investors. Retaining a corporate tax alone would produce the results in the firms-level column in **Table 1** with similar results for the dividend exclusion.

If some of the potential modifications to the mark-to-market approach addressed the revenue loss, including imposing taxes on tax-exempt firms at the shareholder level and possibly on foreign portfolio investors, while excluding U.S. subsidiaries of foreign firms, the system could lead to uniform treatment across corporate assets and possibly narrow the sectoral gap.

This analysis suggests that there is limited scope for narrowing differentials across sectors because the present differentials are so small.

The Debt-Equity Distortion

Another distortion considered as a focus of integration is the distortion between debt and equity finance. As shown in **Table 1** and **Table 2**, these differences are significant, with equity subject to a combined tax of around 23%, whereas the effective tax rate for debt is a subsidy. Thus the possibilities for an efficiency gain exist at this point. For example, imposing a withholding tax on interest paid in concert with a full or partial integration proposal would put debt finance more closely on par with equity finance. Also, it would not change the tax rates much from the existing overall rates in **Table 1**. Thus, proposals that reduce the benefits of debt finance appear likely candidates for achieving efficiency gains, and, as will be seen in the “International Issues” section, may also have important implications for these international concerns.

Pay-Out Choices

Current tax rules favor retaining earnings because capital gains taxes that reflect retained earnings are paid only when and if assets are sold.

The full integration proposals, imposing only the corporate tax, or a mark-to-market approach achieve neutrality between retained earnings and capital gains. This is true even with nonrefundable credits because these recipients have negligible differences in tax reliability. With a dividend deduction plan and a DRIP, neutrality would be achieved for firms that have desired dividends less than the amount representing fully taxed income. In that case, firms can pay dividends up to the limit to exhaust tax liability and the choice of cash or deemed dividends that are reinvested are taxed at the same rate. If desired dividends exceeded those that were eligible for relief because the firm had exhausted its tax liability, the distortion would depend on the tax rates imposed on dividends and capital gains at that point: whether both would be taxed at ordinary rates, dividends taxed at ordinary rates and capital gains at lower rates, or both taxed at current rates. The first two would increase the current distortion favoring retained earnings, in the first case by raising rates in general, and in the second case (with the greater increase) by also differentiating the rates.

A dividend exclusion as long as it did not exhaust tax liability would reverse the distortion, favoring payouts over retaining earnings.

Realization of Gains

The incentive not to realize gains, which applies only to taxable individuals, is also reduced in most cases. Full integration would largely eliminate the realizations distortion for corporate stocks because taxation largely occurs regardless of realization. There could still be a gain or loss in stocks because their prices are affected by other forces, but they would be expected to be smaller and net out over time. Mark to market would eliminate the realizations distortion for corporate stock because taxation would no longer be a realizations event. Retaining only the corporate level tax would permit the elimination of the capital gains tax entirely. The dividend deduction proposal would reduce the distortion because basis would be marked up under DRIP accounts in which desired dividends are less than those that exhaust tax liability, and gains would be smaller, reducing but not eliminating the distortion. A dividend exclusion would reduce realizations with DRIP accounts in the same way as a dividend deduction. Thus any of the integration approaches would either eliminate or reduce this distortion.

International Issues

In the international context, it is important to distinguish the concepts of growth, efficiency, and optimality. In a closed economy where tax changes are revenue neutral or savings insensitive to rates of return, growth is not expected to occur. In an open economy, capital can be attracted to the United States with a lower rate and domestic growth can occur. However, this domestic growth is deceiving because the return to capital from reducing investment abroad by U.S. multinationals will not affect a better measure of wellbeing, national income, because that income already belonged to those firms. Similarly, if foreigners or foreign firms invest more in the United States, the income belongs to them, and not to the United States. More capital moving to the United States can change the returns to labor and capital (pushing wages up and lowering pretax rates of return) by becoming more abundant, but should have a negligible effect on overall national income.

Efficiency is normally taken to mean maximizing welfare by allocating resources to their most productive uses, which in the absence of spillover effects, means all investments should earn the same pretax rate of return and be subject to the same tax rates. In a closed economy efficiency and optimality are the same. In an open economy, an efficient outcome maximizes worldwide income, while a different set of policies is needed to maximize U.S. welfare. In the case of

outbound investment (i.e., investment abroad by U.S. firms), income from foreign sources after deducting foreign income taxes should be taxed at a rate higher than the U.S. rate on domestic income (if the United States were a small country the rates would be the same). In that way, the returns earned by the United States if it were a small country (either as profits or taxes) would be the same; the rate differentials are to account for the influence of the U.S. economy on world rates of return. For inbound investment (i.e., investment of foreign firms in the United States), the tax rate should be determined by the elasticity of capital inflows from abroad (basically, one divided by the elasticity), which suggest a rate of 30% or so (given an elasticity of around 3). A zero rate would not be optimal because although capital investment and output would increase, tax revenues would fall and most of the increased output is income to foreign owners. U.S. income would decline.

Allocation of Capital Investments Across Countries

In general, according to the estimates in this report for average tax rates, U.S. tax at the corporate level is above the overall tax rate on foreign source income (and presumably by a similar proportion for marginal tax rate purposes). Much of the reason for these lower tax rates, however, is likely due to artificial profit shifting to tax-haven countries with low or no tax rates and little economic activity. Some small share might be due to real investment in the larger tax-haven countries, such as Ireland and Singapore, although most of the profits in those countries is probably also due to the location of paper profits.[70] In considering overall effective tax rates as measured in the other countries that are U.S. major trading partners, the marginal and average effective rates that govern investment (weighted by country size) are similar, that is, only a few percentage points apart. Thus lowering the corporate tax at the firm level would likely gain little in a more efficient worldwide allocation of income and if reduced too steeply could reduce efficiency by encouraging too much capital to locate in the United States (whether via inbound or outbound flows).

A zero tax rate could be optimal for outbound investment because it is equivalent to allowing a deduction for foreign taxes paid (although the same result could be achieved by taxing income at any rate as long as foreign taxes are deducted, not credited). It would not be optimal for inbound investment in which the rate is already likely too low.

Thus having only a modest reduction (as in the shareholder allocation or dividend deduction with nonrefundable credits) would be most likely to achieve efficiency gains (or not make losses larger). Taxing at the corporate rate alone would have no effect (because dividends and capital gains taxes at the individual level apply regardless of location). Dividend exclusions that came out of taxable income accounts would have a small effect but dividend exclusions in general would not have an effect because they would not depend on U.S. tax liability and would apply equally to income earned in any location. The other proposals, refundable dividend deduction plans and mark-to-market, would lower tax rates too much to achieve efficiency gains.

If the mark-to-market plan could be designed to yield adequate revenue (and thus impose higher tax rates), it would potentially gain efficiency and optimality. A mark-to-market plan that excluded U.S. subsidiaries of foreign parents would lead to a more optimal outcome with respect to inbound capital than would a plan that included these firms. For U.S. multinationals, the

[70] Government Accountability Office (GAO), *U.S. Multinational Corporations: Effective Tax Rates are Correlated With Where Income is Reported*, GAO-08-950, August 2008, at http://www.gao.gov/products/GAO-08-950, compares the share of profits with the share of plant and equipment in tax havens and non-haven countries. For a more general discussion of tax havens, see CRS Report R40623, *Tax Havens: International Tax Avoidance and Evasion*, by Jane G. Gravelle.

foreign source income would also be treated on an optimal basis, with the equivalent of deducting foreign taxes.

Repatriation

The current corporate tax, which defers taxes until income is repatriated, creates incentives to hold earnings abroad, which leads to inefficient investment and lost revenues. Repatriation of dividends triggers a corporate tax and also individual taxes if paid as a dividend. The tax barrier to repatriation would be lower if combined corporate and individual statutory income tax rates were lower. Most of the proposals in **Table 4** would involve only a modest reduction in the statutory tax rates. Shareholder allocations or dividend deductions that are not refundable would reduce rates only for a quarter of the shareholders and those reductions would be limited, therefore, they would not involve a significant reduction. Similarly, the dividend exclusion or taxing at the corporate level alone would have a reduction by only a small additional shareholder tax. The refundable allocation and dividend proposals have significant revenue losses. However, if some of the revenue loss could be made up by disallowing interest deductions and preferences, this approach would involve significant tax-rate reductions.

The mark-to-market approach would eliminate the repatriation tax, because there would no longer be a corporate tax. Thus earnings from abroad could be repatriated and either reinvested or distributed with no consequences. The mark-to-market approach is essentially a worldwide system that applies to income wherever earned.

Profit Shifting

Another international concern is to reduce profit shifting, which is the artificial location of profits in low or no tax jurisdictions. The two basic methods of profit shifting are (1) transfer pricing of intangibles (i.e., transferring the rights to use intangible assets, such as drug formulas and technology, at prices that locate too much of the profit in the low-tax country) and (2) leveraging (i.e., increasing borrowing and interest deductions in high-tax countries). A review of numerous studies estimated that transfer pricing was responsible for 72% of the total, and leveraging for the remainder.[71]

As with repatriation, any provision that reduces the statutory tax rate will reduce the incentives to shift profits, although it is not clear that small reductions, as in most of the proposals, would have much of an effect on profit shifting because of the limited responsiveness to changes in higher tax rates, which still retain large positive rates.[72] Such changes are not likely to induce firms to choose this higher rate when they can pay no tax at all in some other jurisdiction, merely through a paper transaction.

The mark-to-market approach, if it could be modified to produce adequate revenue, means that taxes are imposed globally on shareholders of U.S. firms, so that neither transfer pricing nor the location of debt matter. Thus it would eliminate tax incentives to shift profits.

---

[71] Jost H. Heckemeyer and Michael Overesch, *Multinationals' Profit Response to Tax Differentials: Effect Size and Shifting Channels*, Center for European Economic Research, Discussion Paper no. 13-045, 2013, available at: http://ftp.zew.de/pub/zew-docs/dp/dp13045.pdf.

[72] See a review of the evidence and analysis in Jane G. Gravelle, "Policy Options to Address Profit Shifting: Carrots or Sticks?" *Tax Notes*, July 4, 2016, pp. 121-134. For an overview of tax avoidance by multinational firms, see CRS Report R40623, *Tax Havens: International Tax Avoidance and Evasion*, by Jane G. Gravelle.

Eliminating interest deductions for corporations would end the mechanism of transfer pricing by locating debt in the United States. This would be important for U.S. multinational firms, and also foreign firms of U.S. subsidiaries. Recent proposed Treasury and IRS regulations under Section 385 of the Internal Revenue Code that would reclassify certain debt between related parties as equity may address some of these concerns, in any case.[73]

Inversions

A final issue is that of corporate inversions, in which U.S. firms acquire smaller foreign firms and make the foreign firms their headquarters. One motivation for inversions that increased in 2014 and to a lesser extent in 2015 was to make it easier to shift debt into the United States. Another was to potentially access existing unrepatriated income without paying taxes by intercompany loans from foreign subsidiaries to the new parent. A third was to move to a territorial tax system going forward, which means profits abroad are never taxed (making profit shifting and real investment abroad more attractive). These possibilities were limited by a series of regulations issued in 2015 and 2016.[74]

The attractiveness of inversions stems from the other issues already discussed. The same features, thus, affect them. Lowering the tax rate under dividend deduction and allocation might reduce the attraction of inversions but the effect would be limited because they would probably need to be confined to plans with nonrefundable withholding taxes, which would be unlikely to achieve much of the reduction in gains from inversions. Plans that disallowed interest deductions would reduce the incentive to invert in order to loan debt in the United States.

Mark-to-market would eliminate the incentives to invert because the firm's global income would be subject to shareholder-level tax.

Conclusion

The proposals for integration in this report were examined in the light of revenue adequacy, administrative feasibility, and economic efficiency gains in reducing distortions. All have drawbacks, which arise in part from the large fraction of tax-exempt or largely tax-exempt shareholders and in part from the increasing international concerns about profit shifting, repatriation, and inversions.

Some proposals that initially appear to be ruled out by revenue inadequacy are shareholder allocation plans and dividend deductions with refundable credits. However, these might be brought into revenue-neutral compliance with provisions disallowing interest deductions, eliminating tax preferences, and perhaps using only partial deductions. Provisions with nonrefundable credits could more easily achieve revenue neutrality with these additional changes and might even allow downward adjustments of corporate rates.

Disallowing interest deductions has a number of potential benefits as well as helping to address revenue gaps, including addressing one of the largest distortions of all, the difference between debt and equity finance in the corporate sector. It also would address issues such as profit shifting and inversions. This debt-equity distortion also exists within the noncorporate sector as well,

[73] IRS, REG-108060-15, Treatment of Certain Interests in Corporations as Stock or Indebtedness, *Federal Register*, vol. 81, no. 68, April 8. 2016, pp. 20912-20943, at https://www.federalregister.gov/articles/2016/04/08/2016-07425/treatment-of-certain-interests-in-corporations-as-stock-or-indebtedness.

[74] See CRS Report R43568, *Corporate Expatriation, Inversions, and Mergers: Tax Issues*, by Donald J. Marples and Jane G. Gravelle for further information.

although it is not as serious, particularly if more creditors are taxable. And although the treatment of debt creates a distortion within the noncorporate sector, it helps to even out the treatment between aggregate investment in the corporate and noncorporate sectors. The major limitation associated with this approach is that it is administratively difficult to provide exclusions of interest income on the creditor's side. Most creditors do not pay tax on interest income, so that might not be a disqualifying problem. It also would be possible to consider more limited approaches, such as disallowing the deduction for the inflation portion of interest, or a partial disallowance without making corrections on the creditor's side.

The mark-to-market proposal, because it taxes global economic income, eliminates a number of distortions both domestic and foreign. Mark-to-market issues with revenue inadequacy can be addressed, although they may present political challenges. Although keeping nonprofits at the same effective tax rate by imposing a tax on their earnings under mark to market is no different from keeping them at the same effective tax rate by imposing a nonrefundable withholding tax for dividend deductions, the former may be more obvious and more difficult politically. Similarly, foreign shareholders of U.S. firms are benefitting and it may be appropriate to increase taxes on them in a way consistent with a neutral burden.

Even if these issues could be addressed, a major issue with the mark-to-market proposal, one that would be very difficult to overcome, is taxation of income (reflecting capital gains) even though stocks are not sold and income is not realized.

Author Information

Jane G. Gravelle
Senior Specialist in Economic Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.