

REPLACING CORPORATE TAX REVENUES WITH A MARK-TO-MARKET TAX ON SHAREHOLDER INCOME

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We propose reducing the corporate tax rate to 15 percent and replacing the foregone revenue with a tax at ordinary income rates on the accrued, or mark-to-market, income of American shareholders of publicly traded corporations, accompanied by an imputation credit for U.S. corporate income taxes paid. The proposal would dramatically reduce the tax significance of the source of corporate profits and the residence of corporations, both of which can be easily manipulated. Lowering the corporate tax rate to 15 percent would encourage a flow of capital into the United States and reduce incentives to shift reported profits overseas and to engage in inversion transactions, while continuing to impose tax on foreigners who earn economic rents from investing in the United States. The proposal includes provisions for averaging of mark-to-market income, transition relief for firms that move from closely held to publicly traded status, and other measures to address the challenges of mark-to-market taxation. We estimate that the proposal would be approximately revenue-neutral and would make the distribution of the tax burden slightly more progressive.

Keywords: tax reform, corporate income tax, mark-to-market taxation, corporate tax integration

JEL Codes: H24, H25, H32

I. INTRODUCTION

This paper presents a proposal to reform the taxation of corporate income. The current U.S. system for taxing income earned within corporations has failed to adjust in response to recent changes in the U.S. and global economy and in other countries' tax policies. The most important of these changes are the increased globalization of economic activity, corporate tax rate reductions and shifts toward territorial taxation in other major economies, the increased share of business wealth that takes the form of intangible property, and the increased share of economic activity in the United States conducted through businesses that are not subject to the corporate income tax.

We particularly emphasize the challenges that the United States faces in implementing a tax on multinational corporations. Determining the portion of this income that is taxable in the United States relies on two concepts — the source of income and corporate residence — that are not well defined and that companies can easily manipulate to minimize taxes without changing real economic activity. The result is a tax system that discourages investment in the United States and places U.S. companies at a competitive disadvantage, while causing an erosion of the corporate tax base and a loss in revenues that must be made up by other taxpayers. Two frequently cited symptoms of the problems are corporate inversions, in which companies abandon their U.S. residence to reduce their tax liability, and the shift in reported profits of U.S. multinational corporations to tax havens.

We suggest a major shift in the way the United States taxes corporate-source income. We propose dramatically reducing the corporate-level tax, which is based on the source of corporate income and the residence of corporations, and imposing a residence-based individual-level tax at ordinary income rates on American shareholders' dividends and accrued capital gains on publicly traded corporate stock. We believe this approach would yield important benefits. It would reduce the long-standing biases of the corporate income tax that favor debt over equity finance and retained earnings over dividend payments and that favor flow-through businesses over corporations subject to corporate income tax. It would greatly reduce incentives to shift reported income and investments overseas and incentives for companies to invert or otherwise establish residence outside the United States. It would fully tax the income Americans receive from corporate share ownership, without creating the severe lock-in problem that would result from taxation of realized capital gains at ordinary income rates.

The main elements of our proposal are: (1) a flat 15 percent tax on corporate income; (2) taxation of dividends plus net accrued capital gains of individual American shareholders in publicly traded corporations at ordinary income rates, with full loss offsets and shareholder credits for corporate taxes paid; (3) retention of most of the current law rules for taxing income from flow-through businesses; and (4) retention of preferential rates and current-law loss limitations on realized capital gains from assets that are not publicly traded, but with taxation of unrealized gains (at the preferential rates) at death.

This proposal is a revision of our earlier proposal, described in Toder and Viard (2014), which would have completely eliminated the corporate-level tax. Our new proposal maintains a low rate corporate-level tax, in order to attain approximate revenue neutrality, continue to collect some revenue from foreign investors, more easily continue to collect revenue from investments by tax-exempt organizations and retirement plans, and allow states to maintain their corporate income taxes if they wish to do so. We believe a 15 percent rate is low enough to substantially relieve most of the problems the corporate level tax produces, including the international taxation concerns noted above. We propose a shareholder credit to relieve the double taxation that would otherwise result from retaining a corporate-level tax alongside full mark-to-market taxation of shareholder income.

We have also added important details to our earlier proposal. These include an averaging proposal to address concerns about liquidity and bunching of income, a tax on the interest income of tax-exempt institutions and retirement plans to limit the net tax reduction that they receive from the lower corporate rate, and transition rules for moving to the new system and for addressing changes in firm status from closely held to publicly traded.

Section II of this paper provides more discussion of why we believe this type of reform is needed. Section III presents the basic building blocks of our proposal. Section IV discusses some design issues and proposed solutions. Section V discusses the effects of our proposals on federal receipts, the distribution of tax burdens, and the economy. More details of our proposal are presented in Toder and Viard (2016).

II. BACKGROUND: WHY THE CORPORATE SYSTEM IS BROKEN AND NEEDS MAJOR REPAIRS

The United States taxes corporate income at graduated rates ranging from 15 to 35 percent. Businesses that are subject to the corporate income tax are referred to as C corporations. Most income of C corporations is taxed at the top rate. States also tax corporate income, at rates ranging from 0 to 12 percent, with an average rate of about 6.15 percent. With state corporate income taxes included, and accounting for the deductibility of state taxes from the federal tax, the combined U.S. corporate tax rate averages about 39.1 percent, the highest among the countries in the Organisation for Economic Co-operation and Development (OECD).¹

An important feature of the current U.S. tax system is the double taxation of corporate equity income. Dividends received by American shareholders are taxable even though there is no corporate deduction for dividends paid. Retained earnings are also taxable at both the corporate and shareholder levels, to the extent they raise the value of corporate shares and taxpayers realize the gains by selling the shares. The double taxation is mitigated because dividends and capital gains are taxed at preferential rates, with a top rate of 23.8 percent (including the 3.8 percent high-income surtax on net investment income enacted as part of the Affordable Care Act), compared with a top rate of 43.4 percent (also including the surtax) on interest income. The two levels of tax make the combined corporate/shareholder statutory tax rate on dividends equal to 50.47 percent for a shareholder in the top tax bracket ($0.35 + (1 - 0.35) \times 0.238$).

Many businesses do not pay corporate income tax. Instead, their income is allocated to owners and is subject only to individual income tax (and, in some circumstances, payroll tax). Owners of these “flow-through” businesses, which include sole proprietorships, partnerships and limited liability companies, and subchapter S corporations, pay individual income tax on their business profits at rates of up to 39.6 percent. In 2012,

¹ The OECD data are available at https://stats.oecd.org/index.aspx?DataSetCode=Table_III.

95 percent of U.S. business taxpayers were organized as flow-through businesses. Although most were small businesses, many were large and medium sized business. In all, flow-through firms accounted for 39 percent of gross business receipts and 64 percent of net business income.²

Some tax preferences for business income make the effective tax rate on corporate investments in the United States lower than the statutory rate. These preferences are also available to flow-through businesses.

A. Basic Structure of International Provisions

U.S.-resident multinational corporations pay tax on their worldwide income, with a credit for foreign income taxes paid. Foreign tax credits are limited to the amount of U.S. tax applicable to the foreign-source income. Excess credits accumulated from investments in high-tax countries can be used to offset taxes due on income from investments in low-tax countries, a feature known as “cross-crediting.”

Taxation of most profits of foreign-subidiaries of U.S. multinationals is imposed only when the profits are repatriated through a dividend payment to the U.S. parent company. This ability to delay tax payments is known as “deferral.” Deferral is unavailable for some profits of U.S. multinationals. First, income of foreign branches is taxable on a current basis, although that does not affect most U.S. multinationals because they operate overseas through separately chartered foreign subsidiaries. Second, some income of foreign subsidiaries is taxable on a current basis under the “subpart F” rules (set forth in subpart F of Part III of Subchapter N of Chapter 1 of the Internal Revenue Code); these rules primarily apply to forms of passive and easily shiftable income and are intended to protect the domestic tax base (or, in some cases, foreign tax bases).

The U.S. corporate income tax base generally includes U.S.-source income earned by both U.S. and foreign-resident multinational corporations, although under tax treaties, U.S. tax generally applies to foreign-resident corporations only if they have a permanent establishment in the United States. The allocation of multinational corporations’ income between the United States and foreign countries depends on the prices companies set on transactions between affiliates within a corporate group. Regulations issued under Internal Revenue Code section 482, and similar provisions in other countries, require that these intra-group prices, called “transfer prices,” reflect the prices that would arise in arms-length transactions between independent parties. It is often difficult, however, to find comparable transactions to establish a correct transfer price, particularly for unique intangible assets.

The Internal Revenue Code defines the residence of a multinational corporation as its place of incorporation. As a result, corporate residence need not reflect where a company’s shareholders reside, where its production and sales occur, or where its central place of management is located. Corporate residence has tax consequences because

² These figures are based on authors’ calculations, using data reported at IRS Statistics of Income, 2016, <https://www.irs.gov/uac/soi-tax-stats-integrated-business-data>.

foreign-resident corporations do not face U.S. corporate income tax on non-U.S.-source profits distributed to the parent company and are not subject to the subpart F rules.

B. Comparison with Other Countries' Tax Systems

As previously mentioned, the United States has the highest statutory corporate tax rate among the countries in the OECD. The top federal U.S. tax rate has been 35 percent since 1993, up from 34 percent after the Tax Reform Act of 1986, while other countries have steadily reduced their corporate tax rates over the past three decades.

Although the United States taxes the worldwide income of its resident multinational corporations, as discussed above, most countries have "territorial" systems. In a territorial system, foreign-source profits of resident multinational corporations are exempt from tax. In practice, the difference between worldwide and territorial tax systems is less dramatic than it seems. Deferral and cross-crediting substantially reduce the tax that U.S. multinationals pay on their foreign-source income under the United States' worldwide system; conversely, most countries with territorial systems have anti-avoidance provisions (similar to the U.S. subpart F rules) that tax some foreign-source income on a current basis.

C. Problems with the Corporate Income Tax

The corporate income tax, in interaction with the individual income tax, has long-standing problems that would apply even if the U.S. economy were closed to international trade and investment. It penalizes equity-financed corporate investment relative to both debt-financed corporate investment and investment by flow-through businesses because equity returns bear tax at both the corporate and (albeit at reduced rates) the shareholder levels, while interest income and income from flow-through businesses are taxed only once at the bondholder or business owner level. The corporate income tax also distorts corporate payout decisions because shareholders are taxed on dividends as they are received but are not taxed on the capital gains generated by reinvested profits until the gains are realized (and not at all if the gains are still unrealized when the shareholder dies or if the shareholder contributes assets with unrealized gains to charities).³

The corporate income tax has much more serious shortcomings in a global economy. Neither pure model of taxing foreign profits of U.S. corporations can achieve full neutrality on all the important margins of choice. A worldwide system that taxes on a current basis all profits of U.S. multinationals and their foreign affiliates with a credit for foreign income taxes paid would generally equalize the combined domestic and

³ Under current law, heirs benefit from the step-up of basis, which allows them to claim a cost basis equal to the market value of the assets on the date of the original asset holder's death. Accordingly, the heirs are not taxed on the gain that accrued during the original holder's lifetime. Similarly, if an asset with unrealized gains is donated to charity, the donor may claim a charitable deduction equal to the value of the asset without paying any tax on the gain.

foreign tax burdens on domestic and foreign investments of U.S.-resident multinationals; however, it would place U.S.-resident corporations at a disadvantage compared with foreign-resident corporations that do not pay any residual tax to their home government on profits they report in low-tax foreign countries. A territorial tax system that taxed U.S.-resident corporations only on their U.S.-source profits would treat U.S. and foreign-based corporations more equally (depending on the relative scope of anti-avoidance rules such as subpart F in the United States), but would encourage U.S. multinationals to invest overseas in low-tax countries instead of in the United States or other high-tax countries. Full neutrality on both margins — between investments in different locations and between companies based in different countries — cannot be achieved because the United States cannot extend its taxing reach to profits earned outside the United States by foreign-based multinationals.

The United States has attempted to address the tradeoff between these conflicting objectives by adopting a hybrid tax system that is neither purely worldwide nor purely territorial. By allowing U.S.-based multinationals to defer tax on most profits until they are repatriated and to take advantage of cross-crediting, the United States imposes some tax on foreign-source income, but at a much lower effective rate than domestic-source income. This type of hybrid tax creates an additional problem, however, because it encourages multinationals to retain foreign profits overseas instead of repatriating them to the U.S. parent company. Fortune 500 American companies report holding \$2.4 trillion of un-repatriated profits permanently invested abroad (Citizens for Tax Justice, 2016). Although the buildup of un-repatriated profits may not have significantly reduced these companies' investments in the United States, it likely has induced them to adopt financing methods with higher non-tax costs than repatriation (see Grubert and Altshuler (2013) for discussion and estimates).

D. Defining Source and Residence: The Achilles Heel of the Corporate Income Tax

Choosing between competing neutrality concepts in designing international tax rules would be difficult even in a system in which the concepts of source of income and corporate residence could be meaningfully defined. The choice is vastly more difficult in the real world because the concepts of source and corporate residence have little economic meaning and therefore can be easily manipulated by companies to avoid taxes. This makes it increasingly difficult to administer a corporate income tax based on either concept.

The source of profits was more meaningful when most business wealth was in the form of fixed assets, such as plant and equipment, whose location was easily defined. Today, however, a substantial share of business wealth is in the form of intangible assets that are not location-specific, such as patents, goodwill, business reputation, and good corporate governance. Multinationals can, and often do, shift ownership of intangibles to affiliates in low-tax jurisdictions where little actual production, employment, or sales occur and thereby lower their tax liability on a substantial share of their global profits.

In theory, the United States could tax the value of intangible assets when their ownership is initially transferred to a foreign affiliate, but it is often very difficult to value the intangible at that time because its contribution to future profitability is not yet known.

Multinationals can also shift income overseas through debt-equity swaps with foreign affiliates in low-tax jurisdictions. The subpart F rules limit the ability of U.S.-based multinationals to engage in this practice by denying deferral to the passive income of their foreign affiliates. But these rules do not apply to foreign-resident multinationals, giving them an advantage over U.S.-resident corporations.

The difficulty of defining source has enabled multinationals based in the United States and elsewhere to reduce their corporate tax liability by transferring ownership of their intangible assets and thereby sourcing income in low-tax jurisdictions. Of course, U.S. multinationals still must pay U.S. tax on these profits when they repatriate them to the parent company. Companies can, however, avoid this tax and escape the restrictions on income stripping under subpart F by establishing foreign residence. As discussed above, the residence of multinational corporations in the U.S. tax law is based on their place of incorporation, which need not be connected to the location of their economic activity.

For example, a U.S. company can become a subsidiary of a foreign-resident corporation in a transaction called an “inversion.” U.S. tax laws no longer recognize “naked” inversions in which a U.S. multinational simply sets up a subsidiary in a tax haven and then makes it the parent company. But, the tax law still allows a U.S. company to become a U.S. affiliate of a foreign-resident company if it merges with a foreign multinational that owns at least 20 percent of the shares of the new combined company or if there is substantial real economic activity in the country of the new parent company.

The U.S. Department of the Treasury (2016b) recently issued regulations designed to make inversions less attractive. But even if inversions could be prevented, the U.S. tax system could still induce the share of economic activity accounted for by U.S.-resident MNCs to decline through other channels. Examples include mergers of equal-sized firms that then establish foreign residence, foreign buyouts of smaller U.S.-resident companies or divisions of larger U.S.-resident companies, changes in the residence of startup companies, and shifts in the shares of worldwide activity between existing U.S.-resident and foreign-resident multinationals.

E. Limitations of Commonly Proposed Reforms

In recent years, there have been growing calls for corporate tax reform. Major driving forces have been concern about the effects of the relatively high U.S. corporate tax rate on domestic investment and income reporting and about the buildup of U.S. multinationals’ un-repatriated profits. At the same time, budgetary concerns and worries about growing income inequality have led policymakers to seek reforms that maintain current revenues from taxing business profits. Reform proposals introduced by members of Congress, the White House, and bipartisan reform commissions have taken two general forms.

1. Traditional 1986-Style Reform Proposals

Traditional 1986-style reform proposals would broaden the tax base to pay for lower corporate rates and, in some cases, lower individual rates (National Commission on Fiscal Responsibility and Reform, 2010; Bipartisan Policy Center, 2010; Committee on Ways and Means, 2014; U.S. Department of the Treasury, 2016a). Proposals that attempt to keep business tax revenues constant have mostly floundered due to the difficulty of identifying enough business tax preferences to pay for significantly lower corporate rates. And these proposals have encountered opposition from flow-through businesses, which would see their tax preferences reduced without receiving the benefit of lower tax rates if only the corporate rate were cut.

Moreover, such reforms offer limited economic benefits. Lowering the corporate tax rate and broadening the base could improve the efficiency of capital allocation by making investment decisions more dependent on economic rather than tax considerations. But revenue neutral tax reform would not necessarily make the United States a more attractive investment location and could make it less attractive if a rate cut that reduces tax on the return from existing investments is paid for by curtailing incentives for new investments. And a rate cut in the range that has been discussed (to between 25 and 30 percent) would do little to curb the shifting of reported profits to low-tax jurisdictions.

2. Proposals to Reform the International Tax Rules

Proposals to reform the international tax rules have focused on eliminating the build-up of un-repatriated profits of U.S. multinationals by removing the tax they must pay in the future when they repatriate profits from their foreign affiliates. This type of dividend exemption would make the U.S. system look more like the territorial systems of our major trading partners (Altshuler, Shay, and Toder, 2015). To prevent windfall gains to multinationals, these reforms would impose a one-time transition tax, payable over a number of years, on existing un-repatriated profits. To avoid an increase in incentives to shift profits overseas, the plans would impose some form of minimum tax, without deferral, on future foreign-source income from intangible assets (Committee on Ways and Means, 2014; Portman and Schumer, 2015; U.S. Department of the Treasury, 2016a).

These proposed reforms would improve the current hybrid system by converting the reduced effective tax rate that deferral provides for foreign-source income into explicit lower rates on income earned by foreign subsidiaries, thereby eliminating the economic distortions from taxing profits when repatriated. If the resulting effective rate on foreign-source income were unchanged, however, such a reform would not reduce either the incentive to shift reported profits overseas or the incentive for U.S.-resident companies to become foreign-resident corporations.

In this paper, we present a more far-reaching reform.

III. BASIC BUILDING BLOCKS OF THE PROPOSAL

We would replace the majority of the current corporate income tax with a tax on the accrued income of American shareholders of publicly traded companies. This shift in

taxation from the corporate to the shareholder level would reduce incentives for U.S. corporations to shift reported income and real investments overseas and to change their place of incorporation, while ensuring that American shareholders pay tax on the income they accrue within both U.S.-based and foreign-based corporations. It would significantly reduce tax avoidance because it is much harder for American individuals to emigrate and renounce their U.S. citizenship than it is for corporations to change their place of incorporation or sourcing of profits.

A. Changes in Corporate Taxation

We would replace the current graduated corporate tax rate structure with a 15 percent flat rate tax and eliminate the corporate alternative minimum tax. The corporate tax rate reduction is the key source of the economic benefits of the proposal because it dramatically reduces the tax penalty for both Americans and foreigners to invest in the United States. To illustrate this, we begin with an analysis of the incentives facing foreign investors.

Because foreigners face a burden from the U.S. corporate income tax only if they invest in the United States (or in U.S.-resident corporations operating abroad), they can avoid the tax by investing elsewhere. As discussed above, a key disadvantage of the current high corporate tax rate is that it discourages investment in the United States, thereby reducing the U.S. capital stock and lowering American workers' real wages. Slashing the corporate tax rate to 15 percent would dramatically reduce the disincentive for foreigners to invest in the United States.

That disincentive could be completely removed by eliminating the corporate income tax, as proposed in Toder and Viard (2014). That would be the optimal policy if the United States were a small economy with no unique attributes that provided economic rents to foreign investors. In that case, the United States would not be able to raise any revenue from foreign investors by imposing a tax on them, as they could completely shift the tax to American workers by demanding a higher pretax return. Because the United States has unique attributes as an investment location, however, investors do not regard investments in the United States and other countries as perfect substitutes. As a result, foreign investors cannot fully shift the tax to Americans. In accord with the optimal tariff literature, it is in the United States' national interest to impose a low-rate tax on foreign investors to extract some rents from those investors, even at the cost of imposing some disincentive for them to invest here.⁴ We believe that 15 percent is a reasonable tax rate to achieve this goal.

Disincentives for Americans to invest in the United States could be eliminated if Americans were taxed at the shareholder rather than the corporate level because the shareholder tax applies regardless of where the investment occurs. (The key difference between Americans and foreigners in this context is that the United States can tax Ameri-

⁴ The concern about retaliation that usually arises with an optimal tariff has limited application here. Most other countries have corporate income taxes, at rates above 15 percent, which apply to Americans investing within their borders.

cans who invest abroad, but cannot tax foreigners who invest abroad). The proposal largely achieves that goal by providing American shareholders with imputation credits that negate the corporate income tax burden on their investments, as discussed below.

We would retain most corporate tax preferences because resolving the issue of whether to subsidize activities such as research and development, low-income housing, and domestic energy production is outside the scope of this proposal. We would, however, eliminate the 9 percent domestic production deduction, which would become unnecessary as the corporate tax rate would be far below the 31.85 percent effective rate generated by the deduction.

We would leave in place the current international rules that tax the worldwide income of U.S. multinational corporations with a credit for foreign income taxes paid and allow companies to defer tax on most foreign-source profits until they are repatriated as a dividend to the U.S. parent corporation. These rules are highly imperfect, as discussed above, but the incentives for companies to shift reported incomes and corporate residence would be so much lower at a 15 percent rate than at a 35 percent rate that the design of the rules is of secondary importance.

B. Changes in Shareholder Taxation

To ensure that the shareholders who receive corporate income continue to bear their fair share of the U.S. tax burden, we would offset the corporate tax rate reduction by taxing dividends and capital gains at ordinary income tax rates. However, taxing capital gains at ordinary income tax rates under a realization-based system would create strong lock-in effects, penalizing asset sales. Moreover, with a much lower corporate tax rate, a realization-based system would allow corporate profits to be sheltered from tax if the profits were reinvested and shareholders delayed realizing the resulting capital gains. To address both problems, we propose to move to accrual taxation of shares in publicly traded corporations.

We would therefore impose an accrual, or mark-to-market, tax at ordinary income tax rates on income that American shareholders receive from investments in publicly traded corporations. The tax would apply to income from American shareholders' holdings of both U.S.-resident and foreign-resident corporations. Taxable income from these holdings would be the sum of dividends and net accrued capital gains (the change in the market value of shares during the year). Equivalently, it would be the end-of-year value plus sales during the year minus the beginning-of-year value and purchases during the year. The 3.8 percent investment income surtax would also apply to this income.

As described below, gains and losses would be smoothed to ease problems associated with share price volatility. Any accrued net losses (that remain after the application of the averaging system) could be fully deducted against other income and any excess losses could be carried forward and back to other years in the same manner as business net operating losses.

Taxable American shareholders would be allowed an imputation credit for corporate taxes paid equal to 17.5 percent of the cash dividends and stock dividends they receive. The credit would be included in their taxable income. Thus, if a corporation declared a

\$100 cash or stock dividend, the shareholder would include \$117.50 in taxable income and would claim a \$17.50 credit. The \$17.50 credit would be 14.89 percent of the \$117.50 of before-corporate tax dividends, slightly below the proposed 15 percent corporate rate.

Corporations would accrue imputation credits when they pay U.S. corporate tax and would use them when they pay either cash or stock dividends to their shareholders. Allowing imputation credits for both cash and stock dividends would allow shareholders to claim credit for corporate taxes, thereby preventing double taxation of the increase in corporate share values, without requiring companies to make cash distributions. The credits would offset personal income tax liability from other sources of income. The credits would not be refundable, but shareholders would be allowed to carry them forward to offset future income taxes. As discussed below, the credits would also be subject to the averaging system.

Dividends that corporations pay to non-profits, qualified retirement plans, and foreign investors would use up accumulated imputation credits, but those shareholders would not be allowed to claim credits. Only taxable American shareholders would be able to claim the credits.⁵ As a result, shareholders would receive credit only to the extent that U.S. corporations pay U.S. corporate taxes that are attributable to the portion of cash and stock dividends payable to them. American shareholders would not receive credit for U.S. corporate taxes paid by foreign-resident companies.

Our method of relieving shareholders of the burden of the double tax on corporate income is similar to the imputation credit systems utilized by Australia and New Zealand. Both countries allow shareholders to claim credits for “franked” dividends from profits on which domestic corporations have paid domestic corporate income tax. The main differences between our proposal and their tax systems are that we apply a much lower corporate tax rate to undistributed corporate profits and that we tax shareholder gains as they accrue. As a result, our proposal imposes a much lower burden on the inflow of capital to domestic corporate investments while making up the revenue loss with higher taxation of gains of shareholders.

As discussed further below, mark-to-market taxation of individual investors would also be applied to gains and losses on other publicly traded financial assets and to non-publicly-traded derivative contracts on these assets.

We considered and rejected an alternative that would tax capital gains on a realization basis while applying a deferral charge to approximately offset the tax savings from deferring tax until realization. The deferral-charge approach, which is embraced by Grubert and Altshuler (2016), would be an improvement over the current system and would have some advantages over mark-to-market taxation. On balance, however, we prefer the mark-to-market method, for reasons we explain fully in Toder and Viard (2016). The deferral-charge method would cause taxpayers’ capital gains tax liability, as a fraction of their capital gains, to exceed the statutory capital gains tax rate, potentially arousing some of the same political opposition as mark-to-market taxation. Also, unlike mark-to-market taxation, the method would not achieve full neutrality with respect to the

⁵ Rules would be adopted to prevent corporations from “streaming” credits to taxable investors alone. Also, a minimum holding period would be required for shareholders to claim the credit.

timing of asset sales and would require the selection of an interest rate to compute the deferral charge. Moreover, it could not easily handle movements between tax brackets during the holding period.⁶

C. Taxation of Owners of Closely Held Businesses

We would apply mark-to-market taxation only to investments in publicly traded assets and their non-publicly-traded derivatives. Owners of companies that are not publicly traded (“closely held companies”) would be taxed in the same manner that owners of flow-through entities are taxed under current law.

Owners of closely held companies would continue to pay ordinary income tax on their shares of the income of the business. (Any publicly traded assets held by the business would be marked to market in computing the business’s income.) Capital gains on the sale of shares of the business would continue to be taxable as realized, subject to current-law preferential rates and loss limitations. We believe that it would be impractical to apply mark-to-market taxation in circumstances where market valuations are not easily obtained and shares are illiquid. Because we would still tax gains on these assets on a realization basis, we would retain preferential rates to limit the extent to which investors are locked-in to investments with accrued gains, and we would retain loss limitations to reduce the extent to which investors could game the system by realizing losses while deferring realization of gains.

We would, however, make one major change to the taxation of gains on shares in closely held businesses and other non-publicly traded assets. We would tax unrealized gains on these assets at death, with a spousal exemption, so that all gains would eventually be taxable during the lifetime of the investor or his or her spouse.⁷ We would tax these gains at preferential rates, to avoid creating an artificial incentive for taxpayers to sell assets just before death. Taxing gains at death would reduce the advantage that owners of closely held companies would enjoy, relative to shareholders of publicly traded companies, from not paying tax on gains as they accrue.

Foreign owners of closely held business with permanent establishments in the United States would continue to file U.S. tax returns and pay tax at ordinary income rates on their shares of the profits of the business. We believe that many foreign owners of closely held businesses in the United States are actively involved in their businesses and should therefore be treated as if they were U.S. residents earning income from productive activities in the United States. In theory, we might want to apply a 15 percent tax rate

⁶ We also rejected an alternative that would allocate corporate profits to U.S. shareholders and subject them to individual income tax in the same way that income of flow-through businesses is currently taxed. Most tax specialists view the flow-through approach as impractical for publicly traded corporations because it would be difficult to allocate corporate profits among shareholders when shares change hands frequently. Also, because the IRS could not require foreign corporations to report their worldwide income, it would not be possible to tax American shareholders on their shares of that income. U.S.-resident corporations would therefore still have an incentive to invert so that their shareholders could avoid tax.

⁷ Gains would also be taxed when these assets were donated to charities.

to the incomes of passive foreign investors who merely supply equity capital to these enterprises, such as limited partners of private equity funds. Such an approach would treat these investors equally with foreign shareholders of publicly held companies with U.S.-source income, who would bear the burden of the 15 percent corporate income tax. In practice, we do not think it would be worthwhile to write special rules to distinguish active from passive investors, which might be complex and have only limited application. As under current law, foreign owners of closely held businesses would generally pay no tax on capital gains from sales of their shares in the business. This would treat their capital gains the same as capital gains from the sale by foreign investors of their shares in publicly traded companies.

D. Effective Date

The effective date of the proposal would be January 1 of the second full year after it was enacted. Purely for illustrative purposes, we assume that enactment occurs during 2016 and that the effective date is therefore January 1, 2018.

IV. DESIGN ISSUES AND PROPOSED SOLUTIONS

In this section we examine major design issues in our proposal: (1) how to define which companies and assets are subject to the mark-to-market regime; (2) how to treat movements between privately owned assets and publicly traded assets that are taxable under the mark-to-market regime; (3) how to treat business tax preferences; (4) how to tax income received by non-profit institutions and qualified retirement saving plans; (5) how to adjust for problems resulting from the increased volatility of the tax base under a mark-to-market regime; and (6) transition rules for moving from current law to the new system.

A. Scope of the Mark-to-Market Regime

Under current law, holders of “marketable” stock in passive foreign investment corporations (PFICs) may elect mark-to-market taxation. The Internal Revenue Code and the U.S. Treasury regulations define marketable stock as stock that is traded on a national securities exchange or national market system registered with the SEC or on any exchange or other market that the U.S. Treasury determines has adequate rules. We propose to adopt a similar definition to determine which stock is publicly traded. If a corporation issues multiple classes of stock, we propose that the corporation be subject to corporate income tax and that all of its stock be taxed on a mark-to-market basis, so long as any significant portion of the stock is traded on an exchange.

Under current law, some publicly traded businesses receive flow-through status. We would maintain flow-through status for publicly traded entities that are essentially investment vehicles, including RICs, REMICs, and partnerships that primarily earn financial income. However, the investors who hold shares in these publicly traded enti-

ties would be taxed on a mark-to-market basis. We would apply both the 15 percent corporate income tax and the mark-to-market regime to REITs and other publicly traded partnerships that currently receive flow-through status only because they have certain types of business income, such as oil and natural resource income.

To avoid arbitrage, we propose that derivatives on publicly traded stock also be taxed on a mark-to-market basis, even if the derivatives are not themselves publicly traded. As Weisbach (1999) noted, derivatives should be taxed on a mark-to-market basis if they are close substitutes for other assets that are taxed in that manner.

The underlying logic of our proposal does not require that any other assets be taxed on a mark-to-market basis. Nevertheless, we propose that gains on other publicly traded assets and derivatives on such assets be taxed on a mark-to-market basis at ordinary income tax rates, the same general approach repeatedly proposed by President Obama, proposed by Senator Ron Wyden (D-Oregon) in May 2016, and included in then Ways and Means Committee chairman Dave Camp's (R-Michigan) February 2014 tax reform plan. Mark-to-market taxation would be superior to the current-law realization-based rules that apply to derivatives; as Hammer (2013) describes, those rules can be gamed by taxpayers, do not provide clear guidance about the proper treatment of some assets, and treat similar assets differently. This provision could be removed, however, without affecting the remainder of the plan.

We propose to exempt from tax a small amount, perhaps the first \$500 (\$1,000 for couples), of annual accrued income, so that small asset holders would be spared from mark-to-market taxation. The same amount of accrued losses would be disregarded.

B. Movements Between Closely Held and Publicly Traded Status

Under current law, closely held businesses can choose to be organized as C corporations or as flow-through entities (partnerships, limited liability companies, or subchapter S corporations). Under our proposal, all closely held businesses would be taxed as flow-through businesses, even those that are currently organized as C corporations.

1. Redefining Existing Entities When the Reform is Enacted

Because S corporations are simpler in structure than partnerships, we would specify as a default rule that existing closely held C corporations would become S corporations if they have no more than two classes of shares and no special allocations. We would modify the current requirement that S corporations have only one class of stock. Companies that did not meet these criteria would become partnerships.

Closely held companies that had previously chosen flow-through status would maintain their current status as either partnerships or S corporations. We would allow continuing S corporations to issue two classes of stock on the same terms as closely held firms that transitioned from C corporation status.

2. *Transition of Companies from Closely Held to Publicly Traded Status*

Typically, new businesses start off as closely held entities and go public if and when they achieve a sufficient scale such that wider access to capital markets becomes desirable. Most highly successful entrepreneurial ventures follow this pattern.

Under current law, owners of firms must pay capital gains tax when they realize gains upon going public; these gains might never have been taxed if the firm had continued to be closely held. The benefit to the original owners of gaining access to a wider pool of capital and the ability to take some money out of the company either for portfolio diversification or personal consumption are often large enough, however, to outweigh the tax cost of earlier realization of capital gains.

We propose that owners of a company that is taken public be taxed (in a manner to be discussed below) on their accrued gains and that they then take a cost basis equal to the value of the newly publicly traded company. The owners would pay the mark-to-market tax at ordinary income rates on subsequent gains. Although future gains would be subject to mark-to-market taxation, this increased tax would be offset by the reduction in the corporate tax rate from 35 to 15 percent and the imputation credit.

The taxation of the owners' previously accrued gains would be accorded special treatment, however, to ensure that the proposal would not increase the tax penalties on going public. Under current law, the original owner is taxed only on realized gains. Under the proposal, however, the owners would also be taxed on the unrealized gains on any shares they retain. For example, suppose an entrepreneur and a group of venture capitalists invest \$100,000 in a new enterprise. These original owners later take the firm public, retaining 60 percent of their shares and selling the other 40 percent. When the shares are traded, the total market value of the firm is \$10 million. Under current law, the owners realize a capital gain on the shares they sell of \$3.96 million (\$4 million less their \$40,000 basis in the shares sold) and, if they face a 23.8 percent capital gains tax rate, pay tax of \$942,480. The remaining \$5.94 million (\$6 million less the remaining basis of \$60,000) of gain would be taxed only when realized and would escape tax if held until death. Under the proposal, however, all \$9.90 million of gain would be taxed when the company goes public. The question is the rate to apply to these gains.

As an initial matter, we believe that it is necessary to apply identical tax treatment to all of the owners' gains, both the \$3.96 million that is realized and the \$5.94 million that is not realized. Granting tax relief to only the unrealized gains would simply induce the owners to delay realization until the day after the company went public.

We aim to set a tax rate on the gains that would result in a tax burden approximately equivalent in present value to the tax the owners would pay if the company had remained private, in which case the gains would have been taxed at preferential capital gains rates upon realization or (under the proposal) at death. The tax rate that would achieve this equivalence depends on the assumed future patterns of realizations by the taxpayers, the percentage of gains that would have been held until death, the taxpayer's age and life expectancy, and the assumed rate of return of the stock. As an approximation, we

have decided to tax the gains at one quarter of the ordinary income tax rate.⁸ We would also provide an additional benefit by allowing taxpayers to include the gains in income in equal installments over a ten-year period, with any tax on unrealized gain paid by the taxpayer's estate if the taxpayer dies within the 10-year period.

In summary, when a company moves from closely held to publicly traded status, the owners would increase the basis of their shares with unrealized gains to the current market value. They would then include 25 percent of the realized and previously accrued gains in their ordinary taxable income and their investment-income surtax base over a 10-year period.

3. Transition of Companies from Publicly Traded to Closely Held Status

When companies "go private," they would retain their basis in business assets and continue to claim depreciation as they did when paying the corporate income tax. Owners would retain their cost basis in their shares, reflecting all previously taxed accrued gains. Future gains and losses would be taxed upon realization, subject to current law's preferential capital gains tax rates and loss limitations. Any unrealized gains would be taxable upon the death of the business owners. The companies would be subject to the rules for S corporations, including the proposed revision that would permit two classes of stock.

C. Treatment of Business Tax Preferences

Congress has provided credits and deductions for many activities, which are generally available on similar terms to corporations and flow-through businesses. A few features of the proposal would effectively reduce the generosity of the tax preferences provided to publicly traded businesses. The lower corporate tax rate would reduce the tax savings from deductions and the lower corporate tax liability might prevent some corporations from receiving current tax savings from all of their credits. Also, deductions or credits that reduce the corporation's tax liability would reduce the amount of imputation credits that could be attached to dividends that were paid to taxable American shareholders; the resulting shareholder tax increase would offset part of the corporate tax savings from the deductions and credits. These features would not cause a reduction in the generosity of preferences for closely held businesses.

⁸ Congressional Budget Office (2014) cites data showing that 3.6 percent of capital gains were short-term gains realized within one year, 49.6 percent were long-term gains with an average holding period of nine years, and 46.9 percent were held until death. Disregarding the portion sold within one year, 51.4 percent of gains would be realized with an average holding period of nine years and 48.6 percent would be held until death. If we assume that the owners expect 12 percent annual appreciation (reflecting the fact that some firms that go public may be relatively early in their phase of rapid growth), then the weighted average effective rate is 11.8 percent, a little more than 25 percent of the top ordinary tax rate (including the investment-income surtax).

This reduction in generosity for preferences provided to publicly traded firms could be problematic. Some tax preferences, such as the credit for research and development, arguably increase activities in which businesses might otherwise under-invest because they generate social benefits in excess of the gains to the firms that undertake them. Reducing these preferences for publicly traded businesses might cause an inappropriate reduction in the investments they promote. Moreover, even if a preference is misguided, curtailing it only for publicly traded businesses might distort the allocation of the favored activity between publicly traded and closely held businesses.

To alleviate these problems, we propose to relax the limitation on general business credits for publicly traded businesses, but not for owners of closely held businesses. We would allow publicly traded businesses to use general business credits to offset all of their current tax liability (current law allows credits to offset approximately three-quarters of tax liability) and to carry back general business credits for five years rather than one. Other possible steps that could be considered include allowing publicly traded businesses to claim selected credits against their employer payroll tax liability, converting some tax credits into direct spending programs as proposed by Dodge (1995), and disregarding the tax savings from some preferences in computing the limitation on imputation credits.

D. Treatment of Tax-Exempt Institutions and Qualified Retirement Plans

Current law grants tax-exempt status to the income of qualifying charitable organizations (such as religious organizations, universities, and non-profit hospitals) and other non-profit institutions. It also exempts from tax the investment income of qualified retirement plans, including defined benefit plans operated by employers and self-directed defined contribution plans that are either sponsored by firms for employees (such as 401(k) plans and 403(b) plans) or which individuals can set up for themselves (such as individual retirement accounts).

While all these plans benefit from tax exemption of their investment income, the income they receive from investing in corporate equity is net of federal and state income taxes paid by the company that issued the equity. In contrast, their interest income from corporate bonds and other securities is wholly tax-free because corporations can deduct interest payments from their taxable income. The proposal's reduction of the corporate income tax rate from 35 to 15 percent would provide a large benefit to tax-exempt organizations and qualified retirement plans. Based on Federal Reserve Board data, and modifying computations by Rosenthal and Austin (2016) to account for holdings of foreign corporate assets by U.S. households, we estimate that in 2015 tax-exempts and qualified retirement plans comprised about 42 percent of the sum of equity assets issued by U.S. corporations and equity assets issued by foreign corporations to U.S. households.

We seek to leave the overall tax burden that tax-exempt organizations and qualified retirement plans face on their investment income approximately unchanged from current law. We also seek to narrow the disparity in the tax treatment of their income from

corporate equities and fixed income assets. And, for simplicity, we favor imposing any new tax on the income of these institutions at a single flat rate.

To achieve these goals, we propose that tax exempts and retirement funds not receive imputation credits, which means that they would continue to bear the full burden of the remaining corporate level tax on equity income — a burden equal to roughly 15 percent of their grossed-up income from corporate equity (apart from any portion of the corporation's income that may be sheltered from U.S. tax by tax preferences or the foreign tax credit). No additional tax, on either a realization or a mark-to-market basis, would apply to these entities' dividends and capital gains. We would subject debt to similar treatment as equity by imposing a 15 percent tax on the interest income of non-profit institutions and retirement plans.

As a result, a tax rate of roughly 15 percent would apply to both the equity income and the interest income of non-profits and retirement plans. We believe this would be roughly equivalent to their tax burden under current law, which taxes their corporate equity income at a 35 percent rate through the corporate income tax and exempts their interest income. However, unlike current law, it would provide greater parity between the taxation of income from equities and fixed income assets.

E. Addressing Tax Base Volatility

Without an averaging provision, mark-to-market taxation of capital gains on corporate equity would make aggregate taxable income quite volatile.⁹ To quantify this effect, we compare the volatility of the “mark-to-market tax base,” which is a crude proxy for the sum of dividends and accrued capital gains, to the volatility of the “current tax base,” which is a crude proxy for the sum of dividends, realized capital gains on corporate equity, and corporate taxable income.¹⁰ Both bases are expressed as percentages of CBO's measure of potential GDP, for 1965 through 2012. Over this period, the standard deviation of the mark-to-market tax base is 14.5 percent, far higher than the 2.1 percent standard deviation of the current tax base.

⁹ It is far from clear that volatility would increase for individual taxpayers. Taxing gains each year as they accrue, rather than taxing many years of accrued gains in the year of sale, might well reduce volatility.

¹⁰ The mark-to-market tax base consists of dividends reported on individual income tax returns (from Statistics of Income data) plus the change in the market value of equity holdings by U.S. households, as reported by the Federal Reserve Board of Governors. The latter measure is imperfect because it includes net issuance of new equity and net purchases of equity by Americans from other shareholders and also includes changes in the market value of corporate equity holdings by nonprofit institutions and tax-preferred defined contribution retirement plans. The current tax base consists of dividends plus realized capital gains reported on individual tax returns plus taxable corporate income, all from Statistics of Income data. The capital gains measure is imperfect because it includes realized capital gains on assets other than corporate equity. We do not refine the measures further, as they are sufficient to demonstrate the dramatic increase in tax base volatility that would result from moving to mark-to-market taxation.

Such increased volatility might have adverse implications. Increased revenue volatility would make it difficult for states that conformed to the federal system's use of mark-to-market taxation to comply with their balanced-budget requirements. Increased volatility might also impose liquidity costs. For example, a taxpayer facing a 40 percent marginal tax rate whose stock appreciated 30 percent during a year would owe tax greater than 9 percent (12/130) of the end-of-year market value, which might force the taxpayer to sell shares and incur transaction costs to pay the tax. Moreover, the increased volatility might undermine public acceptance of mark-to-market taxation, as taxpayers might not perceive their large accrued incomes when the stock market rose as genuine, particularly if they believed that the gains could be reversed in the near future.

To address those concerns, we propose a smoothing system for accrued income from corporate equity, which would apply under the investment income surtax as well as the individual income tax.¹¹ To maintain neutrality between distributed and undistributed corporate income, smoothing would apply to the sum of dividends and accrued capital gains (including any gains that the taxpayer realized). Smoothing would only apply to publicly traded corporate equity. Imputation credits would be smoothed along with the dividends to which they were attached.

We recommend a procedure that we call geometric smoothing. Under this procedure, a fixed fraction (the "smoothing parameter") of each year's accrued equity income would be included in current taxable income. The remainder would be placed in a pool of unrecognized income. In each year, a fraction of the pool balance equal to the inclusion parameter would also be included in taxable income. When a taxpayer died, her pool of unrecognized gains would be included in taxable income for the year of death.

We recommend that the smoothing parameter be set at 0.2. Then, 20 percent of the current year's accrued equity income would be recognized, along with 20 percent of the pool's balance at the end of the preceding year. The other 80 percent of the current year's accrued equity income would be placed in the pool. Note that 16 percent of the current year's accrued equity income would be recognized in the following year, because 20 percent of the pool balance, which would include 80 percent of the current year's income, would be recognized. Similarly, 12.8 percent of the current year's income would be recognized in the following year.

The advantage of geometric smoothing is that it reduces the annual variability of mark-to-market income across many years without the need for taxpayers to track the year-by-year past history of income. A single number (the balance in the pool) would be computed at the end of each year; the balance would reflect mark-to-market income from all years the smoothing system was in effect. For example, with a smoothing parameter of 0.2, the pool at the end of a year would include 80 percent of that year's income, 64 percent of the previous year's income, 51.2 percent of the income from two years earlier, and so on.

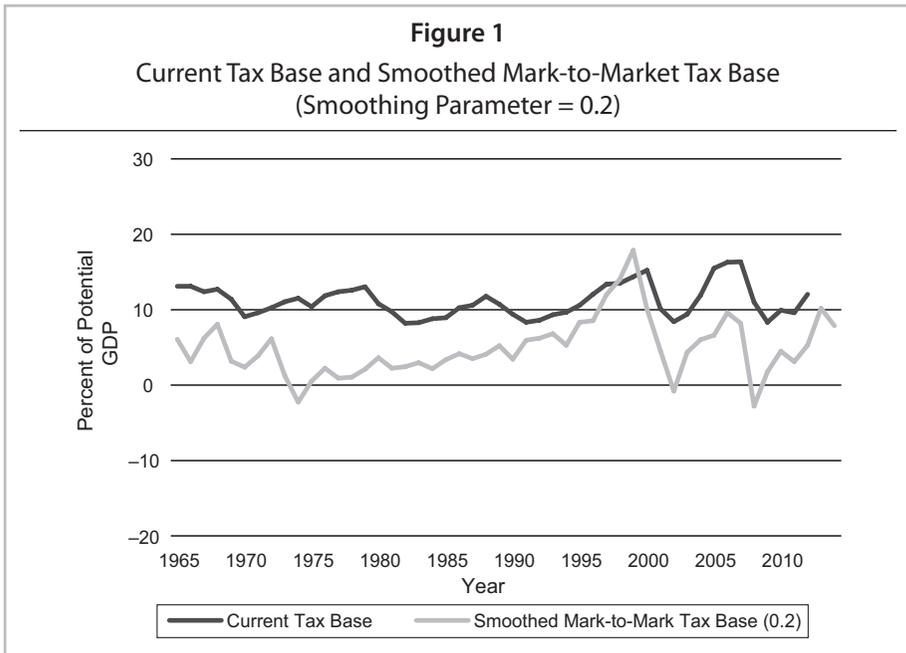
¹¹ Louie (1982) and Thuronyi (1983) proposed averaging provisions under mark-to-market taxation, although they did not specify any details.

Figure 1 depicts smoothed accrued gains using the 20 percent inclusion parameter.¹² The standard deviation of the smoothed gains is 3.8 percent, a dramatic reduction from the unsmoothed tax base, although still approximately double the standard deviation of the current tax base.

Following Thuronyi (1983), we propose that shares of publicly traded corporate equity held at the end of the year be valued based on the average share price in December rather than the closing price on the last trading day in December. This change would have only a slight effect on volatility, but would avoid making the tax liability of millions of taxpayers sensitive to market swings on the last trading day of December and would help prevent price manipulation through strategic trading of shares of thinly traded stock.

F. Transition

The reduction in corporate income tax rates and the introduction of the imputation credit would be phased in over the 10-year period from 2018 through 2027; the increase in individual income tax rates on capital gains and dividends would also be phased in



¹² The smoothed mark-to-market tax base is computed for 1965 through 2014, but standard deviations are computed using only the 1965–2012 values for comparability. The end-of-1964 pool balance is set equal to 18.7 percent of 1964 potential GDP, because the pool balance would converge to 18.7 percent of annual potential GDP if nominal annual potential GDP growth were constant at 6.90 percent and the mark-to-market tax base were constant at 5.90 percent of potential GDP, the 1965–2012 sample average values.

over the same time period. The gradual phase-in would limit the windfall gains and losses on existing investments and the associated accounting write-downs of deferred tax assets and deferred tax liabilities. We believe that a gradual phase-in of the rate changes is a simpler way to limit these effects than individualized transition rules for particular tax provisions.

Although the increase in individual income taxes on dividends and capital gains would be phased in over a 10-year period, the changeover from realization-based taxation to mark-to-market taxation would occur immediately upon the effective date. For publicly traded assets other than corporate equity, we would apply mark-to-market taxation on a cutoff basis. The January 1, 2018 holders would remain subject to realization taxation while subsequent holders of these grandfathered assets, and holders of newly created assets, would be subject to mark-to-market taxation.

The cutoff approach would not be suitable for corporate equity, however. A prompt move to mark-to-market taxation would be required to prevent corporations from deferring shareholders' taxes by accumulating earnings and to alleviate the substantial lock-in effects that would persist for decades if existing shareholders were taxed on a realization basis. On January 1, 2018, the cost basis of all corporate equity shares would be increased to their average fair market value in December 2017. Beginning in 2018, mark-to-market taxation with geometric smoothing would apply to corporate equity, and the current limitation on capital loss deductions would be repealed with respect to newly accruing losses. A certain amount, perhaps the first \$5,000 (\$10,000 for married couples), of previously accrued equity gains would be disregarded. Gains above the excluded amount would receive a transitional treatment similar to that discussed above for gains associated with a closely held business going public.

V. EFFECTS OF THE PROPOSAL

A. Revenue Effects

Our preliminary estimates, obtained using the Tax Policy Center's individual income tax micro-simulation model and other data, indicate that the fully phased in proposal is close to revenue neutral. Not accounting for behavioral effects, it would reduce federal tax liability by \$23 billion (0.11 percent of GDP) in calendar year 2018 and by \$11 billion (0.04 percent of GDP) in calendar year 2025 (Table 1). The lower revenue loss in 2025 mainly reflects a decline in baseline corporate receipts as a share of GDP over the next decade in CBO's baseline projections. Congressional Budget Office (2016) attributes a portion of the projected decline in corporate receipts as a share of GDP to increased corporate tax avoidance through income shifting and inversions, thereby recognizing the concerns about the long run viability of the corporate income tax that our proposal is designed to address.

The above estimates assume that corporate behavior would be unaffected by the lower corporate statutory rate. However, with a reduced tax rate, U.S. corporations would be likely to shift reported profits from formerly lower-tax jurisdictions to the

Table 1

Components of Change in Tax Liabilities from Proposal to Replace Portion of Corporate Income Tax with Mark-to-Market Tax on Income of Shareholders
— No Change in Corporate Behavior (\$Billions)

Components of Revenue Change	2018	2025
Reduce Corporate Tax Rate from 34.7 Percent to 15 Percent	-194.0	-234.4
Reduction in Corporate Tax Receipts	-212.0	-257.1
Taxes on Increased Individual Incomes	17.9	22.8
Substitute Mark-to-Market Tax for Current Law Taxes on Dividends and Realized Gains	94.5	121.4
Eliminate Current Taxes on Dividends and Capital Gains	-114.8	-154.1
Impose Mark-to-Market Tax on Income from Corporate Equity at Ordinary Income Rates	229.0	300.9
Allow Credit of 17.5 Percent of Dividends Received	-19.7	-25.4
Impose a 15 Percent Tax on Income from Fixed Income Assets within Individual Owned Tax-Preferred Retirement Accounts	47.4	59.5
Impose a 15 percent tax on Income from Fixed Income Assets of Domestic Nonprofit Institutions	11.6	14.5
Tax Unrealized Capital Gains from Non-Publicly-Traded Assets at Death	17.8	28.1
TOTAL REVENUE CHANGE	-22.8	-10.9

United States. A number of studies cited in the recent OECD report on Base Erosion and Profit Shifting (OECD/G20, 2015) have estimated that the corporate tax base is sensitive to tax rate differences between countries.¹³ When we apply the results of a study by three researchers at the Joint Committee on Taxation (Dowd, Landefeld, and Moore, 2016), whose estimates were in the middle of the range of these studies, we find that this behavioral feedback would offset slightly under a quarter of the corporate revenue loss. Taking this corporate response into account, the proposal would raise net tax liability by about \$28 billion in 2018 and about \$51 billion in 2025 (Table 2).

The static revenue effects in Table 1 reflect the net impact of gains and losses from various components of the proposal. We estimate that the reduction in the average cor-

¹³ OECD (2015) reports estimated semi-elasticities of pre-tax profits with respect to tax rates ranging from 0.4 to 3.5, where the semi-elasticity, b , comes from an equation with the form: $\ln(\text{pre-tax profits}) = a + b \times (1 - MTR)$, where MTR is the marginal tax rate on corporate profits. The studies use various definitions of corporate profit and tax rate variables.

Table 2
Components of Change in Tax Liabilities from Proposal
to Replace Portion of Corporate Income Tax
with Mark-to-Market Tax on Income of Shareholders –
With Corporations Reporting Increased U.S. Taxable Profits
(\$Billions)

Components of Revenue Change	2018	2025
Reduce Corporate Tax Rate from 34.7 Percent to 15 Percent	-143.5	-173.0
Reduction in Corporate Tax Receipts	-161.5	-195.7
Taxes on Increased Individual Incomes	17.9	22.8
Substitute Mark-to-Market Tax for Current Law Taxes on Dividends and Realized Gains	94.5	121.4
Eliminate Current Taxes on Dividends and Capital Gains	-114.8	-154.1
Impose Mark-to-Market Tax on Corporate Equity Income at Ordinary Income Rates	229.0	300.9
Allow Credit of 17.5 Percent of Dividends Received	-19.7	-25.4
Impose 15 Percent Tax on Income from Fixed Income Assets within Tax-Preferred Retirement Accounts	47.4	59.5
Impose 15 Percent Tax on Income from Fixed Income Assets of Domestic Nonprofit Institutions	11.6	14.5
Tax Unrealized Capital Gains from Non-Publicly-Traded Assets at Death	17.8	28.1
TOTAL REVENUE CHANGE	27.7	50.6

Notes: Estimates assume reported corporate taxable income is determined as $\ln(Y) = a + b \times (1 - MTR)$, where Y is corporate taxable income, MTR is the top corporate marginal tax rate, and a and b are constants.

porate tax rate from 34.7 to 15 percent,¹⁴ combined with elimination of the domestic production deduction, would reduce revenues by \$212 billion in 2018 and by \$257 billion in 2025. This decline in corporate tax liabilities would be partially offset by increases in individual income and payroll tax liabilities of \$18 billion in 2018 and \$23 billion in 2025. This rise in other liabilities occurs because, with GDP fixed, reduced corporate tax payments must be offset by increases of the same amount of individual incomes. In allocating this increased income to individuals, we follow the TPC incidence assumption that 60 percent of corporate tax burdens are borne by corporate equity owners, 20 percent by all recipients of capital income, and 20 percent by recipients of

¹⁴ The average corporate tax rate on taxable income is 34.7 instead of 35 percent, reflecting the fact that a small portion of corporate income is taxed at a reduced rate under the graduated corporate rate schedule.

labor compensation (Nunns, 2012). The figure reported on this line does not include the increase in shareholder income, which is reflected in the calculation of the effects of changes in shareholder taxation.

The estimated effect of changes in the taxation of shareholder income has three components. First, the elimination of the current tax on capital gains realizations on publicly traded shares and qualified dividends reduces tax liabilities by \$115 billion in 2018 and by \$154 billion in 2025. We compute the effects of eliminating current law taxation of capital gains and dividends using the Tax Policy Center (TPC) micro-simulation model of individual income tax returns. Second, taxing accrued income from corporate equity (dividends plus accrued gains) received by taxable individuals increases individual income tax liability by \$229 billion in 2018 and by \$300 billion in 2025. We estimate this gain by applying a nominal rate of return of 8.33 percent to the imputed value of corporate equities in the TPC model (based on data from the Federal Reserve Board Survey of Consumer Finances) and distributing the estimate of additional taxable income among taxpayers in proportion to their realized capital gains.¹⁵ Third, the imputation credit, estimated as equal to 17.5 percent of dividends received, reduces revenue by about \$20 billion in 2018 and by \$25 billion in 2025. Overall, the substitution of mark-to-market taxation at ordinary rates with a shareholder credit for the current taxation of realized capital gains and qualified dividends at preferred rates raises about \$95 billion in 2018 and \$121 billion in 2025.

There are three additional components of revenue gain. First, we impose a 15 percent tax on interest income within tax-preferred retirement accounts, which raises \$48 billion in 2018 and \$60 billion in 2025. Second, we impose a 15 percent tax on interest income received by non-profit institutions, which raises an estimated \$12 billion in 2018 and about \$15 billion in 2025. Finally, we estimate that the taxation of unrealized gains at death from non-publicly-traded assets raises \$18 billion in 2018 and \$28 billion in 2025.

We also present an illustrative estimate of the revenue effects under the assumption that corporations respond to the lower rate by reporting a larger share of their global profits in the United States. Based on Dowd, Landefeld, and Moore (2016), we assume that corporate taxable income has a semi-elasticity of 1.44 with respect to one minus the average statutory corporate tax rate. To estimate the effects on corporate taxable income, we set the average statutory corporate rate equal to 38.7 percent under current law and 20.2 percent under our proposal, with both rates reflecting an assumption of an average state rate of 6.15 percent, which is deductible in computing federal tax liability. With the behavioral response using this semi-elasticity, corporate taxable income increases by slightly over 30 percent when the federal tax rate is cut from 34.7

¹⁵ The estimated 8.33 percent return is derived by combining the average growth rates in equity values (estimated from a logarithmic regression of the changes in the nominal value of the Standard & Poor's 500 index on a linear time trend) with average dividend yields over the same period. We then adjust this estimate downward to reflect the difference between CBO's projected long-run growth in the GDP deflator and the compounded annual growth rate in the GDP deflator over the time period that was used to estimate nominal equity returns.

percent to 15 percent. After accounting for the effects of tax credits and removal of the domestic production deduction, the behavioral response cuts the loss in corporate receipts by about 24 percent.

The result is that corporate receipts decline by \$162 billion in 2018 and \$196 billion in 2025 (Table 2), compared with declines of \$212 billion and \$257 billion with no behavioral response. It is unclear, however, how those corporate receipts map onto changes in corporate after-tax profits. We make the simplifying assumption that the income shifts keep after-tax profits unchanged, so that the individual tax offsets computed with no corporate behavioral response are unchanged.¹⁶

The estimates presented here are based on the fully phased-in proposal and do not account for the transitional effects and the geometric smoothing provision. Both the corporate rate cuts and the increases in individual tax rates on accrued gains would be phased in, reducing both the positive and negative revenue effects in the early years after enactment. The one-time tax on existing capital gains upon enactment, although imposed at a favorable rate, would provide some acceleration of federal receipts in the early years when the tax was being paid. In contrast, the geometric smoothing provision would, on average, delay the recognition of income and would permanently lower the present value of receipts. The estimates also do not account for the small asset-holder exemption.

These estimates should be viewed as illustrative, as they are based on assumptions that can be refined further and because they omit some revenue-raising and revenue-losing effects of the proposal.¹⁷ The estimate indicates, however, that the proposal is likely to be close to revenue neutral. Toder and Viard (2016) provide further discussion of our methodology and some unresolved issues.

In summary, our proposal results in a fairly modest long-term revenue loss in the absence of a corporate behavioral response and a modest revenue gain assuming a moderate degree of shifting based on a representative estimate from the literature. The net revenue gain is larger (or the loss is smaller) in 2025 than in 2018, reflecting a decline over time in the projected ratio of corporate receipts to GDP in the latest CBO baseline.

¹⁶ To the extent that the increased taxable income reflects a shift in reported income to the United States from countries with average tax rates between 20.2 percent and 38.7 percent, after-tax corporate profits will increase. In that case, the individual income tax base would increase and the revenue gain would be larger than shown in Table 2. But to the extent corporations are shifting income from countries with average rates below 20.2 percent, corporate taxes paid to all governments will increase and after-tax profits will decline.

¹⁷ For example, in estimating the revenue from taxing accrued shareholder income, we use an expected total yield on equity assets based on historical data. The after-tax yield to shareholders, however, would be expected to increase under the proposal because of the lower corporate tax rate and because the resulting increased income would be taxable at ordinary income rates. We use projected dividend payments based on current law to estimate the cost of the dividend tax credit. Declared dividends, paid in either cash or stock, would likely increase in order to relieve taxable shareholders of the burden of double taxation. We assume, however, that anti-streaming rules would be effective, so that corporations could not pay dividends to taxable shareholders while excluding non-profits, qualified retirement funds, and foreign shareholders, who would not be allowed to claim credits.

The results differ substantially from those in Toder and Viard (2014), which estimated a revenue loss equal to about half of baseline corporate receipts, for three reasons. First, some policy changes — the retention of a 15 percent corporate income tax (which retains some taxation of equity income of non-profits, retirement plans, and foreign shareholders), the 15 percent tax on interest income of non-profits and retirement plans, and the taxation at death of unrealized gains on non-publicly-traded assets — raise additional revenue. Second, based on historical data, we are assuming a somewhat higher rate of return on corporate shares than we assumed previously. Third, the estimated revenue loss from the corporate tax cut is reduced because baseline corporate receipts are now projected to grow more slowly than GDP. Assuming a reasonable response of the corporate tax base to a lower rate makes the estimates look even more favorable.

B. Distributional Effects

The proposal would increase the tax burden in the top 1 percent of the income distribution and reduce taxes, as a share of income, by roughly equal amounts in all other income groups. For example, in 2025, federal taxes would increase by slightly over 1 percent of income for the top 1 percent of households, but would decline by between 0.25 and 0.32 percent of income in all other groups (Table 3). On average, households would receive a slight tax cut, reflecting the very modest static revenue loss in 2025. The net changes in tax burdens represent offsetting effects of various parts of the proposal. Each of the provisions would have their largest impacts on the highest income taxpayers, but the degree to which the incidence of the tax changes is differentially borne by the highest income taxpayers varies among the provisions.

One of the forces driving the results is the difference in the assumed incidence of corporate and shareholder taxes, as a portion of the corporate income tax is shifted to labor while shareholder taxes are not shifted to labor. Because the corporate tax penalizes investment in the United States, it lowers the U.S. capital stock and reduces American workers' real wages; shareholder taxes, which apply regardless of where the investment is located, do not have this effect.¹⁸ The movement from corporate to shareholder taxation therefore makes the tax law more progressive.

C. Macroeconomic Effects

The proposal would have far-reaching macroeconomic effects. The following analysis provides a general overview.¹⁹

¹⁸ Shareholder taxes could be shifted to labor to some extent if they reduced saving, a potential effect not included in the incidence assumptions.

¹⁹ The discussion in this section draws on a thoughtful analysis by Alan Auerbach, but we are solely responsible for our conclusions.

Table 3
Distributional Effects of Corporate Tax Reform Proposal, Tax Year 2025

Income Group	Change in After-Tax Income (Percent)	Average Federal Tax Change	Change in Average Federal Tax Rate (Percentage Points)
Bottom quintile	0.27	-49	-0.26
Second quintile	0.29	-127	-0.27
Middle quintile	0.34	-248	-0.29
Fourth quintile	0.38	-449	-0.31
80–90 th percentiles	0.40	-717	-0.32
90–95 th percentiles	0.39	-959	-0.31
95–99 th percentiles	0.34	-1,367	-0.25
Top 1 percent	-1.62	37,804	1.08
All	0.05	-49	-0.04

Source: Tax Policy Center simulations

1. Increased Investment in United States

The proposal would lower taxes on investing and on booking profits in the United States. As discussed above, the corporate income tax rate reduction would increase real investment in the United States and the amount of profits booked in the United States. The magnitudes of these effects are difficult to determine because the past rate changes on which empirical estimates, such as the previously cited estimates of income shifting by Dowd, Landefeld, and Moore (2016), are based do not include such a large rate change by a large country. The increase in real investment in the United States would drive up before-tax wages and would drive down before-tax rates of return on capital. Rebooking of profits, through transfer pricing schemes and similar strategies, would have little or no effect on wages and capital returns.

Home bias might limit the extent of the real investment inflow. Savers often prefer to place their funds in companies that invest primarily in their home country, even if higher after-tax returns are available in other countries. Home bias may become less significant as the economy becomes more globalized; if that happens, a low corporate income tax rate will become an even more powerful magnet for real investment.

The impacts would also depend on foreign governments' reaction to the adoption of the proposal. If other countries cut their corporate income tax rates, the United States' competitive position (for purposes of attracting real investment and reported profits) would improve by less than if other countries keep their rates unchanged. Nevertheless, the competitive position of the United States would improve to some extent because

other countries would be unlikely to fully match the 20-percentage-point rate reduction. Tax havens already have corporate income tax rates at or near zero and would therefore have little room to cut their rates; industrialized countries might reduce their tax rates to some extent, but many of them now have rates in the 20 to 25 percent range and they would probably not reduce their rates to extremely low levels.

2. Reduced Returns to Americans' Saving

Americans would likely receive lower after-tax returns on income from shares in corporations investing in the United States, as the inflow of capital would reduce pretax returns. American savers might therefore shift their investments to other assets, such as flow-through businesses, housing and corporate bonds, driving down their pretax yields, even as funds from foreign savers flowed in to increase corporate investment.

Americans might also reduce their total saving to some extent. If investment rose in the United States while saving declined or remained largely unchanged, there would be an increased capital inflow into the United States. The inflow would be accompanied by an increased trade deficit in the short run as Americans financed more of their domestic investment with funds from abroad. This is arguably what happened in the 1980s when the corporate income tax was reduced, boosting investment at the same time that federal budget deficits eroded national saving. In the long run, there would be an increase in the net trade surplus as the additional investments in the United States generate income for foreign investors.

3. Effect on Share Prices

The value of corporate shares would likely rise in the short run. The corporate tax reduction would reduce the value of deferred tax liabilities. Also, the “new view” of dividend taxation states that share prices are depressed when dividends face a higher effective tax rate than capital gains. That condition holds today because, although dividends and capital gains generally face the same statutory tax rates, capital gains taxes are deferred until the gains are realized and are exempt at death. The proposal would put both types of income on parity by taxing capital gains as they accrue, thereby eliminating the tax differential against dividends. According to the new view, set forth in Auerbach (1979) and Bradford (1981), the elimination of the differential would boost stock prices.

D. Other Effects

We discuss other effects of the proposal in Toder and Viard (2016). We conclude that the proposal would modestly strengthen automatic fiscal stabilizers by making federal revenue more sensitive to the business cycle (even with the geometric smoothing system). We also conclude that the proposal would not have a significant disruptive effect

on state and local tax systems and that recent compliance measures adopted by Congress and the IRS should suffice to prevent evasion of the mark-to-market tax through foreign asset holdings. We also discuss the effects of the proposal on financial reporting and provide additional discussion of the possible reaction of foreign governments.

VI. CONCLUSIONS

This paper has presented a detailed analysis of our proposal to replace a large share of the current U.S. corporate income tax with a tax at ordinary income rates on the net accrued income of corporate shareholders. We explained the rationale for the proposal, presented proposed solutions to address major design issues and to ameliorate problems the proposal might create, and discussed how the proposal would affect federal revenues, the distribution of the tax burden, and long-run economic performance.

While no proposal is perfect, we believe that enactment of a reform of this type would substantially improve the way the United States taxes income arising in publicly traded corporations and provide a much better solution to problems with the corporate income tax than reform proposals currently under active consideration in the political arena. We hope that it stimulates more discussion of the need to fundamentally rethink our business tax rules.

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The authors have no financial arrangements that might give rise to conflicts of interest with respect to the research reported in this paper.

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