



**Committee on Ways and Means
Tax Reform Working Groups
April 9, 2013**

We, the Co-Chairs of the RATE Coalition, Elaine Kamarck and Jim Pinkerton, write to you today to reinforce the need for comprehensive tax reform in order to improve economic growth and boost job creation. Reform must include lowering the U.S. corporate tax rate. Today, the U.S. statutory corporate tax rate of 35% is the highest in the industrialized world. This rate, together with our complicated tax code, makes the U.S. a less attractive place for investment, hindering GDP growth while also blunting the competitiveness of U.S. businesses. The main goal of tax reform should be a corporate rate close to the OECD average of 25%.

The RATE Coalition, whose membership includes 30 companies and associations that represent over 30 million U.S. jobs across every state in the union, stands with Democrats and Republicans who are serious about making pro-growth tax reform a reality. Our coalition represents companies in nearly every sector of the U.S. economy from those who build planes, trains and automobiles, to those who sell consumer goods, build broadband and wireless networks, provide financial services and healthcare, create media content, ship goods and produce our nation's energy. Our members are united in their desire to see a more competitive U.S. economy.

Like many members of Congress on both sides of the aisle, we believe that tax reform must be done in an equitable manner. Under the current tax system, Congress picks winners and losers. The Coalition does not believe that certain companies deserve special rates. Instead, all U.S. companies should make decisions based on what is best for their businesses, not what's best for their tax rate. Tax expenditures, such as those identified by the Joint Committee on Tax, have been important tools for job creation, but none of these should be considered sacred cows. For a meaningful reduction in the statutory rate – nearer the more globally competitive OECD average rate of 25 percent – these expenditures should be on the table.

Reform is sorely needed. Over the last decade the United States has lost 46 headquarters of Fortune 500 companies. These headquarter operations represent thousands of good jobs right here in the U.S. A recent study from Ernst & Young found that as a result of other countries lowering their corporate rates while the U.S. has stood still, U.S. GDP will be between 1.2 percent and 2.0 percent smaller in 2013. However, America's world-leading corporate rate, is not just a drag on the economy at large, it also impacts hardworking middle class families. The same study found that real wages may be depressed by more than 1 percent over the long-term. And, while the economy has again begun to create jobs, the unemployment rate still remains too high at over 7.7 percent and this does not account for those who have stopped looking for work. The historical, broader measure of unemployment and underemployment, for example, is currently at 14.3 percent. Policymakers in both parties know we can – and must – do better.

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We believe that comprehensive tax reform – reflective of the sort enacted under the 1986 Tax Reform Act – is a critical part of the answer. Reform that significantly lowers rates will enhance America’s competitiveness, boost job growth and improve economic output.

We remember 1986, when Democrats and Republicans came together to achieve the historic legislative breakthrough on comprehensive tax reform. It was an exciting time. After all these years, the legislative achievement of that year is still talked about as a shining moment in American politics. Both parties had to reach across the partisan aisle for the common good – and they did. Today, some wonder whether it might ever be possible to replicate that sort of bipartisan accord. For our part, we are not only optimistic, but actually confident that comprehensive tax reform is achievable. In fact, we believe that at this point in 2013 the signs look better for tax reform than they did at the same point in 1986.

Over the last year, both Democrats and Republicans have expressed support for such a policy. Indeed, the 2012 Democratic Platform, adopted last summer in Charlotte, asserts, “We are also committed to reforming the corporate tax code to lower tax rates for companies in the United States.” The Democratic Platform also states “We Democrats support lowering the corporate tax rate while closing unnecessary loopholes.”

And Republicans, long in favor of tax reform, also echoed calls in their party platform: “To level the international playing field, and to spur job creation here at home, we call for a reduction of the corporate rate to keep U.S. corporations competitive internationally.”

We are also encouraged by leadership from the White House. During his confirmation hearing before the Senate Finance Committee, Treasury Secretary Jack Lew said, “I very much agree that business tax reform where we broaden the base and lower the rate would be very important to getting our economy moving again.” And he added, “I think a reformed tax system with a lower rate and that encourages investment in the United States and creates jobs in the United States would be good for American workers.” President Obama also used the State of the Union Address this year to call for “bipartisan, comprehensive tax reform.” And members of both parties have backed a revenue-neutral approach to corporate tax reform.

Finally, the leadership coming from the Ways and Means Committee is critical to achieving comprehensive tax reform. House Ways and Means Committee Chairman Dave Camp, R-Mich., has been unequivocal when he announced at the Tax Foundation’s annual dinner in November that the Ways and Means Committee will write, mark up, and pass tax-reform legislation in 2013. He said, “We intend to move a comprehensive tax-reform bill in 2013—no matter what,” And the sentiment was underlined when Speaker John Boehner set it as the House’s top priority, reserving H.R. 1 as the bill number for tax reform. Other Ways and Means Members have also publicly called for moving forward on tax reform now. For example, at a recent RATE event on Capitol Hill three prominent members of the committee: Congressmen Roskam, Neal and Larson expressed a desire for tax reform and a return to regular order on Capitol Hill. We applaud these sentiments and stand ready to support the Committee as it seizes the opportunity to enact meaningful reform for the first time in over 25 years.

As the Ways and Means working groups move forward, we hope that you will remain focused on the goal of crafting comprehensive tax reform that will result in a lower rate for *all* U.S. companies. The choices may be difficult, but in order to achieve the reform we need, decisions must be made in an equitable manner that will provide the U.S. with a significant reduction in the overall statutory rate and a tax code that has is simpler and provides greater certainty.

If done correctly, we can replicate the success achieved under President Reagan and House Speaker Tip O'Neill. Together, in a bipartisan manner, we can create a tax system that benefits the American economy, American companies and American workers.

Respectfully,

Elaine Kamarck & James Pinkerton
RATE Co-Chairs

Attachments:

- Mission and Principles Statement of the RATE Coalition
- Letter from RATE Member Company CEOs, dated 04/01/2013
- Ernst & Young: "Macroeconomic Effects of Lower Corporate Income Tax Rates Recently Enacted Abroad"
- Ernst & Young: "Benefits of a Lower Corporate Tax Rate"



About Us:

In today's global economy, America's tax system must reflect the dynamic and innovative marketplace in which all businesses compete. RATE is a coalition of businesses, associations and other like-minded groups that are joining together to advocate for sound and equitable reforms to the tax code that will restore the competitiveness of the United States as a place to invest and grow, and boost job creation and economic growth.

Mission:

To reform the tax code, making it fairer and simpler and improving the prospects of growth and jobs in the U.S. economy by reducing the corporate income tax rate to make it more competitive with our nation's major trading partners.

Principles:

- ✓ We believe that a lower corporate tax rate would better allow U.S. businesses to compete in today's globalized marketplace;
- ✓ We believe that the best means of achieving a more competitive tax system is through a direct reduction in the overall corporate tax rate;
- ✓ We believe that a lower corporate tax rate would benefit both national and international U.S. companies and would increase incentives to invest in the United States, enhancing U.S. economic and job growth.
- ✓ We believe that a lower corporate tax rate will benefit American workers, American consumers and American small businesses.
- ✓ While we believe a lower corporate tax rate will justify itself via increased economic growth, we understand the budget implications of lowering the rate. As such, if necessary to facilitate a meaningful reduction in the corporate tax rate, corporate tax base-broadeners should be on the table.



April 1, 2013

The Honorable Dave Camp
Chairman
House Committee on Ways and Means
United States House of Representatives
1102 Longworth House Office Building
Washington, DC 20515

The Honorable Max Baucus
Chairman
Senate Committee on Finance
United States Senate
219 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sander Levin
Ranking Member
House Committee on Ways and Means
United States House of Representatives
1102 Longworth House Office Building
Washington, DC 20515

The Honorable Orrin Hatch
Ranking Member
Senate Committee on Finance
United States Senate
219 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairmen Camp and Baucus and Ranking Members Levin and Hatch:

We write to you today to reinforce the need for comprehensive tax reform in order to improve economic growth and boost job creation. It has been one year since Japan lowered its corporate tax rate, leaving the U.S. atop the industrialized world as the country with the highest statutory corporate rate. Coupled with our complicated tax system, this rate makes American businesses less competitive and makes the U.S. a less attractive place for investment, ultimately harming businesses, investors, workers and consumers.

Twenty five years ago, the U.S. had one of the lowest corporate tax rates among members of the Organization for Economic Cooperation and Development (OECD). Today, at 35 percent, the top federal statutory corporate tax rate is 10 percentage points above the OECD average and nearly 15 points higher when state and local taxes are included. The costs to our economy are significant and already being realized. According to a new Ernst & Young study, GDP in 2013 is expected to be between 1.2 and 2.0 percent lower as a result of our OECD-leading corporate tax rate. Simply put, the U.S. can no longer afford to stand still.

As leaders in Congress, each of you has called for tax reform that will put our economy on track toward sustainable, long-term growth. Over the last year, President Obama has pledged to make tax reform a priority. Speaker Boehner and leaders from both sides of the aisle have also made repeated calls for tax reform. We applaud these calls and believe that now is the time to act.

As members of the RATE Coalition, representing 30 companies and organizations with more than 30 million U.S. employees, we stand ready to support your efforts to make the U.S. more competitive. We know that some choices may be difficult and understand that base-broadeners, such as eliminating tax expenditures, may be necessary to achieve the significant reduction in the statutory rate that is required for the U.S. to better compete globally.

It has been more than a quarter century since comprehensive tax reform was last enacted and, like in 1986, we face a divided government with many doubting our chances of success. However, we are confident that bipartisan reform – reinforced by your leadership – will put us on a path that leads to broad economic growth and job creation. President Reagan and Speaker of the House Tip O’Neill achieved meaningful reform and we believe that it is possible again today.

As business leaders, we consider comprehensive tax reform with a significant corporate tax rate reduction to be a top priority for our companies and our country. Your efforts to date have made tax reform in 2013 a possibility. We stand ready to support you in making it a reality.

Respectfully,

Martin J. Barrington
Chairman and Chief Executive Officer
Altria Group, Inc.

Edward R. Hamberger
President and Chief Executive Officer
Association of American Railroads

Randall Stephenson
Chairman and Chief Executive Officer
AT&T Inc.

Jim McNerney
Chairman, President and Chief Executive Officer
The Boeing Company

Larry Merlo
President and Chief Executive Officer
CVS Caremark

Frederick W. Smith
Chairman of the Board and Chief Executive Officer
FedEx Corporation

Joseph Hinrichs
President, The Americas
Ford Motor Company

Glenn Murphy
Chairman and Chief Executive Officer
Gap Inc.

Thomas J. Falk
Chairman and Chief Executive Officer
Kimberly-Clark

Gregory B. Maffei
President and Chief Executive Officer
Liberty Media Corporation and
Liberty Interactive Corporation

Marillyn Hewson
Chief Executive Officer and President
Lockheed Martin Corporation

Terry J. Lundgren
Chairman, President and Chief Executive Officer
Macys, Inc.

The Hon. Dave Camp
The Hon. Sander Levin
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The Hon. Max Baucus
The Hon. Orrin Hatch

Matthew Shay
President and Chief Executive Officer
National Retail Federation

William Swanson
Chairman and Chief Executive Officer
Raytheon Company

Daniel M. Delen
President and CEO
Reynolds American Inc.

Thomas A. Fanning
Chairman, President and Chief Executive Officer
Southern Company

Glenn A. Britt
Chairman and Chief Executive Officer
Time Warner Cable

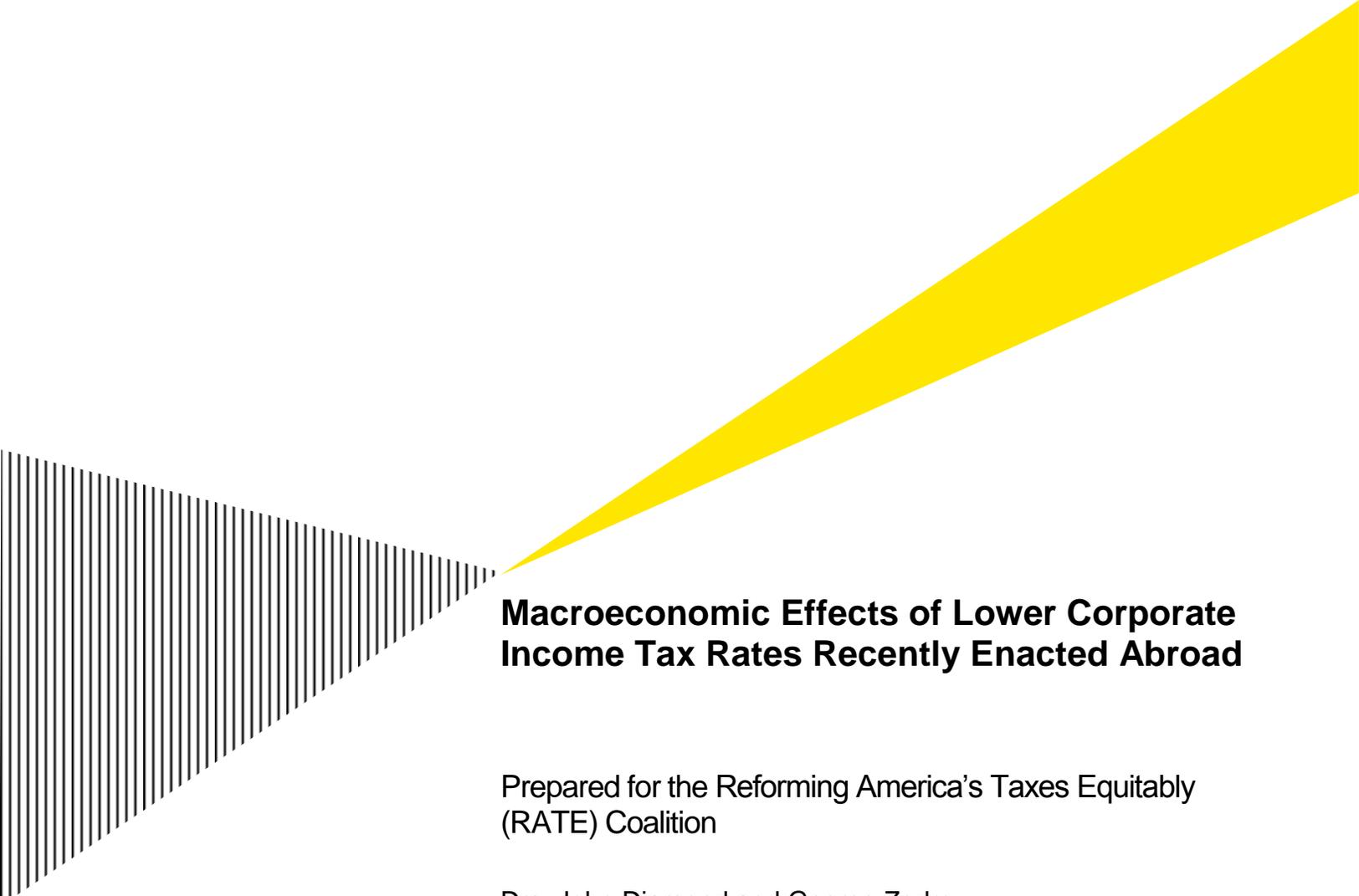
D. Scott Davis
Chairman and Chief Executive Officer
United Parcel Service

Lowell McAdam
Chairman and Chief Executive Officer
Verizon Communications Inc.

Philippe Dauman
President and Chief Executive Officer
Viacom Inc.

Robert A. Iger
Chairman and Chief Executive Officer
The Walt Disney Company

cc: President Barack Obama
Speaker John Boehner
Minority Leader Nancy Pelosi
Majority Leader Harry Reid
Minority Leader Mitch McConnell



Macroeconomic Effects of Lower Corporate Income Tax Rates Recently Enacted Abroad

Prepared for the Reforming America's Taxes Equitably
(RATE) Coalition

Drs. John Diamond and George Zodrow
Tax Policy Advisers LLC

and

Dr. Robert Carroll
Ernst & Young LLP

March 2013

Executive summary

This report estimates the effects on the US economy of the lower corporate income tax (CIT) rates enacted in the other major OECD countries over the past three decades. These rate reductions, which reflect the responses of the major industrialized countries to the combination of economic globalization and increasing tax competition among nations, have served as a major catalyst for current proposals to lower the CIT rate in the United States.

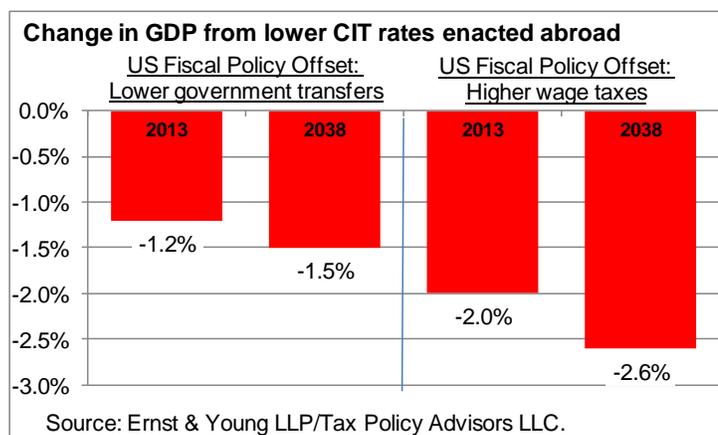
Based on the 19 OECD countries analyzed, the report finds that the US statutory CIT rate is now significantly higher than those of our international competitors:

- The average statutory foreign CIT rate abroad (weighted by gross domestic product (GDP) and including both national and subnational CIT rates) will have fallen from 45.4% to 29.6% – a nearly 35% decline – between 1988 and 2015, when all currently scheduled changes will be fully in effect.
- In 2015, the average foreign statutory CIT rate (weighted by GDP and including both national and subnational CIT rates) of 29.6% will be more than 24% lower than the current 39.0% combined federal and average state statutory CIT rate in the United States. In contrast, in 1988, the average foreign statutory CIT rate was more than 17% higher than the combined 38.6% statutory US CIT rate.

Several channels through which the CIT rate can affect economic performance are considered. First, a decline in foreign statutory CIT rates – assuming that it is not offset by other provisions such as less generous deductions for depreciation – lowers the cost of capital abroad, which encourages investment abroad instead of in the United States. Second, a high US CIT rate relative to those in other countries affects the US CIT base in ways that amplify negative effects of a relatively high CIT rate on investment. Third, the relatively high US CIT rate discourages foreign direct investment (FDI) in the United States. The resulting decline in the US capital stock attributable to these three factors contributes to lower labor productivity and, ultimately, lower living standards than would otherwise occur.

The report estimates that the reductions in the CIT rate enacted abroad over the past several decades are having an adverse effect on the US economy. The estimated impacts are significant in both scenarios considered, which assume two different methods for financing the lower level of US government revenues associated with the reduction in US GDP due to lower tax rates abroad – a reduction in government transfers or higher wage taxes:

- US GDP is estimated to be between 1.2% and 2.0% smaller in 2013, depending on how the lower federal revenues resulting from the estimated decline in US GDP are financed.
- In the long-run, the US economy, as measured by US GDP, would be smaller by between 1.5% and 2.6% if the current differences in CIT rates remain.*



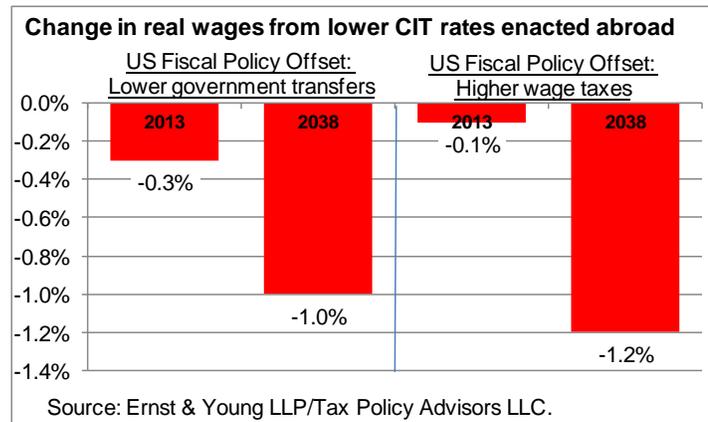
* The long-run estimates are for 2038. Models of this type typically find that about two-thirds to three-quarters of the long-run changes in output are attained within 10 years.

- In today's \$15.7 trillion global economy, this long-run impact on the US economy is equivalent to a reduction in US GDP of roughly \$235 billion to \$345 billion each year.

The report also finds adverse effects on US economic performance under different assumptions regarding the sensitivity of capital outflow to higher taxes, with US GDP falling by at least 1.3% in the long-run under a range of assumptions.

Finally, the report also finds that the high US CIT rate in the face of declining CIT rates abroad has resulted in a decline in US living standards as measured by real wages:

- Depending on the financing assumption, real wages are found to be about 0.1% to 0.3% lower than they would have been otherwise in 2013.
- In the long-run, real wages would be about 1.0% to 1.2% lower than they would have been otherwise.



These estimates suggest that the current high US CIT rate is beginning to have significant adverse economic consequences for the US economy and American workers and suggest that reform of the US CIT that includes a significant reduction in the CIT rate would likely provide important economic benefits to the United States.

Macroeconomic Effects of Lower Corporate Income Tax Rates Recently Enacted Abroad

I. Introduction

The much celebrated Tax Reform Act of 1986 (TRA86) included a dramatic reduction in the federal statutory corporate income tax (CIT) rate, as the top rate declined from 46% to 34%, resulting in a statutory rate in the United States that was relatively low in comparison to the rates of its major trading partners. However, apart from a minor increase in the top CIT rate to 35% in 1993 and the enactment of various temporary stimulus provisions such as bonus depreciation, the CIT in the United States has remained roughly unchanged since TRA86.

In contrast, most other developed countries have been steadily reducing their statutory CIT rates over the past 25 years. Based on the 19 OECD countries analyzed in this report, the average statutory foreign CIT rate abroad (weighted by gross domestic product (GDP) and including both national and subnational CIT rates) will have fallen from 45.4% to 29.6% – a nearly 35% decline – between 1988 and 2015 (when all currently scheduled changes will be fully in effect). Further, by 2015, the average foreign statutory CIT rate (weighted by GDP and including both national and subnational CIT rates) of 29.6% will be more than 24% lower than the current 39.0% combined federal and average state statutory US CIT rate. In contrast, in 1988, the average foreign statutory CIT rate was more than 17% higher than the combined 38.6% statutory US CIT rate.

The reductions in CIT rates abroad were prompted in large part by the inexorable forces of globalization and increasing international tax competition as countries attempt to retain and attract highly mobile capital investments by large US and foreign multinational corporations (Zodrow, 2010). Indeed, the high US statutory CIT rate has sparked concerns about the extent to which the US tax system makes it more difficult for US multinationals to compete successfully in the modern world economy.

This report analyzes the impact of the reductions in CIT rates abroad on the US economy during the 1988 through 2015 period. The analysis takes into account not only the decline in statutory CIT rates abroad, but also other base-broadening changes in other countries' tax systems made to offset the revenue reductions attributable to the lower statutory corporate tax rates.

These trends have been the subject of much recent discussion in both policymaking and academic circles. In particular, they were the focus of a report prepared by the US Treasury (2007) on business tax competitiveness and reform, and have sparked various recent proposals for reforms that would reduce the CIT rate in the United States, including the Administration's *Framework for Business Tax Reform* and the reports of the Simpson-Bowles commission (National Commission of Fiscal Responsibility and Reform, 2010) and the Rivlin-Domenici commission (Bipartisan Policy Center, 2010).¹

This report considers several channels through which the declines in foreign CIT rates can affect US economic performance. First, the decline in foreign statutory CIT rates – assuming

that it is not offset by other provisions such as less generous deductions for depreciation – lowers the cost of capital abroad, which encourages US MNCs to invest abroad instead of in the United States. Second, a high US statutory CIT rate relative to those in other countries affects the US CIT base through the shifting of income and deductions, which amplifies the negative effects of a relatively high CIT rate on investment. Third, the relatively high US CIT rate discourages foreign direct investment (FDI) in the United States. The resulting decline in the US capital stock attributable to these three factors contributes to lower labor productivity and, ultimately, lower living standards than would otherwise occur.

This report discusses the results of simulations of the effects of the reduction in foreign CIT rates over the past several decades on the US economy using a dynamic computable general equilibrium model (the “Tax Policy Advisers Model” or “TPA Model”) that takes into account tax-induced international capital flows as well as the shifting of income and deductions among countries.

The report estimates that the reductions in the CIT rate enacted abroad over the past several decades are having an adverse effect on the US economy. The estimated impacts are significant in both scenarios considered, which assume two different methods for financing the lower level of US government revenues associated with the reduction in US GDP due to lower tax rates abroad – a reduction in government transfers or higher wage taxes. US GDP is estimated to be between 1.2% and 2.0% smaller in 2013, depending on how the lower federal revenues resulting from the estimated decline in US GDP are financed. In the long-run, the US economy, as measured by US GDP, is estimated to be smaller by between 1.5% and 2.6% if the current differences in CIT rates remain.²

The report also finds that the high US CIT rate in the face of declining CIT rates abroad has resulted in a decline in workers’ real wages. Depending on the financing assumption, real wages are estimated to be about 0.1% to 0.3% lower than they would have been otherwise in 2013. In the long-run, real wages are estimated to be about 1.0% to 1.2% lower than they would have been otherwise.

These estimates suggest that the current high US CIT rate is beginning to have significant adverse economic consequences for the US economy and American workers and suggest that reform of the US CIT that includes a significant reduction in the CIT rate would likely provide important economic benefits to the United States.

II. Changes in corporate income tax rates abroad

Both statutory and effective corporate income tax rates around the world have declined significantly since passage of the TRA86 in the United States. This is documented in Figures 1 and 2 below, which portray CIT rates for the United States and the 18 other OECD countries for which consistent data were available over the period from 1988 through 2015.³ The estimates for the “rest of world” reflect GDP-weighted averages of the CIT rates in each country. The 19 countries analyzed currently account for 61% of the world’s GDP.⁴ Several aspects of these trends and the modeling approach used in this report are noteworthy.

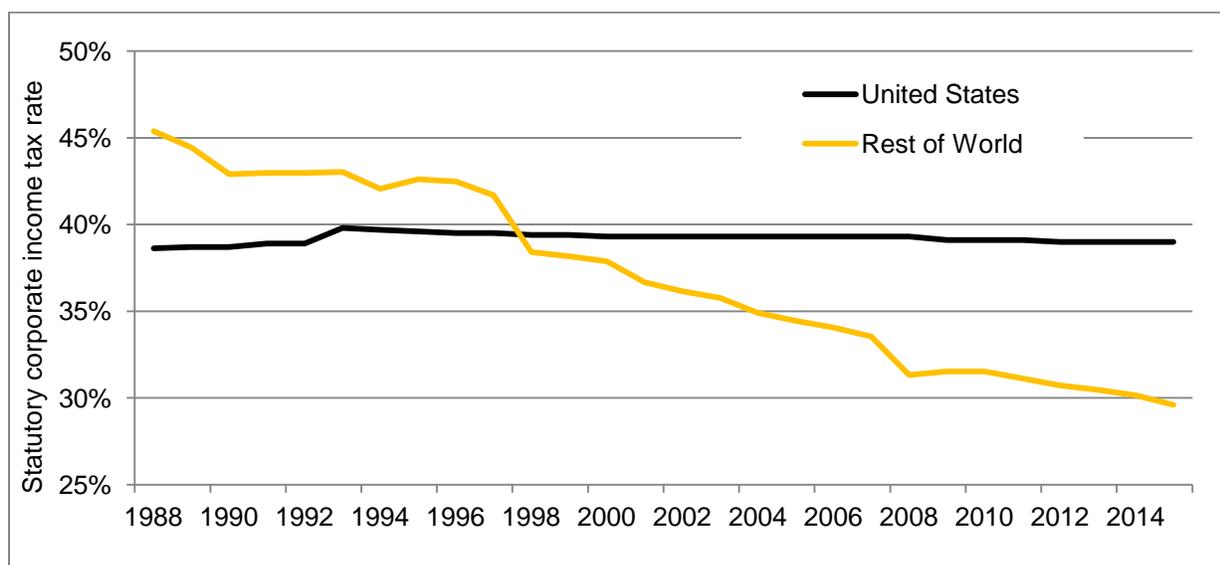
First, prior macroeconomic analyses of potential CIT reforms in the United States have represented the changes in the CIT rate and CIT base through their effect on the marginal effective tax rate (METR).⁵ This measure reflects the tax applied to a hypothetical marginal or “break even” corporate investment, taking into account certain provisions of the tax system, such as the CIT rate, tax depreciation allowances, and investment tax credits, that affect investment incentives.⁶

In contrast, this report uses two different measures of CIT rates to account for changes in CIT systems: 1) the statutory tax rate (STR), including the effects of any sub-national CITs, and 2) the METR, calculated as a weighted average of the METR for debt and equity finance and for investment in equipment, structures, land, and inventories.⁷

Changes in statutory CIT tax rates have an effect on marginal investment decisions as reflected through their impact on the METR, an effect captured in the prior analyses noted above, but can also have effects on the location of certain investments, such as foreign direct investment, as well as on the location of income and deductions. By separately modeling marginal investment and other decisions, this report is able to more fully account for the effects of CIT changes on the US economy. More generally, accounting for changes in the METR also has the advantage of capturing some of the choices, such as reducing deductions for depreciation, that other countries have made in deciding how to offset the revenue losses due to reductions in statutory CIT rates.

As shown in Figure 1, the combined federal-state US statutory CIT rate has remained largely unchanged since the TRA86, aside from the 1% increase in the federal statutory CIT rate enacted in 1993. The GDP-weighted average statutory CIT rates for the other 18 OECD countries analyzed abroad has declined from 45.4% in 1988 to 30.7% in 2012. Already-scheduled changes in the CIT rate for several countries will further reduce the average CIT statutory tax rate to 29.6% by 2015, as compared to the current 39% combined federal-state CIT rate in the United States. For example, Great Britain is scheduled to reduce its CIT rate to 21% by 2014. Similarly, Japan recently reduced its primary federal CIT rate from 30% to 25.5%, while enacting a temporary 10% surcharge related to the 2011 earthquake and tsunami. Between 2014 and 2015, the combined CIT rate in Japan will fall from 38% to 35.6% when the temporary surcharge expires. With these recent scheduled changes, the statutory CIT rate for the 18 countries analyzed will have fallen by nearly 35% between 1988 and 2015.

Figure 1. Statutory CIT rates in the United States and the “Rest of World,” 1988-2015



Notes: The average statutory CIT rate for the “rest of world” is weighted by the GDP of the 18 included countries: Australia, Austria, Belgium, Canada, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom. The tax rates include both national and subnational CIT rates.

Source: Organisation for Economic Co-operation and Development; Bilicka and Devereux (2012); and Ernst & Young LLP.

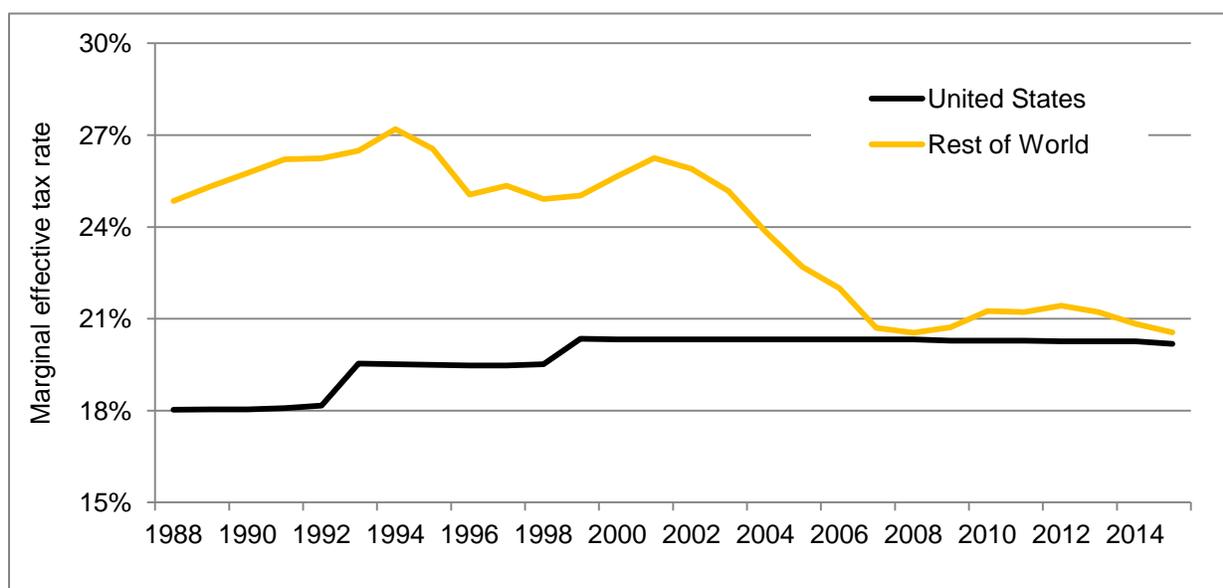
Figure 1 indicates that in 1988, the first year the TRA86 was fully phased in and the year the analysis embodied in this report begins, the US combined statutory rate was 38.6%, 6.8 percentage points lower than the GDP-weighted average statutory rate of 45.4% for the other 18 OECD countries. However, by 2015, the US statutory tax rate of 39.0% will be 9.4 percentage points higher than the projected 18-country average rate of 29.6%, reflecting a swing of more than 16 percentage points in relative statutory CIT rates.

Second, at the same time statutory CIT rates have fallen abroad, many countries have also broadened their CIT bases or increased reliance on value-added taxes (VATs). The decline in the present value of depreciation allowances, especially for new investment in buildings, for example, was recently documented by Bilicka and Devereux (2012). The METR concept used in this report captures these changes in the CIT base, as well as certain other features of the CIT.⁸ By capturing the effects of both changes in the CIT rate and other elements of CIT systems, the METR captures the tradeoffs that countries have made in financing the reductions in their CIT rates.⁹

Third, as shown by the trend for corporate METRs shown in Figure 2, even though the United States now has a METR that is similar to the other countries analyzed, the average METR abroad has fallen over this period. This relative decline in the foreign METR is an important determinant of the level of investment, in addition to other factors, such as relative wages, educational levels, and the regulatory environment that also determine the competitiveness of a country’s economy. In contrast, because the TRA86 was, in general, a base-broadening, rate-reducing reform, it left the corporate METR in the United States largely unchanged at 18.0%.

However, in relative terms, the corporate METR in the United States in 1988 was 6.9 percentage points below the 18-country GDP-weighted average corporate METR of 24.9%. By comparison, by 2015 the METR in the United States will be 20.2%, while the GDP-weighted average corporate METR among the 18 other OECD countries analyzed will have declined to 20.6%.

Figure 2. Marginal effective tax rate for new corporate investment in the United States and “Rest of World”, 1988-2015



Notes: The METR for the “rest of world” is weighted by the GDP for each of the 18 included countries for which consistent data are available over this period: Australia, Austria, Belgium, Canada, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom. The tax rates include both national and subnational CIT rates.

Source: Institute for Fiscal Studies; and calculations by Ernst & Young LLP/Tax Policy Advisers LLC.

The CIT rates this report uses to simulate the effects of the lower CIT rates enacted abroad focus on the 19 countries (including the United States) for which consistent data are available over the period from 1988 through 2015. A comparison of broader sets of countries to the United States in 2012 indicates a similar gap in CIT rates, with a GDP-weighted average statutory CIT rate of 30.0% for all of the OECD countries (excluding the United States) and 28.6% for the top 50 economies (excluding the United States). In addition, the CIT statutory tax rate gap in 2012 is larger if the foreign rate is calculated on an unweighted basis, with a 25.0% average CIT rate for the OECD (excluding the United States) and 25.4% average CIT rate for the top 50 economies (excluding the United States).

A recent study comparing METRs that includes all OECD countries and also includes the effects of other taxes on the METR, such as investor-level taxes, property taxes, and VATs assessed on intermediate inputs, suggests a larger gap than the METR estimates used in this report. Chen and Mintz (2012) report a METR for the United States of 35.6%, but a GDP-weighted average of 24.6% for the OECD (excluding the United States) and simple average of 19.0% for the OECD (excluding the United States).

Note that the CIT rates shown above do not include any additional US tax paid by US-MNC domestic parents upon repatriation of earnings from their foreign subsidiaries.

In addition, the analysis makes no attempt to capture two other factors that tend to increase tax incentives for investing abroad rather than in the United States. First, the analysis does not address the potential impact of the general movement of other developed nations toward territorial tax systems during this period. Second, it does not consider individual level taxation, especially the extent to which more complete integration of the business and individual level taxes in some foreign countries results in a lower combined business and individual level tax burden (although relatively high foreign individual level taxes on dividends and capital gains would act in the opposite direction).

III. Tax sensitivity of foreign direct investment (FDI)

The high US CIT rate relative to other developed nations can be expected to have an adverse effect on US economic performance. The recent reduction in foreign CIT rates increases the relative attractiveness of investing abroad, all else equal, causing an outflow of capital from the United States that reduces the productive capacity of the US economy. The globalization of the modern economy plays an important role in these effects. Increasing globalization makes it easier for businesses and investors to reallocate or move their capital across borders in response to differences in countries' tax policies, which amplifies the detrimental effects of the high US CIT rate relative to other developed nations.

A recent OECD study (Johansson et al., 2008) concludes that, of all the different types of taxes, CITs are the most harmful to economic growth, due primarily to their effect on the rate of capital accumulation. The study notes that the adverse effects of the CIT increase with the openness of the economy.

Foreign direct investment (FDI) is an important channel through which such capital flows can be affected. The CIT can have a large impact on where multinational companies choose to locate their production facilities, as well as on the size of those investments.¹⁰ Additional investment is important because it can spur additional local employment, increase productivity – which has positive spillovers to other segments of the local economy – and provide other benefits commonly associated with FDI. FDI in the United States has been estimated to support 5 million US jobs in 2010.¹¹

A large body of research has attempted to quantify the impact of the CIT on FDI.¹² The consensus of this research is that FDI is sensitive to tax factors. For example, in a review of the empirical research on this issue, Gordon and Hines (2002) conclude that the “econometric work of the last fifteen years provides ample evidence of the sensitivity of the level and location of FDI to its tax treatment.” Moreover, this sensitivity is increasing over time. For example, Altshuler, Grubert and Newlon (2001) estimate that the responsiveness of investment to the after-tax host country rates of return for US multinationals nearly doubled between 1984 and 1992, and Altshuler and Grubert (2006) report evidence of further increases during the 1990s.

One recent survey of this research (de Mooij and Ederveen, 2008) concluded that: (1) decisions regarding both the location and the level of investment are sensitive to tax factors, (2) investment in tangible property, such as plant and equipment, is more tax sensitive than aggregate FDI, which includes mergers and acquisitions, and (3) the tax responsiveness of FDI seems to be increasing over time. Another study stresses that location decisions involving investments that earn above-normal returns in theory should be much more affected by average effective tax rates (AETRs) (and thus largely by statutory tax rates (STRs) for investments that earn significant above-normal returns or economic rents) than by METRs (Devereux and Lockwood, 2006).¹³

This research suggests that the reductions in CIT rates abroad likely helped increase FDI in other countries and that these effects are increasing over time. Moreover, more recent research

suggests that AETRs and thus statutory CIT rates, rather than METRs (which are also influenced by the breadth of the CIT base), are the more relevant policy tool affecting FDI, primarily because statutory rates are more important in determining the tax burden on highly mobile investments that earn firm-specific economic rents (de Mooij and Ederveen, 2008, and Devereux and Lockwood, 2006). Statutory tax rates are also the most relevant tax rate in determining the extent of tax incentives for the shifting of income and deductions among countries with different CIT rates.

IV. Overview of macroeconomic model and simulation approach

This report estimates the macroeconomic effects on the US economy of the reduction in foreign CIT rates observed since the US CIT rate cuts enacted in the TRA86 were fully phased in, within the context of the TPA simulation model of the US economy, assuming that all else is constant. The analysis is suggestive of the impact on the US economy of foreign CIT rate reductions occurring from 1988 through 2015, subject to the caveats noted below. A description of the basic TPA Model can be found in Diamond, Zodrow, Neubig and Carroll (2011), Diamond and Zodrow (2007, 2008), and Zodrow and Diamond (forthcoming). Several extensions related primarily to foreign capital flows are described briefly below.

The analysis is admittedly highly stylized in that it focuses entirely on the effects of foreign CIT rate cuts within the context of the TPA Model, with no attempt to account for all of the non-tax changes that occurred over the 1988 through 2015 time period. These factors include reductions in transportation costs, the information/communication revolution, the increasing importance of digital products, the loosening of international capital controls, the relative growth of non-developed economies, and reductions in worldwide trade barriers, all of which contributed to increased globalization of the world economy and affected the investment patterns of US and foreign multinationals. In addition, the use of corporate level statutory and marginal effective tax rates in the United States and the other 18 OECD countries analyzed to capture the tax incentives determining international capital flows is of course subject to the caveats noted above.

Simulating changes in foreign CIT rates

This report examines the effects of a gradual but significant decline in average statutory and marginal CIT rates around the world over an extended time period, coupled with the absence of changes in the CIT in the United States over the same time period. The analysis begins in 1988 when the CIT rate reductions enacted in the TRA86 were fully phased in, and then considers the CIT changes made abroad over roughly the next 30 years. The analysis accounts for several recently enacted foreign CIT rate reductions scheduled to occur by 2015, including those in the United Kingdom and in Japan. The tax structure after 2015 is assumed to remain in place permanently.

Modeling the effects of tax changes over nearly a thirty-year period is quite complex and involves various assumptions. This analysis proceeds in two steps. First, an initial equilibrium is established. The TPA Model is a standard dynamic general equilibrium model. In such a model, the economy must begin in a long-run equilibrium in which all components of the economy (e.g., output, capital stocks, labor supply, consumption) grow at a constant exogenously specified growth rate. To construct this initial equilibrium, 1988 data are used and the economy is assumed to be fully adjusted to the reforms enacted in the TRA86.¹⁴ The model is further calibrated so that when the observed changes in foreign CITs are introduced, the model replicates the US economy in 2007.¹⁵

Second, the patterns of changes in STRs and METRs for the United States and the “rest-of-world” are imposed. This effectively yields tax law changes that can be simulated, with firms and consumers in the model responding to the changes in foreign tax structures. The macroeconomic effects of the lower CIT rates enacted abroad are estimated by comparing the results under these two scenarios – with and without the observed foreign CIT rate changes – within the context of the stylized representation of the US economy reflected in the TPA Model. The difference between these two scenarios provides an estimate of the cost to the United States of holding its CIT rate constant in the face of steady declines in both corporate STRs and corporate METRs abroad, under the assumption that everything else is held constant over the relevant time period.

Offsetting the decline in government revenue in the United States from capital outflows

In the TPA Model, any change in policy must leave the US federal government on a fiscally sustainable path; for example, an analysis of a reduction in CIT rates in the United States would require an offsetting fiscal policy change that would raise enough revenues to maintain fiscal balance. In the context of the policy changes analyzed by this report – a reduction in foreign CIT rates – an offsetting fiscal policy change is required because the resulting capital outflows and the associated lower level of GDP in the United States reduce US federal government revenues, and this revenue shortfall must be offset in some way.

While many financing assumptions could be made, this report simulates the effects for two alternative ways of offsetting the lost revenue associated with capital outflows and lower levels of GDP in the United States due to reductions in foreign CIT rates: 1) a reduction in government transfers,¹⁶ and 2) an increase in wage taxes. In actuality, the lost revenue due to capital outflows from the United States was most likely, and can be expected to continue, to be offset by a combination of policy changes that would include both tax increases and spending reductions. Thus, the two financing assumptions used will largely bound possible results, although a prolonged period of deficit-financing or tax increases that included capital income taxes would likely have larger adverse effects.

Changes in the location of activities, income and deductions to take advantage of tax differentials will also play a role in the size of the policy needed to offset the effects of the capital outflow. A relatively high CIT rate has been found to reduce the size of a country’s tax base, implying that a larger offsetting fiscal policy would be needed to maintain fiscal neutrality and offset a potentially larger estimated negative impact on US economic performance.¹⁷ On the other hand, however, the ability to reduce CIT liability by changing the location of income and deductions can mitigate the negative effects of relatively high statutory tax rates, and thus reduce their negative effects on the location of real investment.

Extensions to the basic TPA Model

Although the basic TPA Model assumes that the United States is a closed economy characterized by perfect competition in all markets, this model is extended to reflect important elements of the current global economy. The TPA Model is extended to incorporate a foreign

sector and international flows of capital, intermediate goods¹⁸, and international trade in consumption goods. Both firm-specific capital¹⁹ that earns above-normal returns and “ordinary” capital that earns normal returns are included. The reallocation of firms’ income and deductions are also modeled.²⁰

With these modifications, the TPA Model includes both a single foreign “rest-of-world” sector and two types of multinational companies (MNCs): 1) a US-based MNC (US-MNC) consisting of a parent firm that invests in the United States and a foreign subsidiary that invests abroad, and 2) a foreign-based multinational (rest-of-world-MNC) that consists of a parent firm that invests in the rest-of-world and its subsidiary that invests in the United States.

To simplify the analysis, the rest-of-world is modeled as consisting entirely of the MNC sector (both US-MNC subsidiaries and rest-of-world-MNC parents). Thus, it is assumed that the remainder of the rest-of-world (i.e., foreign domestic-only firms) is unaffected by the CIT reforms analyzed. In addition, following Becker and Fuest (2005) and some other recent literature, two types of capital are included to account for differentially high international capital mobility of some forms of capital – in particular, to take into account firm-specific capital that earns economic rents and is relatively highly mobile across countries. Specifically, the model includes firm-specific capital that earns economic rents, is owned exclusively by the two MNCs, and is highly mobile across the United States and the rest-of-world, and a less internationally mobile capital that earns normal returns and is used by all firms. Both US and foreign-based MNCs also trade intermediate goods between their affiliates and can reallocate income and deductions between their affiliates, and the model includes trade between the United States and the rest-of-world in the consumer goods produced by the MNC sectors in each country.

V. Simulation results

In this section, results are reported for several simulations of the macroeconomic effects of the reductions in foreign CIT rates documented above. Both short-run and long-run effects on GDP are presented, with foreign CIT rate reduction-induced changes in other macroeconomic variables presented as well. The report also provides estimates of the sensitivity of the results to the method of offsetting foreign CIT rate reduction-induced US revenue losses and to key assumptions regarding the responsiveness of international capital flows to differentials in tax rates.

Benchmark results

Table 1 shows the benchmark simulation results. The effects on the US economy of the steady decline in foreign CIT rates since the provisions of the TRA86 were fully implemented in 1988 are negative and significant. For example, when the offsetting fiscal policy is a reduction in government transfers, GDP decreases by 0.3% 10 years after 1988, by 1.2% after 25 years (i.e., 2013), and by 1.5% in the long-run (i.e., 2038 or 50 years after 1988).²¹

The reduction in GDP is primarily attributable to the shifting of capital abroad in response to the reductions in the rest-of-world CIT rates – from 45.4% to 29.6% for the GDP-weighted average statutory CIT rate and from 24.9% to 20.6% for the corporate METR – while US CIT rates remained roughly constant at their 1988 levels of a statutory tax rate of approximately 39% and a corporate METR of approximately 18% to 20%. For example, focusing on the results where a reduction in government transfers is the offsetting fiscal policy, the US-MNC reduces the amount of firm-specific capital allocated to the United States by 1.2% 10 years after 1988, and by 3.8% in the long run. These changes correspond to increases in the US-MNC foreign stocks of firm-specific capital of 2.7% 10 years after 1988 and 8.3% in the long run. The shifting of firm-specific capital by the rest-of-world-MNC reinforces these reallocations.

In addition, the stock of capital that earns normal returns decreases in the United States (as capital is shifted out of the United States and as investment declines) by 0.2% in 2013 (i.e., 25 years after 1988), and by 1.1% in the long run. These changes are accompanied by declines in consumption of 1.7% in 2013 (i.e., 25 years after 1988) and by 2.3% in the long run. Finally, although living standards, as measured by a decline in real wages, decrease due to the smaller US capital stock (by 1.0% in the long run), total labor market hours increase by 0.8% in 2013 (i.e., 25 years after 1988), and by 0.9% in the long-run.

The change in hours worked in the TPA Model is driven primarily by changes in disposable incomes and in the after-tax reward from work. When the reduction in government revenues is offset by a decrease in government transfers, disposable incomes fall, but the after-tax reward from work is unchanged. This has the effect of causing households to work more hours to, in effect, make up for the reduction in disposable incomes.

Table 1. Economic impact on the US economy of foreign reductions in corporate income tax rates under alternative financing assumptions, benchmark case

(% change in each variable)

Year (years since 1988)	Benchmark Case Reduction in government transfers				Benchmark Case Increase in wage taxes			
	1993 (5)	1999 (10)	2013 (25)	2038 (50)	1993 (5)	1999 (10)	2013 (25)	2038 (50)
GDP	-0.1	-0.3	-1.2	-1.5	-0.2	-0.5	-2.0	-2.6
US-MNC firm-specific capital in United States	-0.4	-1.2	-3.4	-3.8	-0.4	-1.3	-3.6	-4.2
RW-MNC firm-specific capital in United States	-2.2	-4.6	-9.4	-10.4	-2.2	-4.6	-9.8	-11.1
US-MNC firm-specific capital in rest-of-world	0.9	2.7	7.4	8.3	0.9	2.7	7.7	9.0
RW-MNC firm-specific capital in rest-of-world	0.5	1.1	2.4	2.6	0.5	1.2	2.4	2.8
Total “ordinary” US capital stock	0.0	0.1	-0.2	-1.1	0.0	0.1	-0.5	-2.4
US investment	0.9	1.1	0.4	-0.1	0.8	0.9	-0.7	-1.6
US consumption	-0.3	-0.6	-1.7	-2.3	-0.4	-0.7	-2.3	-3.3
US labor market hours	0.2	0.3	0.8	0.9	0.1	0.2	0.0	-0.1
US real wages	0.1	0.1	-0.3	-1.0	0.1	0.1	-0.1	-1.2

Note: Estimates reflect the percentage changes in each variable relative to the values that would occur in the absence of the reductions in CIT rates abroad.

The effects of the foreign CIT rate reductions are somewhat more negative when a wage tax increase is the offsetting fiscal policy, since higher wage taxes themselves have a negative effect on hours worked, which translates into less investment and GDP growth in the long run. For example, GDP declines by 2.6% (rather than 1.5%) in the long run, investment in ordinary capital falls by 2.4% (instead of 1.1%), and consumption falls by 3.3% (rather than 2.3%).

For the simulation in which the reduction in government revenues is offset by an increase in wage taxes, the change in total labor market hours is driven by both the lower disposable incomes and the reduction in the after-tax reward from work. These two changes have opposing effects on hours worked and, in this simulation, are roughly offsetting, leaving total hours worked in the labor market unchanged. Nevertheless, real wages fall under either fiscal policy offset, reflecting the decline in labor productivity due to the capital outflow from the United States in response to the lower CIT tax rates enacted abroad.

Sensitivity of results to alternative assumptions

This report also considers the robustness of the results in the context of changes in the values of some of the key parameters in the model, specifically those that determine the extent of international capital flows. For example, in Table 2, the effects of increasing the costs of adjusting both multinationals' stocks of firm-specific capital are examined; higher adjustment costs have the effect of reducing the reduction in firm-specific capital in the United States attributable to lower taxes abroad.

When the offsetting fiscal policy is a reduction in government transfers, the reduction in the declines in firm-specific capital in the United States are on the order of about one-third, and the decline in GDP is reduced by about 15%, from a decline of 1.5% to 1.3% in the long run. When the offsetting fiscal policy is an increase in wage taxes, the reductions in the declines in firm-specific capital in the United States are also roughly about one-third, but the declines in total labor market hours worked and in investment in capital that earns normal returns are nearly unchanged, so that the decline in GDP falls by only 10% from 2.6% to 2.4% in the long-run.

In Table 3, the effects of increasing the assumed responsiveness of the supply of ordinary capital to taxes are examined under the two alternative financing assumptions. These effects are fairly modest. In the benchmark case shown in Table 1, the stock of capital that earns normal returns declines by 1.1% (government transfer offset) or 2.4% (wage tax offset) in the long run. With the higher capital elasticity, as shown in Table 3, the stock of capital that earns normal returns falls by 1.6% (government transfer offset) or by 2.7% (wage tax offset). However, the declines in firm-specific capital are somewhat smaller under either financing assumption, resulting in no net change (government transfer offset) or only a modest change (wage tax offset) in the decline in GDP.

Table 2. Economic impact on the US economy of foreign reductions in corporate income tax rates under alternative financing assumptions, higher adjustment costs

(% change in each variable)

Year (years since 1988)	Higher firm-specific capital adjustment costs Reduction in government transfers				Higher firm-specific capital adjustment costs Increase in wage taxes			
	1993 (5)	1999 (10)	2013 (25)	2038 (50)	1993 (5)	1999 (10)	2013 (25)	2038 (50)
	GDP	-0.1	-0.3	-1.0	-1.3	-0.2	-0.4	-1.8
US-MNC firm-specific capital in United States	-0.3	-0.9	-2.4	-2.6	-0.3	-0.9	-2.4	-2.8
RW-MNC firm-specific capital in United States	-1.3	-2.9	-6.2	-6.8	-1.3	-2.9	-6.4	-7.3
US-MNC firm-specific capital in rest-of-world	0.7	1.9	5.1	5.8	0.7	2.0	5.4	6.2
RW-MNC firm-specific capital in rest-of-world	0.3	0.7	1.5	1.7	0.3	0.7	1.6	1.8
Total “ordinary” US capital stock	0.0	0.1	-0.1	-1.1	0.0	0.1	-0.5	-2.3
US investment	0.9	1.1	0.4	-0.1	0.8	0.9	-0.7	-1.6
US consumption	-0.3	-0.5	-1.6	-2.1	-0.3	-0.6	-2.1	-3.1
US labor market hours	0.2	0.3	0.8	0.9	0.1	0.2	0.0	-0.2
US real wages	0.1	0.1	-0.2	-0.9	0.1	0.2	0.0	-1.0

Note: Estimates reflect the percentage changes in each variable relative to the values that would occur in the absence of the reductions in CIT rates abroad.

Table 3. Economic impact on the US economy of foreign reductions in corporate income tax rates under higher capital supply elasticity under alternative financing assumptions

(% change in each variable)

Year (years since 1988)	Higher capital supply elasticity (1.0) Reduction in government transfers				Higher capital supply elasticity (1.0) Increase in wage taxes			
	1993 (5)	1999 (10)	2013 (25)	2038 (50)	1993 (5)	1999 (10)	2013 (25)	2038 (50)
GDP	-0.1	-0.3	-1.3	-1.5	-0.2	-0.5	-2.0	-2.7
US-MNC firm-specific capital in United States	-0.3	-1.1	-3.1	-3.5	-0.3	-1.1	-3.2	-3.9
RW-MNC firm-specific capital in United States	-1.9	-4.2	-8.7	-9.7	-1.9	-4.3	-9.1	-10.5
US-MNC firm-specific capital in rest-of-world	0.6	2.4	6.7	7.6	0.6	2.4	7.0	8.4
RW-MNC firm-specific capital in rest-of-world	0.5	1.1	2.2	2.4	0.5	1.1	2.3	2.6
Total “ordinary” US capital stock	-0.1	0.0	-0.6	-1.6	-0.2	-0.1	-0.9	-2.7
US investment	1.0	1.2	0.4	-0.1	0.9	1.0	-0.7	-1.7
US consumption	-0.4	-0.6	-1.8	-2.4	-0.4	-0.7	-2.3	-3.4
US labor market hours	0.2	0.3	0.8	0.9	0.2	0.2	0.0	-0.1
US real wages	0.1	0.1	-0.3	-1.1	0.1	0.1	-0.1	-1.2

Note: Estimates reflect the percentage changes in each variable relative to the values that would occur in the absence of the reductions in CIT rates abroad. The capital supply elasticity was 0.5 for the benchmark case (i.e., Table 1).

Limitations of the analysis

While the impacts estimated by this report are suggestive of the adverse effects of lower CIT rates enacted abroad on US economic performance, there are many limitations of the analysis that should be noted. There are of course various standard concerns about any computable general equilibrium modeling analysis, including the validity of the structural assumptions of the model, the choices of functional forms and parameter values, the compromises that must be made in imposing steady-state equilibrium conditions on the model, and the difficulties of modeling complex tax systems in model-equivalent forms.²²

The application of the model in this analysis is especially difficult, as the tax law changes being analyzed represent gradual changes in foreign CIT rates over an extended time period, imposed initially in a steady-state equilibrium that occurred nearly 30 years ago (rather than the more easily modeled case of a one-time reform enacted in the current equilibrium).²³ Moreover, as noted above, the results should be interpreted as simply reflecting the estimated effects on the US economy of imposing the reductions in foreign CIT rates within the context of the model, holding all else constant – that is, ignoring all of the other factors that might have affected investment in the United States and the world economies over the intervening period as well as the other features of the US and foreign tax systems that are not modeled explicitly.

Also, while the analysis reflects some of the base broadening included in other countries' reforms, principally reductions in the tax benefits provided through generous depreciation allowances, the report does not take into account the potential effects of other base-broadening changes or in the taxation of foreign-source income. For example, other countries have made other changes to their tax systems, such as shifting towards greater reliance on VATs and generally moving towards territorial tax systems during the period analyzed by this report.

Nevertheless, the model reflects a rich if necessarily incomplete representation of the US economy and tax system that is consistent with, and to some extent improves on, many other similar models that have appeared in the economic literature. Accordingly, the estimated effects obtained from the various simulations described in this report are suggestive of the costs to the US economy imposed by holding US CIT rates constant in the face of steady declines in CIT rates around the world.

VI. Summary

Over the past several decades, most developed countries have steadily reduced their CIT rates, while the US CIT rate has remained largely unchanged. These reductions were largely prompted by the forces of globalization and increasing international tax competition, as countries pursued highly mobile capital investments made by large multinational corporations. A comparison of METRs shows a similar trend, dampened somewhat by the base broadening that has often accompanied CIT rate reduction in many other countries.

After the sharp reduction in the CIT rate enacted in the TRA86 (from 48% to 34%), the US statutory CIT rate has remained largely unchanged, with the exception of a small increase to 35% in 1993, despite the significant rate reductions that have been enacted abroad. These trends in CIT rates in the United States and abroad have left the United States with the highest statutory rate among the major economies, and without a relative advantage in marginal effective tax rates. These high US CIT rates have raised concerns about whether the US CIT makes it more difficult for US multinationals to compete in the global economy, especially since empirical research has generally found that FDI is sensitive to differentials in tax rates across countries, and that this sensitivity may be increasing over time.

This report examines the macroeconomic effects on the US economy of the rate reductions enacted abroad since 1988 using the Tax Policy Advisers model, a dynamic macroeconomic model of the US economy. The reduction in CIT rates abroad, even when taking into account the associated base broadening, is found to have significant adverse effects on the US economy. This report considers the trends in CIT rates not only on marginal investment decisions, but also through other avenues such as the location of investment, income, and deductions.

In the benchmark simulations, GDP is estimated to be lower by between 1.2% and 2.0% by 2013 than it would be otherwise, depending on the how the associated reduction in government revenues is financed. The effects on GDP are larger in the long run, with an estimated 1.5% to 2.6% reduction in GDP or a reduction in GDP of roughly between \$235 billion and \$345 billion in today's \$15.7 trillion economy, depending on the offsetting change in fiscal policy. Living standards, as measured by changes in workers' real wages, are also lower than they would be otherwise, falling in the long run by between 1.0% and 1.2%, again depending on which offsetting change in fiscal policy is simulated.

The estimates presented in this report suggest that the high CIT rate in the United States is beginning to have significant adverse economic consequences. These results suggest that reform of the US tax system that includes a reduction in the CIT rate is likely to have a significant positive effect on US economic performance.

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¹ For a description of the Administration's Framework for Business Tax Reform, see: <http://www.treasury.gov/resource-center/tax-policy/Documents/The-Presidents-Framework-for-Business-Tax-Reform-02-22-2012.pdf>.

² The long-run estimates are for 2038. Models of this type typically find that about two-thirds to three-quarters of the long-run changes in output are attained within 10 years.

³ These data on CIT rates draw on and update a comprehensive data set on CIT rates in 19 OECD countries maintained by the Institute for Fiscal Studies (IFS); see the time series of tax rates provided in "Corporate Tax Rate Data," prepared by Alexander Klemm, available at <http://www.ifs.org.uk/publications/3210>. These data were updated and projected to 2015 based on information available on recent tax changes that have been enacted but not yet fully implemented.

⁴ International Monetary Fund, *World Economic Outlook Database*, April 2012. <http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/weoselco.aspx?q=2001&sq=All+countries>.

⁵ For example, see US Department of the Treasury (2007) and Bull, Dowd and Moomau (2011).

⁶ The METR is a measure of the additional economic profit needed for a barely profitable hypothetical investment to cover taxes over its life. It is calculated as the difference between the before- and after-tax return for such an investment divided by its pre-tax return. The METR calculations for both the US and the rest-of-the-world do not include tax incentives that are not generally applicable, such as R&D tax incentives or the US domestic production deduction, and do not consider individual level taxation. In addition, the calculations assume that the taxes due on the hypothetical investment are paid; that is, the analysis does not consider tax evasion or tax avoidance (other than the shifting of income and deductions between the United States and the 18 other OECD countries analyzed), such as the shifting of income to very low-tax rate countries.

⁷ A third measure used by the IFS is the average effective tax rate (AETR), calculated as a weighted average of the statutory and marginal effective tax rates using the approach developed by Devereux and Griffith (2003), where the weights in the AETR calculations depend on the ratio of above-normal returns to normal returns; however, this report did not have all of the data needed to update the IFS AETR calculations. Given that recent estimates of the ratio of above-normal to normal returns is fairly high (approximately 2.6, according to a recent US Treasury report (Cronin, Lim, Power and Cooper, 2012)), AETRs are roughly approximated by STRs. (As the level of above-normal returns increases, the AETR approaches the STR.)

⁸ As noted above, the METRs calculated for this report are based on IFS data computed by Klemm for 1982 through 2005. These estimates are then extended using the trend for METRs calculated based on statutory CIT rates and depreciation allowances from Oxford University's Centre for Business Taxation. Separate METRs are constructed for investment in equipment, structures, land and inventories with constant weights across asset types and sources of finance so that differences in estimated METRs across countries only reflect differences in their tax systems.

⁹ Some countries have also increased their VAT rates or increased investor-level taxes on dividends and capital gains. Because the VAT, a form of consumption tax, generally does not impose tax on the return to just profitable marginal investments, they have no effect on the METR. Higher foreign individual level taxes on dividends and capital gains, which are not incorporated in this report, would dampen the decline in METRs and the estimated macroeconomic effects somewhat, while the corporate-individual integration schemes used in some of the OECD countries analyzed would have the opposite effect. For a discussion of recent changes in dividends and capital gains tax rates, see Carroll and Prante (2012).

¹⁰ For example, see Devereux and Lockwood (2006).

¹¹ US Department of Commerce, "Foreign Direct Investment in the United States," *Economics and Statistics Administration Issue Brief #02-11*, June 2011.

¹² See de Mooij and Ederveen (2003, 2005). Specific examples of studies include Altshuler and Grubert (2004) and Altshuler, Grubert and Newlon (2001).

¹³ Economic rent refers to investment returns over and above the returns an individual or firm could normally expect to receive in a competitive marketplace. Such rents might, for example, result from technological innovation, market power, unique managerial skills or production processes, or risk-taking and would generally accrue to the investors or owners of a firm.

¹⁴ Note that this assumption implies that the negative effects on the US economy of the subsequent cuts in foreign CIT rates will be understated to some extent, since these effects will be dampened temporarily as the US economy adjusts to the tax cuts enacted in the Tax Reform Act of 1986.

¹⁵ Note that 2007 is used as the benchmark year because it is more likely to approximate a long-run equilibrium than the more recent "great recession" years, which have been characterized by relatively low levels of investment, especially in housing, and relatively high government deficits.

¹⁶ A government transfer program is a program that primarily transfers or reallocates resources from one group to another. From an economic perspective, such a program affects household income but not the after-tax reward to work or saving.

¹⁷ For example, see Grubert (1998, 2001, 2003, 2012), Clausing (2003, 2009) and Bartelsman and Beetsma (2003).

¹⁸ An intermediate good is a good that is used to produce a final good.

¹⁹ Firm-specific capital is capital that is unique to a firm. It could include, for example, a firm-specific technology, brand or innovation.

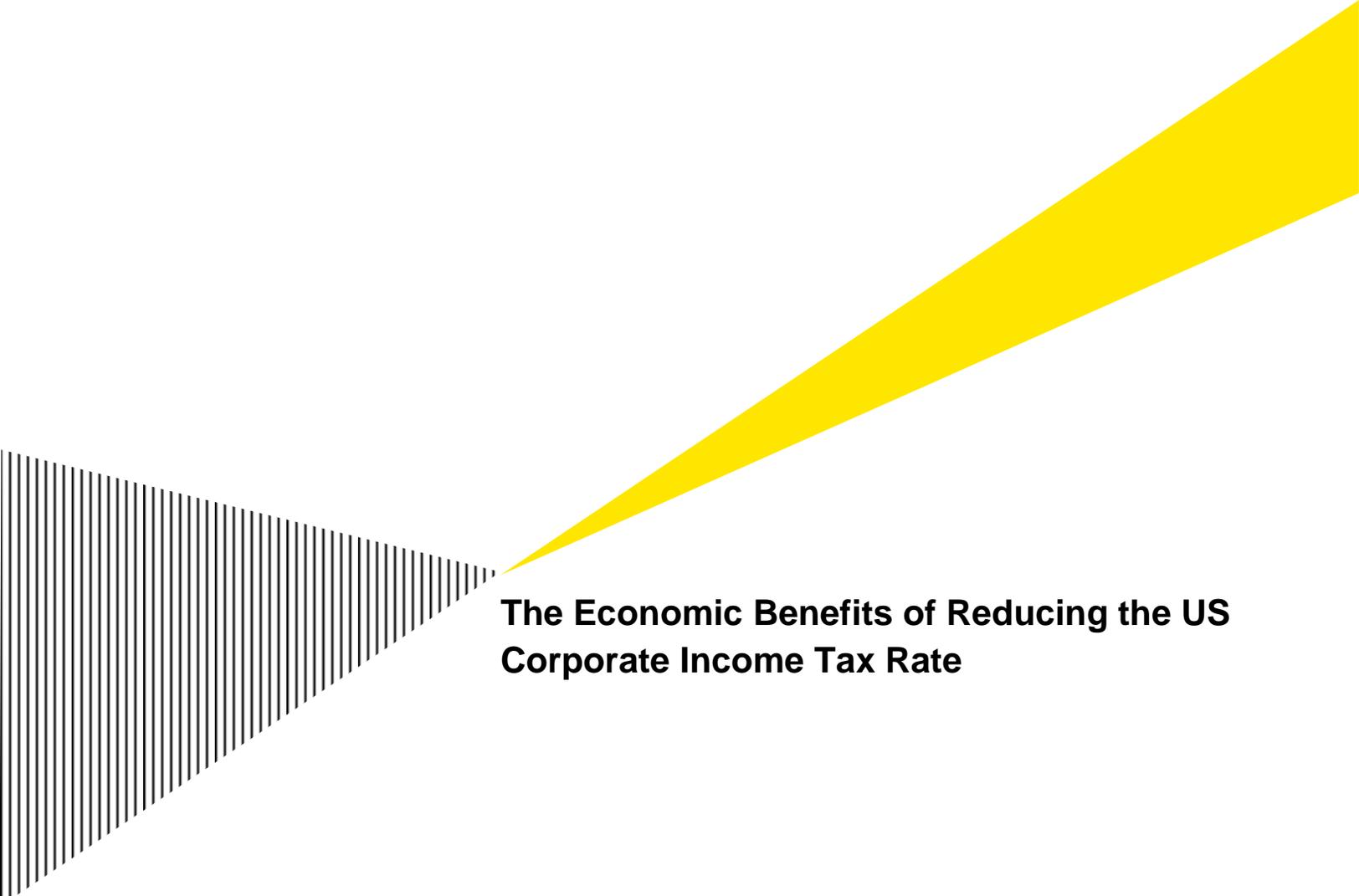
²⁰ The reallocation of income and deductions in response to the high US CIT rate may dampen the disincentive effects of the relatively high CIT rates in the United States. Such reallocation is explicitly taken into account in the model used for this report. See, for example, Diamond, Zodrow, Neubig and Carroll (2011).

²¹ In the context of the TPA Model, the long run refers to the point in time when the economy is very nearly fully adjusted to the reductions in CIT rates abroad and resumes growing at a constant rate. For the policy change modeled in this report, this occurs within 50 years of the initial change in rates (i.e., 2038). It is important to note that foreign tax rates

continue to change between 1988 through 2015 and the long run can, in effect, be viewed here relative to the first year in which changes in foreign tax rates are considered (i.e., 1988).

²² For example, some structural elements of the model that might be viewed as problematical include the assumptions of far-sighted profit-maximizing firms and far-sighted utility-maximizing consumers, and the specific modeling of perfect and imperfect competition in the various product and factor markets.

²³ During this time period there was also an increase in the share of business income that is taxed only once in the United States through the use of the pass-through business form. The TPA model does include a noncorporate sector and takes into account the effects of changes in the relative taxation of investment in the corporate and noncorporate sectors.



The Economic Benefits of Reducing the US Corporate Income Tax Rate

Prepared for the Reducing America's Taxes Equitably
Coalition

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Ernst & Young LLP

September 2011

Executive Summary

The US corporate income tax rate is the second highest among the largest 50 economies – exceeded only by Japan. The high US corporate income tax rate is an impediment to US investment and economic growth.

A lower US corporate income tax rate will provide important benefits to the US economy, US households, and the US tax system:

- Increased competitiveness of the United States in the global economy.
- Increased capital investment in the United States.
- Increased employment and living standards for Americans.
- Reduced impact of taxes on economic decisions.
- Expansion of the corporate tax base.

There is a broad consensus that the US statutory federal corporate tax rate should be lowered from its current 35 percent. Both President Obama and prominent members of Congress have pointed to the importance of lowering the corporate income tax rate to improve the competitiveness of the United States. Virtually all major tax and entitlement reform proposals have included a lower corporate income tax rate as a principal component.

Making the United States a more attractive place to invest for both US companies and foreign-based companies will help increase employment and improve living standards for Americans. A recent OECD study states that the corporate income tax, of all the different types of taxes, is the most harmful to economic growth. A lower corporate income tax rate will spur additional investment and employment, and increase productivity, and ultimately, living standards.

A lower corporate tax rate would also benefit all Americans by “leveling the playing field” for US based companies and improving the allocation of resources throughout the economy. The corporate tax system has been crafted over time in such a way as to favor some industries, sectors, assets, sources of finance, and various activities over others. At the time these features were put in place, they were done so with worthwhile objectives. However, when considered on an individual basis or in the context of a system with a significantly lower corporate income tax rate they may be viewed in a very different light. More even treatment through a lower corporate income tax rate would help expand the US economy and improve Americans’ living standards.

A significantly lower US federal corporate income tax rate is critical to a 21st century US economy and tax system.

The Economic Benefits of Reducing the US Corporate Income Tax Rate

Introduction

The current 35% federal corporate income tax rate has been identified as a serious impediment to US competitiveness, economic growth, and American households' standard of living. Most other developed countries have reduced their corporate income tax rates, some sharply, over the past several decades, leaving the United States with one of the highest corporate income tax rates among developed nations. The US statutory corporate tax rate is exceeded only by Japan¹ within the Organisation for Economic Cooperation and Development (OECD), and Japan is currently considering lowering its corporate tax rate by five percentage points. Importantly, the US corporate income tax rate ranks as one of the highest under several alternative measures.

There is a growing consensus that the US corporate tax rate should be lowered. Virtually all recent tax and entitlement reform proposals have included significant corporate rate reduction. In December 2010, the President's National Commission on Fiscal Responsibility and Reform proposed lowering the top federal corporate income tax rate to 28%. A plan cosponsored by Sens. Ron Wyden (D-OR) and Dan Coats (R-IN) proposed that the corporate rate be lowered to 24%, and a plan by House Budget Committee Chairman Paul Ryan (R-WI) included a top 25% corporate tax rate.

President Obama highlighted the need to lower the corporate tax rate in his State of the Union address earlier this year and in subsequent public remarks. Members of Congress have also pointed to the importance of lowering the corporate tax rate to improve US competitiveness. House Ways and Means Committee Chairman Dave Camp (R-MI) has advocated a 25% corporate tax rate, saying, "The current top corporate tax rate of 35% is 'out of step' with the tax rates of other industrialized nations, putting the United States at a competitive disadvantage for international business."² Senate Finance Committee Chairman Max Baucus (D-MT) has emphasized the need for corporate tax reform without specifying a specific target for the corporate tax rate.³ Congress has held hearings on corporate and business tax reform almost every week they have been in session.

A lower corporate tax rate would provide significant benefits to the US economy and American households. A lower corporate tax rate would better enable the United States to encourage additional domestic investment, attract foreign investment, and compete in the global economy. More investment made by companies means more capital flowing into the US economy. In turn, workers have more capital – newer computers, updated facilities and technologies, additional research – with which to work. This translates into more jobs, higher worker productivity and, ultimately, higher living standards.

Over the past several decades most other developed nations have reduced their statutory corporate income tax rates significantly. A number of recent studies have examined the effect of these lower corporate income tax rates and have found that lower corporate income tax rates affect workers by raising their wages. This new research indicates that workers have a considerable stake in lowering the US corporate income tax rate.

A lower corporate tax rate would also offer other benefits. It would reduce the current income tax system's penalty on saving and investment, reduce the tax barriers to investment in the corporate sector, reduce the incentive for firms to finance investment with debt rather than equity, and reduce the incentive for tax-motivated transactions and restructuring. A lower corporate tax rate would also reduce the disparate tax treatment of investment across asset types under the current tax system. Reducing the role played by taxes in these decisions would improve the allocation of resources and boost living standards by freeing up resources to be used more efficiently in the economy.

The corporate tax as a second layer of tax

The income of C corporations is subject to two levels of tax, first when income is earned at the corporate level, and again when the income is paid out to shareholders in the form of dividends or retained and later realized by shareholders as capital gains.⁴ These two levels of tax are often referred to as the “double tax” on corporate profits. Moreover, the corporate tax is primarily a tax on equity-financed investment because interest is a deductible expense while dividend payments to investors are not.

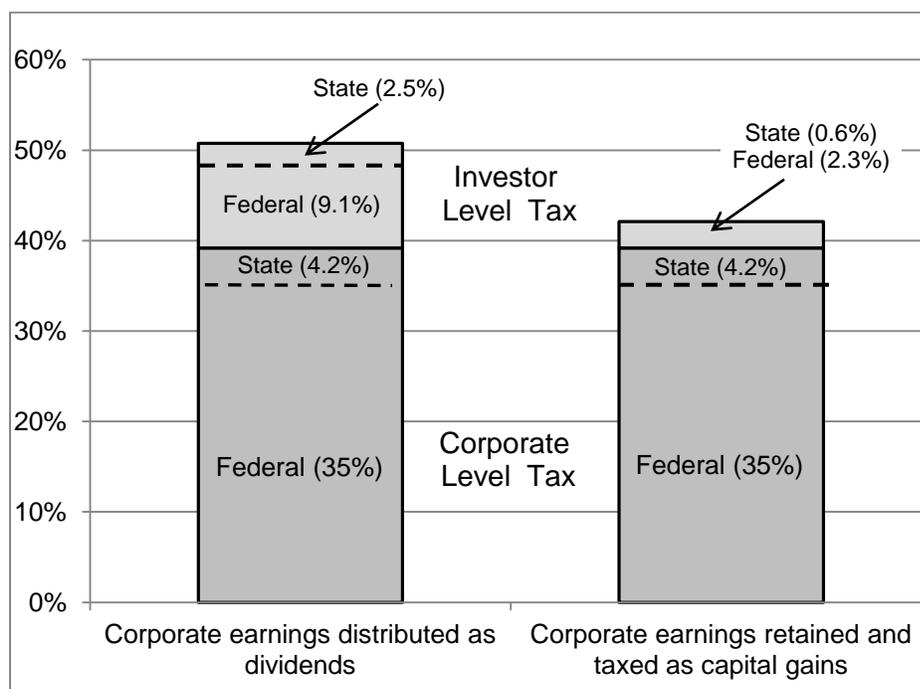
As shown in Figure 1, the overall effective tax rate on corporate earnings is much higher than simply the federal 35% statutory tax rate. First, corporate income tax is paid on earnings at the firm level at a top US corporate income tax rate of 39.2%, after combining the 35% federal corporate income tax rate with an average 4.2% state corporate income tax rate.⁵ Earnings paid to individual shareholders as a dividend are then subject to a current top federal tax rate of 15% and an average state tax rate of 4.0%. Thus, the overall top effective tax rate on corporate earnings paid out as dividends is 50.8%.⁶ For corporate earnings that are retained and reinvested in the firm, shareholders pay tax at a maximum statutory federal capital gains tax rate of 15% on the appreciation in stock value. The overall effective tax rate on corporate earnings that are retained is 42.1% after taking into account deferral of tax until realization.⁷

Considering corporate earnings from the broader perspective of the overall income tax is important because it illustrates not only how the corporate tax works to discourage investment in the US, but also how it discourages investment in the corporate sector compared to other sectors, and equity finance over debt finance.

Increased competitiveness of the United States in the global economy

Most other developed nations have lowered their corporate tax rates over the past decade while the U.S. corporate tax rate has remained unchanged. At the same time, increasing globalization amplifies the importance of differences in corporate tax rates across countries. In a global economy capital flows more freely across borders. Increased capital mobility makes it more sensitive to differential in its tax treatment. In addition, other advantages the United States once held such as a highly educated work force, large open markets, and infrastructure are less significant as formerly developing countries mature in the global economy.

Figure 1. Overall effective tax rate on corporate earnings, 2011



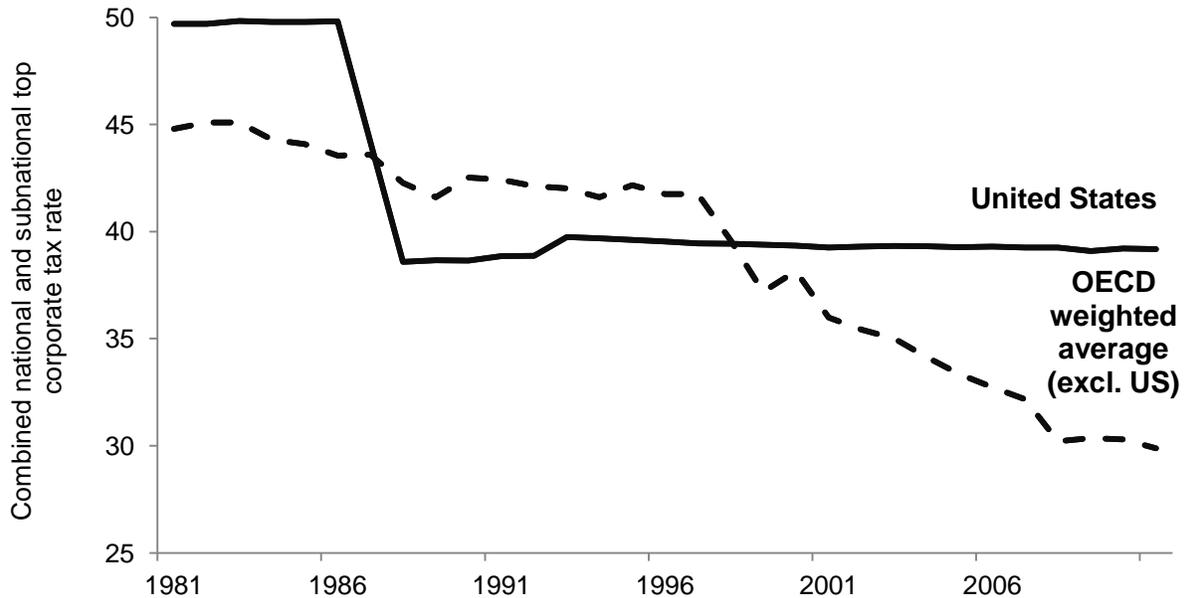
Source: Ernst & Young LLP.

Rates have fallen in other nations, while the US corporate tax rate has remained unchanged

As shown in Figure 2, the US statutory corporate income tax rate has remained largely unchanged for over two decades. The Tax Reform Act of 1986 lowered the top federal corporate income tax rate from 46% to 34%, which was followed by a 1% increase in 1993, bringing the rate to its current level of 35%. At the beginning of the 1980s, the US statutory corporate income tax rate was slightly above the OECD average, but since the late 1980s most other developed nations have reduced their statutory corporate income tax rates to levels often significantly below those of the United States. Today, the United States has a 39.2% combined federal-state statutory corporate income tax rate, which is significantly above the average 25.5% rate within the OECD (or 29.9% when weighted by GDP).

Countries continue to lower their corporate tax rates. Of the 34 OECD nations, 30 have lowered their statutory corporate income tax rates since 2000. The United Kingdom is scheduled to lower its corporate tax rate to 23% by 2015. Canada has lowered its federal corporate tax rate to 16.5% in 2011, with a reduction to 15% in 2012.⁸ The Japanese government earlier proposed lowering their corporate tax rate by five percentage point, but has been deferred due to the tsunami.

Figure 2 Average OECD member country corporate tax rate, 1981-2011



Note: Average weighted by exchange rate adjusted nominal GDP.

Source: Organisation for Economic Co-operation and Development, 2011.

Some policy analysts argue the US statutory corporate income tax rate is not the right measure for comparing the United States to other nations because it does not reflect differences in the tax base. The same trends, however, are reflected in other metrics for comparing effective corporate income tax rates. In several recent studies the effective marginal tax rates on new investment were found to be higher in the United States than the average for member nations of the OECD.⁹ In another study on effective tax rates based on financial statement data, the United States had an effective tax rate that was the second highest among the 15 countries analyzed, exceeded only by Japan.¹⁰ Furthermore, statutory tax rates do matter, and have significant economic effects as described below.

Globalization amplifies the economic effects from differences in corporate tax rates

Changes in the corporate income tax rate are much more important in the current global economy than in the past. Capital flows more freely across borders, and other countries' economies have grown rapidly as they have adopted more market-economy policies.

Nearly one-third of the US economy is now integrated with the rest of the world through international trade. US imports and exports increased dramatically over the past half century, growing 311% between 1962 and 2007, and now representing 29% of US gross domestic product (GDP). The total stock of foreign direct investment by US companies grew to 30.3% of GDP in 2009, up from just 7.7% in 1980.¹¹ For many US companies, foreign operations account for more than half of all sales. Foreign investments by US companies are expected to accelerate, as the International Monetary Fund projects 69% of the world's growth through 2014 will occur in developing countries.

Table 1 shows the rapidly changing global economy from the perspective of the locations of headquarters of the Fortune Global 500 companies. The number of Fortune Global 500 headquarters in the United States and Japan, the two major economies with the highest corporate income tax rates, has fallen 30 percent in just the past eleven years. The United States is the only country in the top ten that has not reduced its corporate tax rate in the past eleven years. The US corporate rate is eight percentage points above the average for the other top ten countries and almost ten percentage points above all of the other major global companies.

Table 1. Headquarter Locations of Fortune Global 500 Companies, 2000 to 2011

Country	2011	2000	Change in Number of Companies	2011 Corporate Tax Rate	Rate Reduction Since 2000
United States	133	179	-46	39.2%	0.0%
Japan	68	107	-39	40.7%	-2.6%
China	55	10	45	25.0%	-8.0%
France	36	37	-1	34.4%	-3.4%
Germany	34	37	-3	33.0%	-19.0%
United Kingdom	32	38	-6	26.0%	-4.0%
Switzerland	15	11	4	21.2%	-3.7%
Korea	14	12	2	24.2%	-6.6%
Netherlands	11	10	1	25.0%	-10.0%
Italy	10	10	0	31.4%	-8.1%
Total Top 10*	408	451	-43	31.2%	-8.6%
Other countries	92	49	43	26.5%	-9.2%
Total Global 500*	500	500	-	30.0%	-9.2%

* Average tax rates weighted by number of companies in the Global 500. Total and Top 10 averages exclude the United States for purposes of comparison.

Source: Fortune Global 500, Ernst & Young LLP, *2011 Worldwide Corporate Tax Guide*, 2011.

This globalization makes it easier for businesses and investors to reallocate or move their capital across borders in response to differences in countries' tax policies, which amplifies the detrimental effects of a high US corporate income tax rate. Research has found that the corporate income tax can have a large impact on where multinational companies choose to place their production facilities and on the size of these investments.¹² A lower US corporate tax rate

would reduce the tax on repatriated earnings of US-headquartered multinational corporations, and reduce the competitive disadvantage US multinationals currently have in bidding against foreign competitors for acquisition targets.

Additional US investment is important because it can spur additional local employment, increases in productivity that spill over to other segments of the local economy, and other benefits commonly associated with foreign direct investment. Research generally finds that foreign direct investment is highly sensitive to cross-country differences in after-tax returns. One study summarizing research in this area found that a 1 percentage point reduction in a host country's tax rate increased foreign direct investment by 2.9% and also found that the responsiveness of foreign direct investment has risen over time.¹³ Foreign direct investment in the US supported 5 million US jobs in 2010¹⁴; additional foreign investment would result in additional US employment.

Increased capital investment in the United States

A lower corporate income tax rate would enhance US economic performance by encouraging additional investment and capital formation in the US. A lower corporate income tax rate reduces the tax on the return to savings and investment in the US economy. Consequently, it would provide a greater incentive for investment by US companies and also make the United States a more attractive place to invest for foreign-headquartered companies.

A recent OECD study states that corporate income taxes, of all the different types of taxes, are most harmful to economic growth, emphasizing their effect of the tax rate on capital accumulation.¹⁵ The study notes that the adverse effects increase with the openness of the economy, although investment is affected across all firms.

Changes in capital investment – whether increasing the amount or productivity of existing US companies or encouraging location of a new manufacturing or research facility in the US – and its related employment and other economic activity are referred to as *real responses* to the tax system. They involve a change in the level of resources employed in the US. In contrast, *financial responses* involve the shifting of income and expenses between affiliated entities in different jurisdictions. Such responses might involve, for example, changes in a firm's financial structure or changes in the location of intangibles.

Real responses are generally regarded as more significant because they involve a fundamental change in the level of resources employed in the economy, while financial responses, often tax-rate motivated, involve principally the shifting of taxable income or deductions. Nevertheless, both types of responses are influenced by the statutory corporate income tax rate in the US relative to the statutory tax rates in other countries and both affect the revenues the US government can expect to collect from its corporate income tax. That is, lowering the corporate tax rate can help reduce the distortionary effects of taxes for both types of responses.

Increased employment and living standards for Americans

The accelerating pace of globalization over the last several decades has also prompted a rethinking of how the corporate income tax affects workers. While many economists once thought the corporate income tax fell only on investors by lowering their after-tax returns, a growing body of recent research indicates workers bear a significant share of the corporate income tax in the form of reduced employment opportunities and lower wages.¹⁶ These studies are recent and have received some skeptical responses¹⁷ but, nevertheless, the studies generally suggest that workers bear 40% to 75% of the burden of the corporate tax.¹⁸ If US workers, for example, bear 50% of the corporate tax, workers' compensation would be lower by \$100 billion to \$200 billion in aggregate (1.2% to 2.4% of total compensation) at the average level of corporate taxes between 2000 through 2010.

An increasing number of economists and policymakers believe globalization has shifted a significant percentage of the tax burden to labor. The US Treasury Department, for example, which for decades assumed corporate tax rates had no effect on labor, now assumes 25% of the incidence of corporate tax is borne by workers.

One implication of this view is that workers have a stake in ensuring that the US corporate tax rate is globally competitive. This research suggests looking beyond the corporate income tax system for the revenues needed to reduce the corporate tax rate to help attract investment to the United States, increase employment and living standards.

Reduced impact of taxes on economic decisions

More neutral treatment of investment – “leveling the playing field” – improves the allocation of capital in the economy. This allows economic resources to be used more productively in the economy. The end result is a higher level of overall economic activity and higher living standards for American households.

Sources of uneven treatment

Many types of investment face uneven tax treatment because of the various ways tax rates, depreciation deductions, tax deferral, and inflation interact and lead to different effective tax rates on investment. The double tax on corporate profits creates a bias against business capital investment by raising the overall US effective tax rate, and specifically on capital investment in the corporate sector, resulting in reduced corporate investment.

The greater taxation of equity-financed investments leads to an over-reliance on debt finance for corporate investment. This tax bias misallocates capital towards debt-financed investment. Higher debt burdens increase a firm's risk of bankruptcy during periods of industry or economy-wide weakness. Business failures generate significant losses to both shareholders and employees, and the heightened bankruptcy risk can make the entire economy more volatile. These issues are particularly relevant in light of the recent financial crisis.

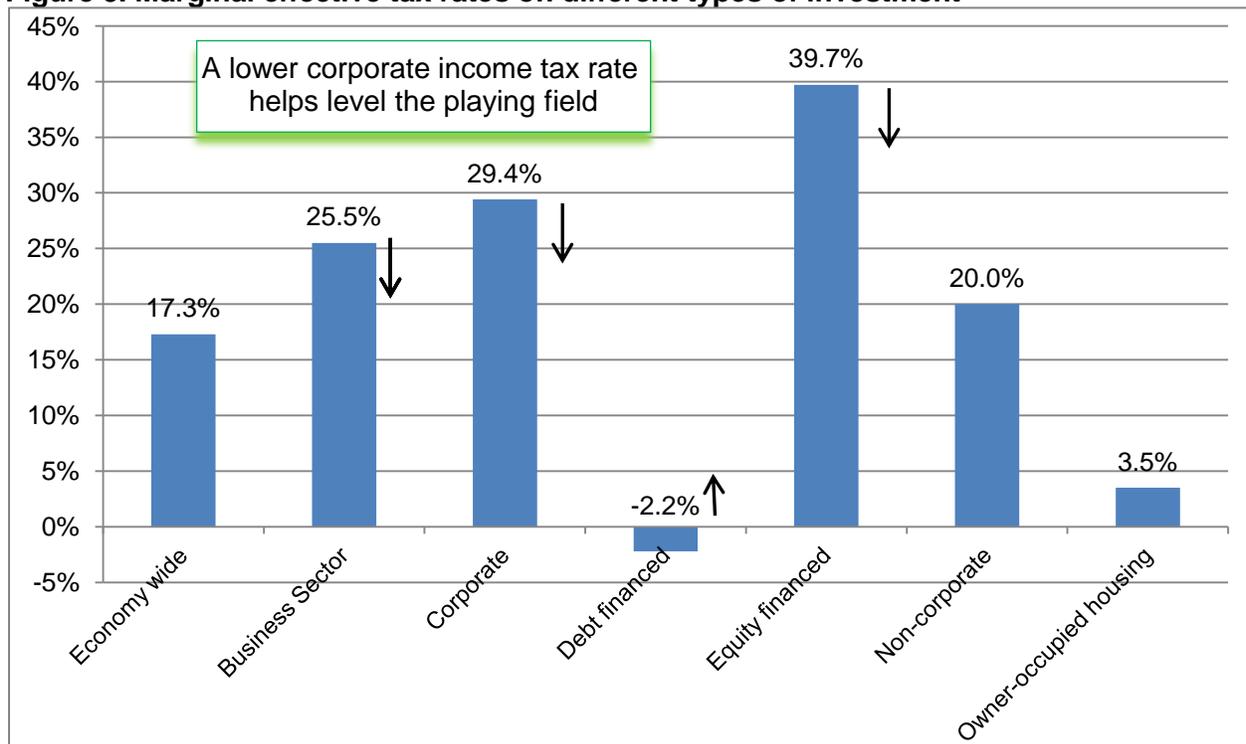
A lower corporate income tax rate would reduce the degree of uneven tax treatment and reduce the amount of tax-induced economic distortions in the US economy.

Measuring uneven treatment

Economists often use marginal effective tax rates (METR) to measure the impact of taxes on investment decisions. Marginal effective tax rates capture how various provisions in the tax code, including the statutory tax rate, depreciation deductions, interest deductions, deferral of tax liability, and both the individual and corporate levels of tax affect the after-tax rate of return to a new investment. The concept shows how much larger an investment's economic income needs to be to cover taxes over its lifetime.

In 2005, the US Treasury Department estimated the overall METR across all types of investment in the economy to be 17.3% (Figure 3). There is substantial variation in the METR across sectors, investment types, and source of finance, all indicating the potential for the misallocation of capital throughout the economy. For example, the METR for new investment in the corporate sector is estimated to be 29.4%, while the METR for investment in the non-corporate sector is only 20%. The higher METR of tax in the corporate sector primarily reflects the effect of the double tax on corporate profits.

Figure 3. Marginal effective tax rates on different types of investment



Source: US Department of the Treasury, *Treasury Conference on Business Taxation and Global Competitiveness: Background paper*, July 26, 2007.

While not illustrated in the graphic above, the same Treasury report found the METR for investment in structures is 34.2%, which is nearly 10% higher than the METR for investment in new equipment (25.3%). This difference reflects the benefit of accelerated depreciation provided

to most equipment, but not to structures. Finally, the METR for an equity-financed investment in the corporate sector is estimated at 39.7%, while the METR for a debt-financed investment is actually less than zero, -2.2%. This negative tax rate reflects the deductibility of interest expenses and the fact that a significant share of interest income is lightly taxed because it is held by pension funds, 401(k)s, or foreigners.

A lower corporate tax rate would reduce the METR on the business sector, the corporate sector, and equity financed capital investments, thus making a more level playing field.

Expansion of the corporate tax base

A lower corporate tax rate could increase the size of the corporate income tax base and provide some additional corporate tax revenue that would partially offset the static effect of a rate reduction. As noted above, a lower US corporate tax rate would make US-headquartered companies more competitive in the global economy, increasing their exports and overall global footprint including in the US. A lower corporate tax rate would also increase foreign investment in the US, as well as increase capital investment of domestic companies which would increase productivity and jobs.

With increasing globalization and the mobility of income, companies are able to arrange their affairs in a manner that reduces taxable income or increases deductions in response to differences in corporate tax rates across countries. One study finds that a 1% increase (decrease) in a country's tax rate leads to a decline (an increase) in reported before-tax income of 2.7%, based on a sample of fifteen industrial sectors in a group of sixteen OECD countries.¹⁹ This study suggests that the revenue increase (decrease) from a unilateral increase (decrease) in the statutory tax rate is on average reduced by roughly more than 65%.

Broadly similar results are obtained by a more recent study of the experience with changes in statutory corporate tax rates in Europe, which finds that for every 1% decrease in the statutory corporate income tax rate, the corporate tax base (i.e., corporate taxable income) expands by 0.45 percent.²⁰

Another recent study found that for every percentage point difference in corporate tax rates between the United States and a particular foreign country, reported taxable profits abroad can be expected to increase by one-half a percentage point.²¹ This can have potentially large effects on the size of the US corporate tax base and corporate income tax revenues by inducing US and foreign-owned multinational corporations to reduce taxable profits in the United States.

A one percentage point lower corporate tax rate has been estimated to cost approximately \$100 billion over 10 years (CBO estimate).²² If the US were to significantly lower its corporate tax rate, and achieved both higher capital investment, more level capital tax treatment, and reduced taxable income shifting, the potential revenue cost per percentage point reduction could be significantly less than the static revenue estimate.

Tradeoffs in financing a lower corporate tax rate

Finding sources of funding for a lower corporate tax rate in the current economic and budget environment may be difficult, but is important to achieve. Some have suggested corporate tax reform might help raise additional revenue to address the federal government's long-term fiscal imbalance. Using corporate tax reform to help reduce the deficit, however, would make lowering the corporate tax rate more difficult. Making the US more competitive would help improve economic growth, create jobs and lift living standards, and, at the same time, help address the nation's fiscal imbalance by expanding the size of the tax base.

It should be noted that the United Kingdom as part of its 2011 deficit reduction program included an immediate reduction in their corporate income tax rate from 28% to 26%, and is phasing its corporate tax rate down to 23% by 2015. Their deficit reduction program included significant spending reductions (while enhancing certain parts of their social safety net), some income tax base broadening, increased tax enforcement, plus a 2.5% percentage point increase in their value added tax rate. The UK government considered making their tax system more globally competitive sufficiently important to enact corporate tax rate reductions along with deficit reduction.

Others have looked to broadening the corporate tax base to finance a lower corporate tax rate. However, it is unclear how much the corporate income tax rate could be lowered through broadening of the corporate tax base alone. One study on corporate tax reform has suggested that the globalization of the world economy may provide a rationale for looking beyond the corporate tax base for revenue to lower the corporate tax rate.²³ This study suggests that the changes in the global economy, particularly the increased mobility of capital compared to labor, have made it increasingly difficult to tax capital. This may be part of the explanation for why other countries have lowered their corporate income tax rates.

Summary

Most other developed countries have sharply lowered their corporate tax rates over the past several decades, leaving the United States with the second highest corporate income tax rate among the 50 largest economies. Other countries continue to lower their corporate income tax rates, leaving the United States further out of step.

Lowering the corporate income tax rate would benefit the American economy by increasing employment and Americans' standard of living. It would benefit workers by making the United States a more favorable place to invest by both US companies and foreign companies. In addition to spurring capital formation and increasing employment, a lower corporate tax rate would also benefit Americans by improving the allocation of resources throughout the economy and increasing workers' productivity and living standards.

Endnotes

¹ Japan had proposed earlier this year to lower its corporate tax rate to 35.7%, which would have ranked the United States as the country with the highest statutory corporate tax rate among developed nations. This proposal, however, has not moved forward.

² Brett Ferguson and Heather M. Rothman, "Camp Sets 25 Percent Goal for Top Business, Individual Tax Rates," *BNA Daily Tax Report*, March 18, 2011.

³ Statement by Sen. Max Baucus (D-MT) on How the Tax Code Affects Hiring and Business Growth. Senate Finance Committee hearing, on July 27, 2011.

⁴ In contrast, flow-through businesses – S corporations, partnerships, limited liability companies, sole proprietorships – are generally only taxed once, at the owner level.

⁵ This calculation takes into account the deductibility of state corporate income taxes for federal tax purposes.

⁶ The top effective tax rate on corporate earnings paid out as dividends is calculated as $39.2\% + (100\% - 39.2\%) \times 19.1\%$, where the combined federal-state corporate tax rate is 39.2% and the combined federal-state dividend tax rate is 19.1%.

⁷ The top effective tax rate on corporate earnings paid out as capital gains is calculated similarly to the same effective rate for dividends except that the calculation reflects the benefit of deferral of tax until gains are realized and the step-up of basis at death, each of which reduce the combined federal-state statutory tax rate on capital gains by one-half.

⁸ Canada lowered its corporate tax rate from 30.5% to 28.5% effective January 1, 2011 (including both the federal and provincial rates). This rate will be further reduced in 2012 and again in 2013.

⁹ Effective marginal tax rates measure the taxes paid on the last dollar of new investment and take into account statutory rates plus features of the tax code that affect the taxes paid on new investment such as depreciation deductions, inventory allowances, and interest deductions. See Robert Carroll, "Comparing International Corporate Tax Rates: U.S. Corporate Tax Rate Increasingly Out of Line by Various Measures," Tax Foundation Fiscal Fact No. 143, August 28, 2008 and Duanjie Chen and Jack Mintz, "Taxing Business Investments: A New Ranking of Effective Tax Rates on Capital," World Bank, July 2008.

¹⁰ See Kevin S. Markle and Douglas A. Shackelford, "Cross-Country Comparisons of Corporate Income Taxes," University of North Carolina, NBER Working Paper No. 16839, February 2011.

¹¹ United Nations Conference on Trade and Development, "World Investment Report" database. Foreign direct investment by foreign companies into the United States also has grown. Foreign direct investment into the United States grew from 3% of GDP in 1980 to 15.7% of GDP in 2008.

¹² For example, see Michael Devereux and Ben Lockwood, "Taxes and the size of the foreign-owned capital stock: Which tax rates matter? Mimeo, April 2006.

¹³ Ruud de Mooij and Sjef Ederveen, "How Does Foreign Investment Respond to Taxes: A Meta-Analysis," Tinbergen Institute Discussion Paper T12005-108/3, Rotterdam, 2005. Examples of specific studies include Rosanne Altshuler and Harry Grubert, "Taxpayer Responses to Competitive Tax Policies and Tax Policy Responses to Competitive Taxpayers: Recent Evidence," *Tax Notes International* 34, June 28, 2004, pp. 1349-1362; and, Rosanne Altshuler, Harry Grubert and T. Scott Newlon, "Has U.S. Investment Abroad Become More Sensitive to Tax Rates?" In *International Taxation and Multinational Activity*, ed., James R. Hines, Jr., (Chicago, University of Chicago Press, 2001), pp. 9-32.

¹⁴ U.S. Department of Commerce, "Foreign Direct Investment in the United States," Economics and Statistics Administration Issue Brief #02-11, June 2011.

¹⁵ Johansson et al, *supra* note 1.

¹⁶ Mihir A. Desai, C. Fritz Foley and James R. Hines, "Labor and Capital Shares of the Corporate Tax Burden: International Evidence," Prepared for International Tax Policy Forum Conference, Who Pays the Corporate Tax in an Open Economy, December 18, 2007; Alison R. Felix, "Passing the Burden: Corporate Tax Incidence in an Open Economy," Federal Reserve Bank of Kansas City, October 2007; Alison R. Felix and James R. Hines, "Corporate Taxes and Union Wages in the United States," NBER Working Paper No. 15263, August 2009; Robert Carroll and Gerald Prante, "Corporate Income Taxes and Wages: Evidence from the 50 States," Tax Foundation Working Paper, 2010; Kevin Hassett and Apama Mathur, "Spatial Tax Competition and Domestic Wages," American Enterprise Institute Working Paper, November 2010; Li Liu and Rosanne Altshuler, "Measuring the Burden of the Corporate Income Tax Under Imperfect Competition," Oxford University Center for Business Taxation, WP 11/05, April 27, 2011; and Arulampalam, Michael P. Devereux and Giorgia Maffini, "The Direct Incidence of Corporate Income Tax on Wages," Oxford University Centre for Business Taxation, WP 07/07, May 2011. For a recent review of these studies, see Jennifer C. Gravelle, "Corporate Tax Incidence: A Review of Empirical Estimates and Analysis," Congressional Budget Office Working Paper 2011-01, June 2011.

¹⁷ See, for example, William Gentry, "A Review of the Evidence on the Incidence of the Corporate Income tax," U.S. Treasury Department, Office of Tax Analysis Working Paper No. 101, December 2007; Jane Gravelle and Thomas Hungerford, "Corporate Tax Reform: Issues for Congress," Congressional Research Service, Updated July 24, 2008; Jennifer C. Gravelle, "Corporate Tax Incidence: Review of General Equilibrium Estimates and Analysis," Congressional Budget Office, Working Paper Series, May 2010, p. 34; and Jennifer C. Gravelle, "Corporate Tax

Incidence: A Review of Empirical Estimates and Analysis," Congressional Budget Office Working Paper 2011-01, June 2011.

¹⁸ The U.S. Treasury Department, for example, which for decades assumed a zero impact, now assumes 25% of the incidence of corporate tax is borne by labor.

¹⁹ Eric J. Bartelsman and Roel M. W. J. Beetsma, "Why Pay More? Corporate Tax Avoidance Through Transfer Pricing in OECD Countries," *Journal of Public Economics*, Vol. 87, 2003, pp. 2225-2252.

²⁰ Harry Huizinga and Luc Laeven "International Profit Shifting within Multinationals: A Multicountry Perspective," *Journal of Public Economics*, Vol. 92, 2008, pp.1164-1182.

²¹ Kimberly Clausing, "Multinational Firm Tax Avoidance and Tax Policy," *National Tax Journal*, December 2009.

²² Congressional Budget Office, Budget Options – Volume 2, August 2009.

²³ Rosanne Altshuler and Harry Grubert, "Corporate Taxes in the World Economy: Reforming the Taxation of Cross-Border Income," Department of Economics, Rutgers University Working Paper 2006-26, December 2006.