

# **Macroeconomic Impacts of Corporate Tax Reform**

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## **Executive Summary**

The United States corporation income tax features a very high rate and worldwide base, two features that put it at odds with international norms and harm the growth and competitiveness of the U.S. We investigate the ability to achieve an internationally competitive rate using the conventional list of tax expenditures to broaden the tax base. This approach yields a tax rate of 26.3 percent.

This estimate ignores the potential growth effects of corporate tax reform. We estimate that a comprehensive tax reform, including moves to a territorial tax system, with a statutory tax rate of at least 25 percent would be revenue neutral – inclusive of growth effects – and would raise trend economic growth by 1 percentage point. In the near term, this would translate to roughly 1 million more jobs. Over the longer run, the beneficial effects of faster growth would accrue to workers in the form of higher income – an additional \$10 trillion in GDP – and faster wage growth.

## Introduction

The United States is suffering through an era of sluggish economic growth, stubbornly high unemployment, and precarious levels of federal debt. At the same time, a partisan and divided government has shown little ability to reach consensus or compromise on major policy issues ranging from health care reform, to entitlement reform, to defense budgeting.

Perhaps surprisingly, one area that is highlighted by the Administration and Congress alike is the desirability of reforming the corporation income tax. Calls for corporate tax reform have emanated from both political parties, both Houses of Congress, and the Executive Branch. Corporate tax reform offers the opportunity for the United States to enhance economic growth and lower unemployment by updating its out-of-date system of business taxation.

A corporate tax reform that lowered the U.S. tax rate would return the U.S. to international tax norms, ridding it of the dubious distinction of having the highest statutory tax rate in the world. U.S. firms are increasingly at a disadvantage competing for the vast majority of world consumers and international markets as other nations adopt more favorable tax treatment of foreign-source income.

This paper seeks to outline the characteristics of a corporate tax reform yielding an internationally-competitive tax rate. Such a reform characterized by revenue-neutrality, a complementary territorial international taxation regime, and a significant reduction in the federal statutory rate could have dramatic economic effects.

## The U.S. Corporation Income Tax: An International Outlier

The single most important characteristic of the U.S. corporate tax is that the rate is too high. As of April 2012, the combined federal-state U.S. corporate tax rate of 39.2 percent became the highest among all major developed economies – eclipsing Japan, which recently lowered its combined rate to 38 percent.<sup>1</sup> The high U.S. rate is seemingly not a matter of deliberate choice. Instead, it stems from a failure to acknowledge and keep abreast of broader global trends.

The U.S. corporate tax rate is essentially unchanged since 1986, when a significant rate reduction was enacted.<sup>2</sup> Prior to 1986, the U.S. levied corporate taxes in excess of the Organization for Economic Cooperation and Development (OECD) average. By 1988, when the 1986 reform was fully implemented, the combined U.S. statutory rate had fallen below the OECD average.

Since 1988, however, the U.S. has again become a corporate tax outlier. According to OECD data from 1988-2011, every OECD nation, except the U.S., reduced its combined statutory corporate tax rate. On average, these nations saw a decline of 18 percentage points in combined statutory rates. The only OECD nation that saw a net increase in the combined statutory rate was the United States – the result of a 1-percentage point increase in 1993.

While statutory tax rates are critical to firm investment decisions, other measures of corporate taxation also warrant consideration.<sup>3</sup> A firm's *effective* tax rate includes other facets of the corporate tax code, such as credits and deductions, which figure in the determination of a firm's tax burden. While less stark than top statutory rates, an international comparison of effective corporate rates still paints the U.S. in an unfavorable

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<sup>1</sup> <http://taxfoundation.org/article/countdown-over-were-1>

<sup>2</sup> [http://www.oecd.org/document/60/0,3746,en\\_2649\\_34533\\_1942460\\_1\\_1\\_1\\_1,00.html#C\\_CorporateCapital](http://www.oecd.org/document/60/0,3746,en_2649_34533_1942460_1_1_1_1,00.html#C_CorporateCapital)

<sup>3</sup> Alan J. Auerbach, Michael P. Devereux, and Helen Simpson, "Taxing Corporate Income," National Bureau of Economic Research Working Paper No. 14494, November 2008.

light. According to a study by PricewaterhouseCoopers, “companies headquartered in the United States faced an average effective tax rate of 27.7 percent compared to a rate of 19.5 percent for their foreign-headquartered counterparts. By country, U.S.-headquartered companies faced a higher worldwide effective tax rate than their counterparts headquartered in 53 of the 58 foreign countries.”<sup>4</sup>

Not only has the U.S. increasingly fallen outside the norms of international taxation in terms of rates, but also in terms of how foreign-source income is taxed. The proportion of income earned abroad has increased significantly in recent years, owing primarily to increasing market opportunities overseas, particularly in emerging economies. Cross-border foreign direct investment across all countries has increased from less than 6 percent of world GDP in 1980 to 33 percent in 2009; American companies accounted for 40 percent of world cross-border investment in 1980, and currently accounts for less than 23 percent.<sup>5</sup>

Considering that approximately 95 percent of the world’s potential customers and 75 percent of the world’s purchasing power falls outside the U. S., the means by which foreign-source income is taxed must figure prominently in any potential corporate tax system. Unfortunately, in this regard the U.S. maintains a system of taxation that is increasingly anachronistic among major economies.

The U.S. corporation income tax applies to the worldwide earnings of U.S. headquartered firms. U.S. companies pay U.S. income taxes on income earned both domestically and abroad, although the U.S. allows a foreign tax credit up to the U.S. tax liability for taxes paid to foreign governments. Active income earned in foreign countries is generally only subject to U.S. income tax once it is repatriated, giving an incentive for companies to reinvest earnings anywhere but the U.S., owing to its high corporate tax rate. This system distorts the international behavior of U.S. firms and essentially traps foreign earnings that might otherwise be repatriated back to the U.S. Moreover, certain additional changes have been considered recently that would increase the tax liability on foreign earnings. One recent study detailed the pernicious effects that ending the ability of U.S. to defer high U.S. corporate taxes on foreign income would have on domestic employment.<sup>6</sup>

Whereas the U.S. has maintained an international tax system that disadvantages U.S. firms abroad, many U.S. trading partners have shifted to a territorial system, a system that exempts entirely, or to a large degree, foreign source income. Of the 34 economies in the OECD for example, 26 have adopted such systems, including recent adoption by Japan and the United Kingdom.<sup>7</sup>

Maintaining the U.S. worldwide system in light of the majority-territorial systems in the OECD compounds the incentive for firms to keep earnings offshore in the face of high domestic rates. The combination of high rates and an increasingly outmoded worldwide tax system disadvantages U.S. firms abroad, where market opportunities are growing.

### **Domestic Impacts of the Corporation Tax**

The U.S. corporate tax system harms its global firms compared to its major trading partners. At the same time, there are substantial negative impacts on entirely domestic firms as well. All else being equal, firms should behave in accordance with business considerations. The degree to which tax policy changes firm decisions represents a distortion that misallocates resources and reduces economic efficiency and growth. In each case, the higher is the corporation tax rate the greater will be the detrimental impact.

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<sup>4</sup> [http://businessroundtable.org/uploads/studies-reports/downloads/Effective\\_Tax\\_Rate\\_Study.pdf](http://businessroundtable.org/uploads/studies-reports/downloads/Effective_Tax_Rate_Study.pdf)

<sup>5</sup> Testimony of Robert A. McDonald, Chairman, Fiscal Policy Initiative, Business Roundtable, before the House Committee on Ways and Means, Hearing on Tax Reform. 20 January 2011.

<sup>6</sup> <http://economics.kenyon.edu/melick/Research/OhioEmployment.pdf>

<sup>7</sup> [http://businessroundtable.org/uploads/studies-reports/downloads/Taxation\\_of\\_American\\_Companies.pdf](http://businessroundtable.org/uploads/studies-reports/downloads/Taxation_of_American_Companies.pdf)

One example is the legal structure of a firm. There is evidence that the corporate tax code can reduce the incentive to organize business activity as a Schedule C corporation in favor of other forms of organization, this has been found to impose a cost by misallocating entrepreneurial talent in the economy.<sup>8</sup>

### **Parameters of Corporate Tax Reform**

The discussion thus far indicates that the corporate rate is too high, with deleterious effects on U.S. global competitiveness, corporate investment, productivity and capital structures. Indeed there is merit to the argument that the United States should completely eliminate the current approach to corporate taxation; one that taxes capital twice, and demonstrably disadvantages major U.S. employers.<sup>9</sup> However, in the current fiscal environment, the elimination of a significant revenue source is likely not feasible. The U.S. corporate tax is responsible for an average of 11 percent of U.S. revenue collection.<sup>10</sup> In the absence of major reforms outside the scope of corporate tax reform, any reform must therefore be at least revenue neutral.

#### *Revenue Neutrality*

Current budgetary practice does not attempt to estimate or otherwise incorporate changes in aggregate national income that result from tax reforms. Thus, while one might expect rate reduction to increase economic growth, the implications of that growth will not be incorporated in Congressional revenue estimates of corporate tax reform. Thus, in such so-called “static scoring,” rate reduction must be matched on a dollar-for-dollar basis with other offsetting revenue increases. To the extent contemplated reforms are confined to business taxes alone, offsetting revenue increases must necessarily come from tax preferences within the existing code effecting U.S. firms. While many U.S. employers utilize existing tax preferences that can lower the effective tax rate below the statutory rate, exchanging these elements of the tax code for rate reduction is both consistent with the broad view of constructive tax reform characterized by a broader base and lower rates, and the view of many such employers.<sup>11</sup>

Within this construct, the degree of rate reduction is directly linked to the degree of base broadening. Typically, the universe of tax preferences considered as part of any base-broadening effort is confined to specific deductions or “tax expenditures” identified by the Joint Committee on Taxation (JCT). A 2011 estimate noted that the revenue loss associated with the tax expenditures identified by the Committee could be exchanged for sufficient rate reduction to reduce the corporate rate to 28 percent.<sup>12</sup> As with any estimate, there is some uncertainty about the actual magnitudes, but it does suggest that getting a lower rate may require base-broadening beyond the universe of tax expenditures identified by the JCT.

Additional estimates suggest that applying this principle to all business would allow for further rate reduction than observed by the JCT. Harmonizing this treatment tax among firms could also address organizational distortions noted above. With these considerations in mind, base-broadening (detailed in appendix A) would allow for a reduction in the corporate tax rate to 26.3 percent.<sup>13</sup>

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<sup>8</sup> Jane G. Gravelle and Laurence J. Kotlikoff, "The Incidence and Efficiency Costs of Corporate Taxation When Corporate and Non-Corporate Firms Produce the Same Good," *Journal of Political Economy*, Vol. 97, No. 4 (August 1989), pp. 749-780.

<sup>9</sup> Note that business tax as pass-through entities do not bear a double-tax burden.

<sup>10</sup> <http://www.cbo.gov/publication/42911>

<sup>11</sup> <http://www.ratecoalition.com/images/rate%20tax%20vp%20letter.pdf>

<sup>12</sup> <http://democrats.waysandmeans.house.gov/media/pdf/112/JCTRevenueestimatesFinal.pdf>

<sup>13</sup> Quantria

An important consideration of the reform outlined above is its impact on growth incentives. Taken in isolation, the elimination of accelerated depreciation harms investment incentives, although the actual impact depends on the interaction of cuts in the corporate tax rate and changes in depreciation schedules. The interaction is potentially complex. The value of depreciation allowances diminishes as the tax rate is lower, and as interest rates rise. As a result, a move toward a lower tax rate combined with elimination of accelerated depreciation may not universally improve investment incentives. However, in the current climate of low interest rates and low inflation, the net effect is likely to be pro-investment for all but the longest-lived (25 years and up) assets.

### *International Considerations*

One element of a modern corporate tax reform is moving towards a territorial tax system, which would reduce the tax burden on foreign-source income and more competitively situate U.S. multinationals. As noted above, this is the system adopted by most of our major trading partners. While the design of a territorial tax system can be complicated, Ways and Means Chairman Camp outlined a framework for such a system that provides a credible approach to reform of the U.S. international tax system. Key elements of the Camp proposal include:

*Territorial Tax System:* U.S. corporations would generally be entitled to claim a 95 percent dividends-received deduction (DRD) for dividends received by U.S. corporations from controlled foreign corporations (CFCs). This translates to an effective tax rate of 1.25 percent on the foreign earnings. Corporations would not be entitled to claim a foreign tax credit with respect to any dividend eligible for the 95 percent DRD. The proposal treats foreign branches of domestic corporations as CFCs for this purpose. When a U.S. corporation sells or otherwise disposes of stock of a CFC, the corporation may exclude 95 percent of the gain from its income for U.S. tax purposes.

*Deemed Repatriation of Existing Undistributed Earnings:* The proposal requires that prior to the territorial tax system rules taking effect, U.S. corporations are required to pay tax on all un-repatriated foreign earnings; or the at least \$1 trillion in earnings “trapped” offshore noted above. An 85-percent DRD is permitted for these earnings and the current-law tax rate structure applies, resulting in an effective tax rate of 5.25 percent on the earnings. The tax liability attributable to this deemed repatriation may be spread over an eight-year period (with interest).

*Foreign Tax Credits:* The proposal simplifies and reforms the foreign tax credit provisions by eliminating the separate general category and passive income category limitations. Under the proposal, taxpayers may only subtract directly allocable deductions from gross foreign-source income to arrive at taxable foreign-source income. The proposal permits the Treasury to determine rules with respect to the carryback of income after the proposal takes effect to tax credit baskets in effect prior to the effective date.

*Rules Relating to Passive Foreign Income:* The proposal adopts a number of rules relating to passive foreign income. The proposal repeals the current-law requirement that a U.S. shareholder must include in income the amount of deferred earnings and profits invested in U.S. property. The proposal also eliminates the current-law rule that excludes from income of a U.S. shareholder distributions from a foreign subsidiary that were previously included in the shareholder’s income under Subpart F.

*Base Erosion Protection Rules:* The proposal provides a series of options to prevent the erosion of the U.S. tax base by multinational corporations through the shifting of highly mobile income, for example intangible assets, or the use of excessive debt. The three options (Options A, B, and C) identified in the draft proposal were contained in the Obama Administration’s fiscal year 2011 and 2012 budget proposals and in the recommendations to the Joint Select Committee on Deficit Reduction.

These specifications would place the U.S. more closely in line with other major world economies. Belgium, France, Germany, Italy, Japan, Slovenia, and Switzerland all provide a 95 percent exemption for foreign-source dividends.<sup>14</sup> The potential revenue effects of any such reform are subject to the specificity of reform, and are not contemplated in this analysis. Rather, this estimate assumes the international tax reform occurs as a complementary effort.

### **Corporate Reform and the U.S. Economy**

Earlier research on the economic effects of corporate taxes was largely focused on closed economies.<sup>15</sup> Despite this limitation, this early work revealed many of the pernicious effects of corporate taxes, and laid the foundation for better understanding of the tax. While the U.S. corporate tax code had remained largely unchanged for decades, there has been significant global economic and geopolitical change in the intervening years. In an increasingly interdependent global economy, corporate taxes must be considered in the context of high capital mobility, a world that only amplifies flaws observed in the early literature. In a global economy where investment can more easily shift, the implications for economic growth from corporate tax policy can be significant.

There is a strong body of research identifying the negative effect on investment and capital formation from corporate tax.<sup>16</sup> Recent work has furthered the understanding that a high corporate tax rate increases the user cost of capital, which slows investment, productivity, and economic growth. Djankov *et. al.* present a robust finding that “the effective corporate tax rate have a large adverse impact on aggregate investment, FDI, and entrepreneurial activity.”<sup>17</sup> Among the more telling examples is a recent study by the OECD that notes “corporate income taxes have the most negative effect on GDP per capita.”<sup>18</sup>

Another OECD study found that reducing the statutory corporate tax rate from 35 percent to 30 percent increases the ratio of investment to capital by approximately 1.9 percent over the long term.<sup>19</sup> This is also consistent with the finding from the JCT, which observed that reducing corporate income taxes have the greatest effect on long-term growth by increasing stock of productive capital, which leads to higher labor productivity.<sup>20</sup>

In a 2008 OECD study of how corporate taxes affect investment decisions, Arnold and Schwellnus conclude that corporate taxes lower the rate of return for innovative-risky investments, reducing innovation and risk-taking.<sup>21</sup> To the extent that the corporate income tax discourages risk-taking, this suggests that the corporate

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<sup>15</sup> Arnold C. Harberger, "The Incidence of the Corporation Income Tax," *Journal of Political Economy*, Vol. 70, No. 3 (June 1962), pp. 215-240.

<sup>16</sup> See Kevin A. Hassett and R. Glenn Hubbard, "Tax Policy and Business Investment," chap. 20 in Alan J. Auerbach and Martin Feldstein, eds., *Handbook of Public Economics*, Vol. 3 (Amsterdam: North Holland, 2002), pp. 1293-1343.

<sup>17</sup> Djankov, Simeon, Tim Ganser, Caralee McLiesh, Rita Ramalho, and Andrei Shleifer: "The Effect of Corporate Taxes on Investment and Entrepreneurship." *American Economic Journal: Macroeconomics*, 2(3): 31–64, July 2010.

<sup>18</sup> Jens Arnold, "Do Tax Structures Affect Aggregate Economic Growth? Empirical Evidence from a Panel of OECD Countries," Organisation for Economic Co-operation and Development Economics Department Working Paper No. 643, October 14, 2008, p. 18, at [http://www.oecd.org/officialdocuments/displaydocumentpdf/?cote=eco/wkp\(2008\)51&doclanguage=en](http://www.oecd.org/officialdocuments/displaydocumentpdf/?cote=eco/wkp(2008)51&doclanguage=en)

<sup>19</sup> Asa Johansson, Christopher Heady, Jens Arnold, Bert Brys, and Laura Vartia, "Tax and Economic Growth," Organisation for Economic Co-operation and Development Economics Department Working Paper No. 620, July 2008, at <http://www.oecd.org/dataoecd/58/3/41000592.pdf>

<sup>20</sup> "Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief." Joint Committee on Taxation, JCX-4-05, 1 March 2005.

<sup>21</sup> Arnold, Jens and Cyrille Schwellnus: "Do corporate taxes reduce productivity and investment at the firm level? Cross-Country evidence from the Amadeus dataset." OECD Economics Department Working Paper No. 641, September 30, 2008.

income tax is like a “success tax” that firms with higher than average productivity must face, which is consistent with Gentry and Hubbard.<sup>22</sup>

Perhaps the most clearly stated observation of the growth implications for corporate tax reform is from Gordon and Lee, who found that cutting the corporate tax rate by 10 percentage points can increase the annual growth rate by between 1.1 percent and 1.8 percentage points.<sup>23</sup>

#### *Static Tax Reform and Economic Growth*

As noted above, the effect of aggressive base-broadening (see Appendix) is the revenue available for revenue-neutral rate reduction. According to our estimates, this would permit a federal statutory corporate tax rate of 26.3 percent, 8.7 percentage points lower than the current rate – a 25 percent reduction. According to Lee and Gordon, such a reduction would result in significant economic growth. While presumably lower than their range of 1.1-1.8 percentage points, an increase of in the annual growth rate of approximately one percent would not be inconsistent with their finding. According to the administration’s own estimates, this rate of growth would yield 1 million additional jobs in the near term<sup>24</sup>.

#### *Dynamic Impacts and Tax Reform*

Improving the trend U.S. growth rate has dramatic impacts on the ability to cut the corporate tax rate. U.S. GDP is roughly \$15.5 trillion at present. Over the next ten years, the difference between an average annual growth rate of, say, 2.5 percent and 3.5 percent is over \$10 trillion dollars. If the share of corporation income in GDP is only 10 percent, this amounts to an additional \$1 trillion of corporate income, which would yield an additional \$270 billion in additional revenue that could be devoted to rate reduction, which would in turn complement the beneficial growth effects.

We estimate that a comprehensive tax reform, including moves to a territorial tax system, with a statutory tax rate of at least 25 percent would be revenue neutral – inclusive of growth effects – and would raise trend economic growth by 1 percentage point. In the near term, this would translate to roughly 1 million more jobs. Over the longer run, the beneficial effects of faster growth would accrue to workers in the form of higher income – an additional \$10 trillion in GDP – and faster wage growth.

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<sup>22</sup> Gentry, W. and R.G. Hubbard: “Success Taxes, Entrepreneurial Entry, and Innovation.” National Bureau of Economic Research, NBER Working Paper No. 10551, June 2004.

<sup>23</sup> Young Lee and Roger Gordon, “Tax Structure and Economic Growth,” *Journal of Public Economics*, Vol. 89, Issues 5-6 (June 2005), pp. 1027-1043

<sup>24</sup> This approach underlay the administration’s estimate of the employment effects of the stimulus legislation. According to a report authored by Drs. Christina Romer and Jared Bernstein employed, “a relatively conservative rule of thumb that a 1 percent increase in GDP corresponds to an increase in employment of approximately 1 million jobs.” According to the authors, “this has been the rough correspondence over history and matches the [Federal Reserve’s] FRB/US model reasonably well.”

[http://www.politico.com/pdf/PPM116\\_obamadoc.pdf](http://www.politico.com/pdf/PPM116_obamadoc.pdf)

## Appendix: Major Base Broadeners by Revenue

Item	Provision	(Billions of Dollars)
1	Repeal MACRS and apply alternative depreciation system; other depreciation provisions*	724.0
2	Repeal expensing of research and experimentation expenditures*	166.1
3	Repeal the deduction for income attributable to domestic production activities*	163.9
4	Inventory Method and Valuation: Repeal last in, first out*	79.8
5	Repeal the credit for low-income housing*	43.9
6	Repeal the deferral of gain on like-kind exchanges*	26.2
7	Repeal the deferral of gain for non-dealer installment sales	15.0
8	Repeal the completed contract rules method*	14.7
9	Repeal percentage depletion for oil and natural gas wells*	12.6
10	Repeal exclusion of interest on private activity bonds*	11.7
11	Repeal credit for employer-paid FICA on tips*	8.4
12	Credit for orphan drug research	7.8
13	Repeal expensing of oil and gas exploration and development costs*	7.6
14	Repeal the rehabilitation credit*	7.0
15	Expand pro-rata interest expense disallowance for company-owned life insurance*	6.8
16	Repeal provisions for employee stock ownership plans (ESOPs)*	6.4
17	Repeal section 48 investment energy credit*	5.3
18	Repeal expensing of timber-growing and reforestation expenses	4.8
19	Repeal special deduction for Blue Cross and Blue Shield companies*	4.8
20	Repeal rules for recovery zone economic development bonds (QZABs, QSCBs, and tribal economic development bonds)	3.3
21	Inventory Method and Valuation: Repeal lower of cost or market*	2.9
22	Repeal deduction for charitable contributions of corporations	2.8
23	Repeal credit for electricity production from renewable resources (section 45)*	2.7
24	Repeal expensing of soil and water conservation expenditures, costs of raising dairy and breeding cattle, and costs of fertilizer and soil conditioner	1.9
25	Increase geological and small integrated geophysical amortization period for independent producers to seven years*	1.5
26	Amortization of air pollution control facilities*	1.3
27	Repeal percentage depletion for coal and hard mineral fossil fuels*	1.3
28	Repeal credit for plug-in electric vehicles	1.1
29	Excess of percentage over cost depletion, nonfuel minerals*	1.0
30	Impose full tax on nuclear decommissioning reserve funds*	1.0
31	Repeal exclusion for cancellation of indebtedness income of farmers	1.0
32	Repeal small life insurance company taxable income adjustment	1.0
33	Repeal expensing of exploration and development costs, nonfuel minerals*	1.0

\* Estimates derived from available JCT estimates.