

How Will Alternative Tax Reform Plans Impact Business Investment Incentives?

A Special Report by the American Council for Capital Formation

*As the debate about how to reform the federal tax code continues, the ACCF presents this Special Report summarizing the finding of a new ACCF/ Ernst & Young report analyzing how two alternative reform plans will impact the cost of capital for new investment in the U.S.**

Introduction

In recent years, reforming the federal tax code has been an important goal for the business community, the Obama Administration and Congress. The Administration and prominent members of Congress have advanced the objective of lowering the corporate income tax rate and financing the lower rate by broadening the tax base. The fact that the top statutory U.S. corporate tax rate (35 percent) is higher than most of our international competitors, the complexity of the tax code and the fact that many other countries do not tax their companies' foreign source earnings are key reasons for the interest in reform. However, the structure of the tax reform plan will have a profound impact on business incentives to invest, thus impacting job and GDP growth in the U.S. Recent Congressional tax reform proposals – such as those offered by former Senate Finance Committee Chairman Max Baucus, by Senators Ron Wyden and Dan Coats and by House Ways and Means Committee Chairman Dave Camp – share the basic architecture of the National Commission on Fiscal Responsibility (Bowles/

Simpson plan) examined here while lowering income tax rates on business they also eliminate provisions important to many industries. These eliminated provisions include accelerated depreciation, the domestic production deduction (Section 199), LIFO and others. Since over the last three decades, each \$1 billion in investment in the U.S. is associated with almost 20,000 new jobs, the loss of key tax code provisions that impact the cost of capital for new investment could have profound implications for the U.S. economy. Given the slow recovery from the 2007 recession, policymakers need to understand the likely consequences for new investment of alternative tax reform plans.

Comparison of the Tax Reform Plans

This ACCF/E&Y report analyzes the impact of two tax reform plans on investment incentives: 1) the Fiscal Commission plan released in December

The American Council for Capital Formation (ACCF) is a nonprofit, nonpartisan organization advocating tax, energy and regulatory policies that facilitate saving and investment, economic growth and jobs creation. For copies of this special report, please contact the ACCF, 1750 K Street, N.W., Suite 400, Washington D.C. 20006-2302; telephone: 202.293.5811; email: info@accf.org; www.accf.org.

*For the full report, see http://accf.org/wp-content/uploads/2014/04/ACCF-White-Paper_d10.pdf.

2010 and 2) the Growth and Investment Plan (GIT) as proposed by the 2005 President's Advisory Panel on Federal Tax Reform. The approach of the Fiscal Commission plan is to finance lower income tax rates through base broadening. The GIT plan would achieve somewhat less reduction in income tax rates, but would allow businesses to write-off (i.e., expense) new business investment, remove interest from the business tax base, and reduce investor-level taxes on dividends, capital gains, and interest (see Table 1 for a side-by-side comparison). The immediate deductibility of investment encourages investment by removing the tax from an economically important part of an investment's return.

The Cost of Capital

The cost of capital for new investment is one way to measure investment incentives. In the ACCF/E&Y study, the cost of capital is measured as the real pre-tax rate of return that a barely profitable investment needs to earn to both cover taxes over its life and provide investors their required after-tax rate of return. This measure is commonly used to evaluate investment incentives by source of finance, industry, asset type, and the overall level of investment.¹ Empirical research has found both the level and allocation of investment to be sensitive to its tax treatment.² The literature suggests that a 10% increase in the cost of capital would result in a 5% to 10% decrease in investment and vice-versa. The report presents the results for the cost of capital by sector, industry, and major asset type.

While the cost of capital reflects the potential impact of tax reform on investment incentives, changes in the relative cost of capital by sector, industry, and major asset type as well as a lower corporate income tax rate can have other economic benefits. These include efficiency gains from more even treatment across a number of different types of investment (e.g., sector, asset type, source of finance), increased investment in certain types of capital that respond to not only the tax at the margin but the total tax

(e.g., firm-specific assets, intangibles), and an expanded corporate tax base due to the reduction in taxable income shifting and tax planning.

Impact of the Fiscal Commission and Growth and Investment Plans on the Cost of Capital

Impact by Business Sector and by Asset Type

The current income tax results in uneven treatment of investment that can affect a number of business decisions: 1) the mixture of debt and equity when financing investments, 2) whether to organize as a corporate or pass-thru business, 3) a firm's dividend policy, and 4) what assortment of asset types to purchase. Independent of the impact on capital accumulation, a decrease in tax-induced distortions on these decisions would improve the allocation of capital within the economy.

A common metric for the neutrality of the tax system with respect to new investment is the standard deviation in the cost of capital.³ If the tax system treated all investment neutrally, then all investments would have the same cost of capital and, as a result, the standard deviation in the cost of capital would equal zero. An increase in the standard deviation in the cost of capital would likely result in efficiency losses for the U.S. economy, and a decrease in the standard deviation in the cost of capital would likely result in efficiency gains for the U.S. economy. Under current law, the standard deviation in the cost of capital is estimated to be 1.5%. As shown in Table 2, the Fiscal Commission plan reduces the standard deviation by 5% while the GIT plan reduces it by 36%.

The Fiscal Commission plan increases the cost of capital on new investment by 3% for the overall business sector (pass-thru and corporate) and raises it by 5% for the corporate sector. This

1 For example, see Congressional Budget Office, *Taxing Capital Income: Effective Rates and Approaches to Reform*, October 2005; US Department of the Treasury, *Treasury Conference on Business Taxation and Global Competitiveness: Background Paper*, July 2007; and A Joint Report by the White House and the Department of the Treasury, *The President's Framework for Business Tax Reform*, February 2012.

2 For a review of the literature, see Kevin Hassett and Glenn Hubbard, (2002), "Tax policy and business investment" in M. Feldstein and A. Auerbach (eds.), *Handbook of Public Economics*, Vol. 3, Elsevier North Holland, pp. 1293-1343.

3 The standard deviation is defined as the square root of the variance. For uses of this metric, see Don Fullerton, (1987), "The Indexation of Interest, Depreciation, and Capital Gains and Tax Reform in the United States," *Journal of Public Economics*, 32(1), pp. 25-51; Don Fullerton and Yolanda Kodrzycki Henderson, (1989), "A Disaggregate Equilibrium Model of the Tax Distortions among Assets, Sectors, and Industries," *International Economic Review*, 30(2), pp. 391-413; and US Department of the Treasury, *Report to the Congress on Depreciation Recovery Periods and Methods*, July 2000.

increase reflects the net effect of the lower tax rates and broadening of the tax base. The cost of capital for equipment (5.3% and 4.8% in corporate and pass-thru sectors, respectively) increases significantly (6.2% and 5.4% in corporate and pass-thru sectors, respectively) reflecting the effect of repealing accelerated depreciation under the Fiscal Commission plan. For structures, there is a small increase in the cost of capital for the corporate sector (5.5% to 5.6%) and a small decrease in the cost of capital for the pass-thru sector (5.1% to 5.0%). This reflects the modesty of the base broadening relative to the benefit of the lower tax rates under the Fiscal Commission plan.

While the Fiscal Commission plan increases the cost of capital somewhat in the business sector, the GIT plan results in a large reduction in the cost of capital from 5.4% to 4.3% – a 21% decrease. This decrease in the cost of capital under the GIT is the result of the immediate deductibility of all new investment of equipment, structures, inventories, land, and intangibles combined with the low individual-level tax rates on capital income. This large decrease in the cost of capital can be expected to have a significant positive impact on investment and capital accumulation.

In addition, the GIT plan reduces the cost of capital to a near-uniform level across the major asset types. In the corporate sector, the overall reduction in the cost of capital is 21% (5.6% to 4.4%). The reduction in cost of capital is 37% for corporate inventories (7.2% to 4.5%), 29% for corporate land (5.9% to 4.2%), 19% for corporate structures (5.5% to 4.4%), 17% for corporate equipment (5.3% to 4.4%), and 9% for corporate intangibles (4.9% to 4.5%).

Impacts by Industry

The base broadening of the Fiscal Commission plan results in a significant increase in the cost of capital for the major capital-intensive industries. In the corporate and pass-thru sectors, the cost of capital increases by 9% and 4% respectively for the mining, quarrying and oil and gas extraction sector, for utilities by 10% and 11%, for manufacturing by 9% and 5% (see Tables 3 and 4). Nondurable goods manufacturing, including petroleum manufacturing, chemical manufacturing and petroleum refining, all show increases

in the cost of capital. Similarly, construction, transportation and warehousing, services and information all experience higher capital costs under the Fiscal Commission plan.

In contrast, under the GIT plan, the cost of capital for most corporate and pass-thru industries declines sharply. For the mining, quarrying and oil and gas extraction sector, the cost of capital declines by 18% and 15% respectively, for manufacturing by 21% and 19%, for nondurable manufacturing including petroleum manufacturing, chemical manufacturing and petroleum refining by 18% and 17% (see Tables 3 and 4). All other industries also show reductions in the cost of capital under GIT.

These reductions in the cost of capital under the GIT plan are driven primarily by the immediate write-off of all new investment, the repeal of industry-specific tax provisions, and mitigation of the bias against equity-financed investment, as well as the somewhat lower tax rates. The tax-induced distortion between the corporate and pass-thru sectors is largely a result of the 15% tax on dividends, capital gains, and interest income in the GIT plan that retains – albeit reduced from current law – the double tax on corporate profits.

Conclusion

Overall, the ACCF/E&Y analysis finds that the cost of capital for new investment in the business sector would increase from 5.4% to 5.6% (a 3% increase) under the Fiscal Commission plan, while decreasing to 4.3% under the GIT plan (a 21% reduction compared to current law). It also finds that the standard deviation in the cost of capital – used in this analysis as a measure of the extent by which the tax plans result in the more even treatment of investment – decreases from 1.5% under current law to 1.4% under the Fiscal Commission plan and to 1.0% under the GIT plan. These findings suggest that under both plans, a more neutral tax code for business investment would exist than under current law.⁴ However, some previous research suggests that allowing all new investment to be deducted immediately under the GIT plan could have a stronger impact on US investment and output than a base broadening, rate reducing plan that achieved a similar amount

⁴ Both tax plans also include significant changes to the individual income tax. For example, the top individual income tax rate under the Fiscal Commission and the GIT plans were also lowered to 28% and 30%, respectively. Both plans also included significant changes to the individual income tax base.

of rate reduction.⁵ Academic studies suggest that a 10% increase in the cost of capital would result in a 5% to 10% decrease in investment and vice-versa.

It is widely recognized that business taxation in the United States is in need of reform. The Obama Administration and prominent members of Congress have promoted a goal of tax rate reductions financed through a broadening of the tax base. Understanding the impact of potential tax reform proposals on investment incentives – both on the overall level of tax on the marginal investment and the variation across investment types – is an important step to gauging their potential economic impacts.

5 Robert Carroll, John Diamond, Craig Johnson and James Mackie III, "A Summary of the Dynamic Analysis of the Tax Reform Options Prepared for the President's Advisory Panel on Federal Tax Reform," U.S. Department of the Treasury, Office of Tax Analysis, May 25, 2006.

Table 1. Comparison of major tax provisions under current law, the GIT plan, and of the Fiscal Commission plan included in analysis

	CURRENT LAW	GIT PLAN	FISCAL COMMISSION PLAN
Tax rates			
Top statutory corporate income tax rate	35%	30%	28%
Noncorporate business income tax rate	10%, 15%, 25%, 28%, 33%, 35%, 39.6%	30% ¹	12%, 22%, 28%
Dividend income tax rate	0%, 15%, 20%	15%	12%, 22%, 28%
Capital gains tax rate	0%, 15%, 20%	15%	12%, 22%, 28%
Interest income tax rate	10%, 15%, 25%, 28%, 33%, 35%, 39.6%	15%	12%, 22%, 28%
Medicare surtax on investment income	3.8%	3.8%	3.8%
Itemized deduction limitation (Pease)	3% of adjusted gross income (AGI) exceeding threshold	Repealed	Repealed
General provisions			
Cost recovery system	MACRS	New investment immediately deductible	Replace MACRS with Baucus Capital Cost Recovery System ²
Deductibility of interest expenses	Immediately deductible	Repealed (except for finance institutions)	Immediately deductible
Advertising expenditures	Immediately deductible	Immediately deductible	50% amortized over five years
Domestic production deduction	9% of qualified production activities income ³	Repealed	Repealed
LIFO inventory accounting	LIFO inventory accounting allowed	New investment immediately deductible	Repealed (i.e., limited to FIFO)
Extraction provisions			
Geological and geophysical costs	Amortize over two or seven years ⁴	New investment immediately deductible	Amortize over five years
Intangible drilling costs	Immediately deductible ⁵	New investment immediately deductible	Amortize over five years
Percentage depletion	Deduct percentage of revenue	New investment immediately deductible	Repealed; apply cost depletion
Research provisions			
R&E expensing	Immediately deductible	New investment immediately deductible	Amortize over five years
R&E tax credit	Expired	Repealed	Repealed

¹ Sole proprietorships would be taxed at individual income tax rates.

² The Fiscal Commission plan includes the replacement of the MACRS with economic depreciation. In this analysis, MACRS is modeled as being replaced with the cost recovery system proposed in the staff

discussion draft released by former Senate Finance Committee Chairman Max Baucus (D-MT) in November 2013.

³ This is restricted to 6% for the oil and gas industry.

⁴ Independent producers and smaller integrated companies amortize over two years and larger integrated companies amortize over seven years.

⁵ Integrated oil companies are required to amortize 30% of the intangible drilling costs on productive wells over five years.

Table 2. Cost of capital by sector and major asset type under current law, the Fiscal Commission plan and the GIT plan

	CURRENT LAW	FISCAL COMMISSION PLAN		GIT PLAN	
	Cost of capital	Cost of capital	Percent change	Cost of capital	Percent change
Business sector	5.4%	5.6%	3%	4.3%	-21%
Standard deviation in cost of capital	1.5%	1.4%	-5%	1.0%	-36%
Corporate sector	5.6%	5.8%	5%	4.4%	-21%
Equipment	5.3%	6.2%	17%	4.4%	-17%
Structures	5.5%	5.6%	3%	4.4%	-19%
Inventories	7.2%	6.9%	-5%	4.5%	-37%
Land	5.9%	5.6%	-5%	4.2%	-29%
Intangibles	4.9%	5.7%	16%	4.5%	-9%
Pass-thru sector	5.1%	5.1%	-1%	4.1%	-20%
Equipment	4.8%	5.4%	14%	4.1%	-14%
Structures	5.1%	5.0%	-3%	4.1%	-19%
Inventories	6.6%	5.9%	-10%	4.1%	-37%
Land	5.4%	5.0%	-8%	4.1%	-25%
Intangibles	4.6%	5.1%	10%	4.1%	-10%

Note: The business sector is defined as all non-farm US businesses. Structures, in addition to buildings, include assets such as mine shafts, petroleum pipelines, and railroad tracks. The intangibles included in this analysis are software, scientific research and development, artistic originals, and advertising.

Source: EY analysis.

Table 3. Cost of capital by industry in the corporate sector under current law, the Fiscal Commission plan, and the GIT plan

	CURRENT LAW	FISCAL COMMISSION PLAN ¹		GIT PLAN	
	Cost of capital	Cost of capital	Percent change	Cost of capital	Percent change
Corporate sector²	5.6%	5.8%	5%	4.4%	-21%
Mining, quarrying, and oil and gas extraction	5.5%	6.0%	9%	4.5%	-18%
Oil and gas extraction	5.4%	5.9%	10%	4.5%	-16%
Utilities	4.6%	5.2%	13%	4.5%	-2%
Construction	6.7%	6.7%	0%	4.5%	-33%
Manufacturing	5.7%	6.3%	9%	4.5%	-21%
Durable goods manufacturing	5.9%	6.5%	9%	4.5%	-24%
Nondurable goods manufacturing	5.5%	6.1%	10%	4.5%	-18%
Petroleum and coal products manufacturing	6.6%	6.8%	3%	4.5%	-32%
Chemical manufacturing (excl. petrochemical refining)	5.0%	5.8%	14%	4.5%	-10%
Petrochemical refining	6.0%	6.3%	5%	4.5%	-24%
Wholesale trade	6.7%	6.6%	-1%	4.5%	-32%
Retail trade	6.7%	6.5%	-2%	4.5%	-32%
Transportation and warehousing	5.3%	5.8%	10%	4.5%	-14%
Information	5.3%	5.7%	7%	4.5%	-15%
Finance, insurance, real estate, and rental and leasing	5.3%	5.4%	0%	3.6%	-32%
Services	5.3%	5.4%	2%	4.5%	-14%

¹ The Fiscal Commission tax plan includes the repeal of the Modified Accelerated Cost Recovery System (MACRS). In this analysis, MACRS is modeled as being replaced with the cost recovery system proposed in the staff discussion draft released by former Senate Finance Committee Chairman Max Baucus (D-MT) in November 2013.

² The corporate sector includes all non-farm US corporate businesses except for S corporations, which are included in the noncorporate sector.

Source: EY analysis.

Table 4. Cost of capital by industry in the pass-thru sector under current law, the Fiscal Commission plan, and the GIT

	CURRENT LAW	FISCAL COMMISSION PLAN ¹		GIT PLAN	
	Cost of capital	Cost of capital	Percent change	Cost of capital	Percent change
Pass-thru sector²	5.1%	5.1%	-1%	4.1%	-20%
Mining, quarrying, and oil and gas extraction	4.8%	5.0%	5%	4.1%	-15%
Oil and gas extraction	4.6%	4.9%	6%	4.1%	-12%
Utilities	4.3%	4.8%	11%	4.3%	0%
Construction	5.9%	5.6%	-5%	4.1%	-31%
Manufacturing	5.1%	5.4%	5%	4.2%	-19%
Durable goods manufacturing	5.2%	5.4%	4%	4.2%	-20%
Nondurable goods manufacturing	5.0%	5.3%	5%	4.2%	-17%
Petroleum and coal products manufacturing	5.7%	5.7%	-1%	4.1%	-29%
Chemical manufacturing (excl. petrochemical refining)	4.4%	4.9%	11%	4.1%	-6%
Petrochemical refining	5.3%	5.4%	2%	4.1%	-22%
Wholesale trade	5.9%	5.6%	-5%	4.1%	-31%
Retail trade	5.9%	5.5%	-7%	4.1%	-31%
Transportation and warehousing	4.7%	5.1%	7%	4.2%	-12%
Information	4.7%	4.9%	4%	4.1%	-12%
Finance, insurance, real estate, and rental and leasing	5.2%	5.0%	-3%	4.0%	-22%
Services	5.0%	4.9%	0%	4.3%	-14%

¹ The Fiscal Commission tax plan includes the repeal of the Modified Accelerated Cost Recovery System (MACRS). In this analysis, MACRS is modeled as being replaced with the cost recovery system proposed in the staff discussion draft released by former Senate Finance Committee Chairman Max Baucus (D-MT) in November 2013.

² The noncorporate sector includes all non-farm US noncorporate businesses, as well as S corporations.

Source: EY analysis.