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How the Taxation of Capital Affects Growth and Employment

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The views expressed in this testimony are those of the author alone and do not necessarily represent the views of the American Enterprise Institute.

Chairman Casey, Vice Chairman Brady, and Members of the Committee, thank you for inviting me to appear today to discuss how the taxation of capital affects the economy.

I. How do we tax capital?

This nation employs several methods for taxing capital income, both at the individual and the corporate level. There is a massive economic literature that documents strong theoretical and empirical support for the United States to reduce its capital taxes. The consensus amongst economists on these issues has had a hit-and-miss record driving political consensus. There has been a strong bipartisan consensus regarding capital gains taxes, which were cut dramatically by Jimmy Carter in 1978, and again by Bill Clinton in 1997. Dividend taxes are also currently low, having been extended on a bipartisan basis in 2010. There has been less of a political consensus regarding the corporate tax, and the U.S.'s current status as the highest tax country in the developed world is likely the most pressing tax policy issue of the day.

The corporate income tax has been levied on a permanent basis in the United States since 1909, when it was introduced at the rate of 1 percent. About one hundred years later, the U.S. federal tax rate for most corporations is 35 percent, and state taxes on average add another 4.2 percent tax. With a 39.2 percent combined corporate tax rate, we earned the honor of highest tax rate in the developed world on April 1st when Japan lowered its rate from 39.5 to 38 percent. With its action, Japan has been following a wave of reforms that began in the mid to late 1980s but has continued in the 1990s and through the 2000s. In fact, the OECD average fell almost 9 percent in the first decade of the 21st century. Overall, top combined statutory rates amongst OECD countries have fallen from an average of about 48 percent in the early 1980s to a little over 25 percent in 2011.¹

In addition to the corporate income tax, the United States also taxes dividends paid out to shareholders and capital gains at the individual level. This extra layer of capital taxation increases the overall effective tax rate that burdens new investment. On the other hand, depreciation and expensing provisions lower the effective tax rates on business income, and numerous loopholes and other tax expenditures lower the rate for industries that happen to be favored in Washington.

When economists seek to derive the net impact of all of these features, they often focus on effective tax rates. There are two commonly accepted measures of effective tax rates: the effective average tax rate (EATR) and the effective marginal tax rate (EMTR). The EATR

¹ "OECD Tax Database," <http://www.oecd.org/ctp/taxdatabase>.

summarizes the distribution of tax rates for an investment project over the range of possible profitability levels. The EATR computes, simply, a firm's tax liability as a fraction of pre-tax economic profits in a particular country. This rate differs from the statutory rate because it reflects the lower rate that the firm actually pays once the other features of the tax code such as depreciation allowances or interest rate deductions are accounted for. The other measure, the EMTR, applies to marginal investment projects where the last unit invested provides just enough pre-tax return to cause the project to break even after-taxes. In other words, the marginal investment equates the net present value of the income stream to the net present value of the investment costs.

Many have argued that even though the statutory corporate tax rate is extremely high, the significant number of loopholes in our tax code allows firms to escape much of the apparent burden. In truth, the U.S. does not rank much better, compared to other OECD countries, when looking at effective rates than when looking at statutory rates. In a 2011 study with my AEI colleague Aparna Mathur, I computed the EATR and EMTR for corporations in the OECD countries, and our results suggest that the effective rates have followed the same disappointing trend as the statutory rate.² While in 1996 the U.S. EATR was slightly below the OECD average, 29.2 versus 30.2, the OECD average excluding the United States has fallen to 20.5 percent in 2010 while the U.S. EATR remained largely constant – in 2010 it was 29 percent. The United States fares slightly better when looking at the EMTR, but remains above the average. In 2010, the U.S. EMTR was 23.6 percent, compared to the non-US OECD average of 17.3 percent.³

The high rates of taxation on capital income in the United States stand in marked contrast not only to the policies of our trade partners, but also to the implications of optimal tax theory in the economics literature. Over the past three decades, numerous studies — including Judd (1985, 1999)⁴; Chamley (1985, 1986)⁵; Lucas (1990)⁶; Bull (1993)⁷; Chari, Christiano, and Kehoe

² Kevin A. Hassett and Aparna Mathur, *Report Card on Effective Corporate Tax Rates: United States Gets an F*, Tax Policy Outlook No. 1 (Washington, DC: American Enterprise Institute, February 2011), <http://www.aei.org/docLib/TPO-2011-01-g.pdf>.

³ Ibid.

⁴ Kenneth Judd, "Redistributive Taxation in a Simple Perfect Foresight Model." *Journal of Public Economics* 28, no. 1 (1985): 59-83; Kenneth L. Judd, "Optimal Taxation and Spending in General Competitive Growth Models," *Journal of Public Economics* 71 (1999): 1-26.

⁵ Christophe Chamley, "Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives," *Econometrica* 54, no. 3 (1986): 607-22. Christophe Chamley. "Efficient Taxation in a Stylized Model of Intertemporal General Equilibrium," *International Economic Review*, vol. 26(2) (1985): 451-68.

⁶ R.E. Lucas, "Supply-Side Economics: An Analytical Review," *Oxford Economic Papers* 42 (1990): 293-316

⁷ Nick Bull, "When All the Optimal Dynamic Taxes Are Zero," *Working paper, Federal Reserve Board of Governors* (1993)

(1994)⁸; and Jones, Manuelli, and Rossi (1993, 1997)⁹ — have concluded that an optimal tax system in most cases will not include a tax on capital.

A chapter by Kenneth Judd in a volume edited by Glenn Hubbard and myself provides a useful explanation for these results.¹⁰ A capital tax introduces a distortion into the return on saving and investment, a distortion that “explodes” over time. Even a small capital tax will not be optimal because the damage it causes will eventually grow without bound. The intuition of this result is quite straightforward. Recall that an efficient tax system will cause individuals to change their behavior as little as possible. A huge tax on apples and a small tax on oranges would cause an enormous shift away from apples and toward oranges. A small uniform tax on both would not. Think of consumption today as being represented by apples and consumption ten years from now as oranges. If you give up an apple today, you get a number of oranges ten years from now that depends on the interest you got on the money you saved after not eating the apple. At 10 percent interest, a dollar saved today becomes \$2.60 ten years from now. If we tax that interest at 50 percent, a dollar saved today only yields \$1.63 ten years from now. Clearly, a tax on interest can have a very large effect on how much money you have ten years from now, a very big effect on the rate at which you can trade apples today for oranges tomorrow. Indeed, this distortion grows bigger and bigger over time because of compounding. One dollar saved today produces \$17.45 thirty years from now at 10 percent interest. If the interest is taxed at 50 percent, then a dollar saved yields only \$4.32 over the same time period.

Since it is not efficient for the tax system to create dramatic changes in the relative prices, it cannot be efficient to rely on a device that produces a distortion that worsens steadily over time. This is why a consumption tax has been found to be optimal.

This optimality is society wide, and not just a result that focuses on the welfare of those fortunate to have capital. A 2001 study by Greg Mankiw of Harvard University also supports the argument that the wealthy are not the only ones who benefit from corporate tax reform.¹¹ He developed an interesting model that shows the surprising robustness of the theoretical result. In Mankiw’s model there are two distinct types of agents: workers and capitalists. Capitalists chose the capital stock in order to maximize profits; workers supply labor and are

⁸ V.V. Chari, L.J. Christiano, and P.J. Kehoe, “Optimal Fiscal Policy in a Business Cycle Model,” *Journal of Political Economy* 102 (1994): 617-52.

⁹ Larry E. Jones, Rodolfo E. Manuelli and Peter E. Rossi, *Journal of Political Economy*, Vol. 101, No. 3 (Jun., 1993), pp. 485-517. Jones, L.E., R.E. Manuelli, and P.E. Rossi, “On the Optimal Taxation of Capital Income.,” *Journal of Economic Theory* 73 (1997): 93-117.

¹⁰ Judd, K.L. (2001), “The Impact of Tax Reform in Modern Dynamic Economics,” in K.A. Hassett and R.G. Hubbard, eds., *Transition Costs of Fundamental Tax Reform*.

¹¹ Mankiw, N. Gregory (2001). “Commentary: Balanced-Budget Restraint in Taxing Income From Wealth in the Ramsey Model.” In *Inequality and Tax Policy*, edited by K. A. Hassett and R. G. Hubbard. Washington, DC: AEI.

paid according to their productivity, which depends in part on how much capital they have to work with. In Mankiw's model there can be a tax on capital and a tax on labor. Because workers outnumber capitalists, and the hypothesized economy is a democracy, workers effectively get to dictate the tax on capital and labor to maximize their own welfare. Mankiw shows that even in this context, workers would rationally choose to set the capital tax to zero. The intuition here is that workers are better off — their wages are higher — when the capital stock is higher, which makes workers more productive and flows through to wages.

There are several other deviations from efficient design in our current system that warrant mentioning.

First, the double taxation of corporate income discourages investment in equipment and structures. The dividend tax raises the cost of funds to firms, increasing the hurdle rate for new projects. The accompanying reduction in capital spending reduces economic growth and interferes with the creation of new jobs.

Second, the asymmetric treatment of debt and equity encourages heavy debt loads and increases the overall level of risk in the corporate sector. Firms that borrow to finance investments are allowed under current law to deduct interest payments associated with that debt. Dividend payments are not deductible. This encourages firms to use debt finance whenever possible. When firms have large debt loads, they are much more likely to enter bankruptcy during difficult times.

Finally, the relatively unfavorable position of the U.S. relative to the rest of the world is a significant competitive disadvantage. The harm caused from suboptimal taxation is magnified significantly when capital is mobile, and alternatives to location in the U.S. exist. The idea that high capital income taxes can be harmful to economies has received a fairly broad acceptance among our trading partners. As I discussed earlier, only the United States has lagged behind.

These data should provide food-for-thought for those who would contend that the reduction in double taxation disproportionately benefits the wealthy. If that were true, why do Scandinavian countries with historically strong social welfare objectives tax corporate capital at a lower rate than ours? The answer is simple. High tax rates encourage firms to locate elsewhere. When this occurs, shareholders may come out ahead, but workers will not. The best policy for a country is to make itself as attractive as possible to capital. If it does succeed in keeping its own capital at home and luring foreign capital in large quantities, everyone will benefit. Workers will have higher wages, government will receive higher tax revenues, and investors will reap higher returns. The U.S. is one of the few countries in the world not to have recognized this.

In both practice and theory, the United States' tax code is not optimal. The real questions are what can be done about it, and how big would the benefits of reform be? In the next sections, I briefly discuss a number of options.

II. Comprehensive tax reform

There are two primary problems with our tax code. The first is the needless complexity, in the form of hundreds of credits and cutouts for different types of people or activities. The second is the bias against saving inherent in an income tax system that taxes capital incorrectly, as described above. Economists generally agree that each of these issues limit economic growth. To solve both requires fundamental tax reform.

The best solution is to move from our income tax system to a system that taxes consumption. Research concerning the economic effects of a tax reform that moves in the direction of a consumption tax exploded in the 1970s and 80s and has continued to this day. As I mentioned above, a key early and striking result of this literature is that, in the long run, an efficient tax system must not tax capital income.

Economic models of increasing sophistication have attempted to predict the impact on the American economy of a wholesale change to a consumption tax. Some of these models find the gain from a switch to a consumption tax to be enormous. For example, Larry Summers, President Obama's first director of the National Economic Council, wrote in 1981, "The results suggest that the elimination of capital income taxation would have very substantial economic effects. For example, a complete shift to consumption taxation might raise steady-state output by as much as 18 percent and consumption by 16 percent."¹² These large gains occur because an income tax discourages capital formation, and the increase in capital formation leads to a higher level of economic growth for some length of time.

Summers' paper was one of the first glimpses of this result, and it is an outlier in retrospect. Models of increasing complexity today generally find effects smaller than that. Nonetheless, economists have consistently found large positive output effects from fundamental tax reform. A survey of 69 public finance economists conducted by Victor Fuchs, Alan Krueger, and James Poterba (1998) found that, at the median, respondents believed that the 1986 tax reform

¹² Lawrence H. Summers, "Capital Taxation and Accumulation in a Life-Cycle Growth Model." *American Economic Review* 71 (September 1981): 533-44.

produced about one percentage point higher growth in the steady state.¹³ Pecorino (1994)¹⁴ estimated the hypothetical effect on the growth rate of replacing the 1985 US income tax structure with a consumption tax to be of the order of 1 percent per capita per year. Over the course of several years, this result would closely correspond with the estimates found in other studies which mostly focus on long-run increases in output. An OECD study by Arnold (2008) provides an empirical analysis of the effect of the tax structure on long-run GDP. The main findings include “Property taxes, and particularly recurrent taxes on immovable property, seem to be the most growth-friendly, followed by consumption taxes and then by personal income taxes. Corporate income taxes appear to have the most negative effect on GDP per capita.”¹⁵ This intuition is supported by the review of the literature that I conducted with University of Berkeley economist Alan Auerbach in 2005, which suggested that a transition to an ideal system might increase economic output between 5 and 10 percent.¹⁶

This allows us to estimate what our fiscal situation might be today if the United States had implemented a fundamental tax reform ten years ago, and we had achieved the high end growth estimate of a 10 percent long run improvement. GDP would be \$17.1 trillion in fiscal year 2012 rather than the expected \$15.5 trillion under CBO projections. Moreover, if we assume that revenues stay fixed as a percent of GDP and outlays stay fixed in dollar terms, then the 2012 deficit would be -\$830.4 billion rather than the expected -\$1.1 trillion under the CBO alternative fiscal scenario. The long run budget deficit would also be substantially improved, with accumulated deficits of \$7 trillion from 2013 to 2022 rather than the expected \$11 trillion. This illustration suggests that the stakes are very large indeed.

III. Distributional Issues

While the literature is unanimous in finding that a consumption tax would boost output, it is important to consider whether reform might affect distributional equity. Advocates of consumption taxation have made significant adjustments and improvements to consumption tax models in response to this concern. For example, under a value-added tax (VAT)—one pure form of a consumption tax—a firm pays tax on the difference between its total revenue and the

¹³ Victor R. Fuchs, Alan B. Krueger and James M. Poterba, “Economists’s Views about Parameters, Values and Policies: Survey Results in Labor and Public Economics.” *Journal of Economic Literature*, Vol. 36, No. 3 (Sep., 1998), pp. 1387-1425

¹⁴ Pecorino, Paul. "The Growth Rate Effects of Tax Reform." *Oxford Economic Papers* 46, no. 3 (1994): 492-501.

¹⁵ Jens Arnold, “Do tax structures affect aggregate economic growth? Empirical evidence from a panel of OECD countries”, *OECD Economics Department Working Paper* 643, 2008.

¹⁶ Auerbach, Alan J. and Kevin A. Hassett, ed. *Toward Fundamental Tax Reform*. Washington DC: The AEI Press, 2005.

cash it has paid to other businesses. Firms are not allowed to deduct wages paid before calculating their tax. But under the VAT, everyone pays the same tax rate regardless of income.¹⁷ Hall and Rabushka (1995) noted that one could modify the VAT to maintain the economic benefit while maintaining the tax code's current redistributive role. Their "flat tax" is a two-part VAT that allows firms to deduct wages before calculating their tax, but workers must pay tax on the wages that they receive at the same rate faced by the corporation. Under the flat tax model, income up to a set amount would be excluded from the wage tax--making the flat tax somewhat progressive.¹⁸

David Bradford took this logic one step further in the development of his X-tax. He, too, passed the responsibility for paying taxes on wages on to the workers, and then taxed their wages using a graduated rate system. In principle, such an approach could allow for any possible level of redistribution, substantially weakening the logical basis of opposition to a consumption tax on social-justice grounds.¹⁹

A 2001 paper by Altig, Auerbach, Kotlikoff, Smetters and Walliser explored the degree to which this redistributive twist compromised the economic effects of a consumption tax.²⁰ Their research expanded a model that has been often relied upon in the past to allow them to estimate the impact of tax reform on individuals in twelve different income classes. They simulated a variety of different approaches to tax reform, including a proportional income tax, a proportional consumption tax, a standard flat tax, a flat tax with transition relief and the X-tax. In line with critics' conclusions, some tax reforms, notably the flat tax, increased overall long-run welfare at the expense of the poor. However, their model found that the X-tax increased aggregate long-run consumption by 7.5 percent while also to increasing long-run welfare for individuals in every income class.²¹

Thus, the latest research suggests it is possible to reproduce the positive benefits of consumption tax reform in a manner that should be unobjectionable from the redistributive perspective. But the apparent long-run benefits of a carefully crafted system leave very complex transition issues still to be addressed.

¹⁷ It is possible to add progressivity to a VAT by narrowing the base; however, this creates inefficiency.

¹⁸ Robert E. Hall and Alvin Rabushka, *The Flat Tax: Updated Revised Edition (HOOVER INST PRESS PUBLICATION)*, Second Edition, Revised ed. (Hoover Institution Press, 1995)

¹⁹ Bradford, David F, "The X Tax in the World Economy." *CEPS Working Paper No. 93* (August 2003).

<http://www.princeton.edu/~ceps/workingpapers/93bradford.pdf>

²⁰ Altig, David, Alan J. Auerbach, Laurence J. Kotlikoff, Kent A. Smetters, and Jan Walliser. "Simulating Fundamental Tax Reform in the United States." *The American Economic Review* 91, no. 3 (2001): 574-595.

²¹ *Ibid.*

Because the X-tax remains relatively unfamiliar, my AEI colleague Alan Viard and Robert Carroll of Ernst & Young have set out to introduce the Bradford X-tax to the broader public in their forthcoming book which we can arrange to send to each member of this committee upon publication.²² Their book sets forth solutions to commonly perceived problems concerning the taxation of pensions and fringe benefits, business firms, financial intermediaries, international transactions, owner-occupied housing, state and local governments, and nonprofit institutions, and the transition. By adopting these proposed approaches, the United States can move to a progressive tax system that no longer penalizes saving and investment.

IV. Expensing

Much political courage is needed to propose and achieve fundamental tax reform, but there are other smaller compromise actions that can be taken to improve the current tax system. One of the main steps towards consumption taxation, without full-blown tax reform, is the implementation of permanent business expensing. In other words, allowing firms that purchase new machines and other capital goods to be able to write them off immediately, instead of over many years.

A well-developed body of research by economists confirms what businessmen will tell you if you ask: When the cost of capital is low, firms are much more likely to expand their capital stock. And full expensing can reduce the cost of capital significantly. Future deductions are not as valuable as current deductions because of the time value of money, and because these deductions are not indexed for inflation. Expensing gives firms the entire deduction up front, and with full expensing, the value of the deduction will exactly offset the present value return on the investment over its lifetime, so the effective marginal tax rate on investment will be zero.

Although much of the recent economic literature on expensing has focused on the merits of temporary provisions enacted as stimulus, there is wide agreement in the economics profession that permanent measures can have significant, long-run growth effects. In fact, many researchers agree that expensing provisions provide more growth per dollar of revenue foregone than reductions to other capital taxes because it offers tax benefits to new investment only, whereas corporate, dividends, or capital gains tax rate cuts benefit old capital as well. The Treasury Department, for example, estimates that cuts to the corporate, capital

²² Robert Carroll and Alan D. Viard. *Progressive Consumption Taxation: The X-Tax Revisited*. AEI Press. Forthcoming June 2012.

gains, or dividends rates are only about 60% as effective in terms of “bang-for-the-buck” investment growth as expensing provisions.²³

For a more thorough discussion of the benefits of expensing, I recommend a 2010 Center for American Progress/Brookings Institution paper by economist Alan Auerbach from UC Berkley;²⁴ a Treasury Department Background Paper on business taxation from 2007;²⁵ and the forthcoming book on the X-tax by Alan Viard and Robert Carroll, which I already mentioned. This reading list helps indicate the wide-spread support for permanent expensing provisions from several of the most respected tax economists in the country.

V. Dividend Taxes

Given that a sharp increase in the dividend tax may soon occur, I will focus this section on the literature describing what such an increase might do to the economy.

The literature on dividend tax policy and investment has had a rather contentious history. Theoretically speaking, it is possible to derive cases where dividend taxes have a large effect on investment, but other cases exist that are equally plausible that suggest that dividend taxes have a smaller effect. An early and path-breaking study by Poterba and Summers (1985) concluded, "our results suggest that dividend taxes reduce corporate investment and exacerbate distortions in the intersectoral and intertemporal allocation of capital".²⁶ A more recent study that I coauthored with Alan Auerbach of the University of California at Berkeley found evidence that supported somewhat smaller economic effects of dividend tax reductions (or increases).²⁷

The dividend tax reduction passed by President Bush in 2003 spurred a significant amount of academic work. The analysis of these tax cuts hinges on a critical assumption regarding the source of marginal equity finance. Under the “traditional” view, a firm’s marginal source of funds is new equity issues. Under this view, investment is responsive to dividend taxes. According to the “new” view, however, a firm’s marginal source of funds is retained earnings.

²³ U.S. Department of the Treasury, “Background Paper.” Paper presented in the Treasury Conference on Business Taxation and Global Competitiveness, U.S. Department of the Treasury, July 23, 2007.

²⁴ Auerbach, Alan J. A Modern Corporate Tax. DC: Hamilton Project/CAP, December 2010.

²⁵ U.S. Department of the Treasury, *supra* note 3.

²⁶ Poterba, J.M., and L.H. Summers, "The Economic Effects of Dividend Taxation", (1985) in E. Altman and M. Subrahmanyam, eds., *Recent Advances in Corporate Finance*, pp. 227-284.

²⁷ Auerbach, A.J., and K.A. Hassett (2003), "On the Marginal Source of Investment Funds," *Journal of Public Economics*, 87, pp. 205-232.

Firms issue new equity only once retained earnings are exhausted and thus the investment levels of mature firms not dependent on the new equity market are unresponsive to changes in dividend taxes. Under the new view, time invariant dividend taxes are capitalized into the value of the firm but do not affect investment.

Prior to the dividend tax proposal, research on this topic provided mixed evidence on the relative importance of the two views. The latest evidence suggests that firm level heterogeneity is important, and that some firms should be thought of as “new view” firms while others are better described by the “old view”. One paper (my 2003 study with Carroll and Mackie) at the time established the *ex ante* prediction of the user cost model.²⁸ We estimated that under the traditional view, the dividend tax changes reduced the marginal effective total tax rate by about 4 percentage points under their baseline assumptions, from 33.5 percent to 29.4 percent. Under the new view (and also accounting for the capital gains tax changes, which affect the user cost under both views), the reduction in the user cost was smaller, from 29.6 percent to 27.7 percent.²⁹

My early work with Auerbach, which relied on a sample that predates the dividend change, examined investment financing directly to determine the relevance of the different views and found considerable heterogeneity in their sample of firms, with capital market access an important factor in determining a firm’s likelihood of issuing new shares. Under the new view, the dividend is a residual and, they showed, should be negatively correlated with investment and positively correlated with cash flow once one controls for Tobin’s *Q*. We utilized this observation to test the validity of the two views and showed that the responsiveness of dividends to cash flow and investment varies significantly across publicly traded U.S. firms. We concluded that about half of firms that had paid dividends, and hence for whom the new view could potentially apply, seem to have dividend payout behavior consistent with the new view, while half appear to behave more consistently with the traditional view. This suggested at the time that perhaps half of this subset of firms would have relatively large investment responses to the change because they were governed by the old view, whereas the other half would have a relatively small response.³⁰

Desai and Goolsbee (2004) also found support for the new view, by looking at the effect of the dividend tax cuts on investment. In their analysis of the 2003 dividend tax cuts, Desai and Goolsbee take a novel approach by using firm-level investment data to distinguish between the

²⁸ Carroll, Robert, Kevin A. Hassett, and James B. Mackie III, “The Effect of Dividend Tax Relief on Investment Incentives.” *National Tax Journal* 56(3):629-651. (2003)

²⁹ Ibid.

³⁰ Auerbach, A.J., and K.A. Hassett (2003), “On the Marginal Source of Investment Funds,” *Journal of Public Economics*, 87, pp. 205-232.

traditional and new views of dividend taxation.³¹ They reestimated a variation of the Poterba and Summers (1985) model,³² and found strong confirmation that the new view best describes the data.³³ This user cost effect could have been expected, based on the investment literature, to have a modest positive effect on investment. In this case, however, the change also could be expected to influence the marginal incentive to pay a dividend, and, accordingly, a large literature has emerged to explore this implication.

In a 2005 study, Alan Auerbach and I found indirect evidence concerning the likely impact of the dividend change on the user cost of capital.³⁴ We examined the dividend response debate directly with an event study of the stock price response to news about the probability of dividend tax changes. We found that firms with higher dividend yields benefit more than other dividend-paying firms, which could support either the new or the traditional view, depending on whether firms believed the tax cut was temporary.³⁵ Additional evidence contradicting the traditional view came from the fact that non-dividend-paying firms and firms likely to issue new shares received a larger boost than other firms. Under the traditional view, such firms should not have experienced a larger reduction in the cost of capital, which would be related to the firm's dividend payout rate, a variable already controlled for in the regressions.

This pattern emerges because the tax cut increases the future after-tax value of dividends, which increases the value of the firm today if it is expected that the firm will pay dividends in the future and that the tax cut will last into the future. In addition, the present value of any future dividends is greater, which will increase the value of a firm that is expected to issue new shares in the future.

Auerbach and I also observed similar effects using research on the 2004 presidential race. In 2004, Senator Kerry vowed that he would let the dividend tax cut expire, whereas President Bush was committed to its extension. Accordingly, one might expect that the market would correlate the probability of a Kerry victory with the probability of a more temporary dividend tax reduction. We explored whether results consistent with the event study were also

³¹ Mihir A. Desai and Austan D. Goolsbee, "Investment, Overhang, and Tax Policy," *Brookings Papers on Economic Activity* 35, no. 2 (2004): 285-355.

³² Poterba, J.M., and L.H. Summers, "The Economic Effects of Dividend Taxation", (1985) in E. Altman and M. Subrahmanyam, eds., *Recent Advances in Corporate Finance*, pp. 227-284.

³³ Other studies have also implied that there are significantly more new view firms than might have been suggested by Poterba and Summers. Gentry, Kemsley, and Meyer (2003) exploit the unique tax characteristics of Real Estate Investment Trusts and find that dividend taxes are capitalized into share prices, lending support to the new view. Sialm (2005) uses time-series data from 1917 to 2004 and also finds evidence of tax capitalization.

³⁴ Auerbach, Alan J., and Kevin A. Hassett. 2005. "The 2003 Dividend Tax Cuts and the Value of the Firm: An Event Study." NBER Working Paper No. 11449. (July 2005).

³⁵ Ibid.

observable during the election by relating stock market performance to presidential futures. Our results confirmed the earlier event-study results, while shedding additional light on the dividend tax mechanism. In particular, under the new view, firms with high dividend yields should have outperformed other firms when the probability of repeal increased, because they will disgorge a higher percentage of their dividends in the low tax years. Under the traditional view, the lower dividend tax should reduce the cost of capital disproportionately for high dividend firms, giving them a value bonus that should increase with the permanence of the dividend tax cuts. The presidential futures results suggest that the bonus to paying high dividends *declined* when the dividend taxes were more likely to be permanently low (that is, when the probability of Kerry being elected declined), consistent with the new view.

A study by Amromin, Harrison, and Sharpe (2005) interpreted these results differently, arguing that the evidence supports the view that dividend taxes are irrelevant. In particular, they argued that share prices for non-dividend-paying firms and for those likely to issue new shares outperformed over the entire period, not just during the event days analyzed by Auerbach and me. In addition, Amromin and coauthors argued that the U.S. stock market did not outperform foreign markets during that period.³⁶

Auerbach and I extended our earlier work in 2006, which allowed us to respond to the comments of the Amromin study.³⁷ Our extension involved an analysis of options data around the 2004 election. When President Bush was elected, it likely conveyed a significant amount of information about the probability that dividend taxes would remain low in the future. Uncertainty about the outcome should have led to a high level of volatility prior to the election, especially for the firms that should have been most influenced by dividend taxes. If this intuition is correct, it would be visible in options prices, which are especially sensitive to volatility. Our results confirmed this theory, finding that President Bush's reelection, which resolved some of the uncertainty surrounding whether the tax cuts would be extended, caused a greater decline in volatility for the firms most affected by dividend taxes in their earlier study. We also noted that the standard errors for the aggregate runs reported in the Amromin et al. study were so large that they would be unable to detect the full theoretical effect of the dividend tax reductions even under the most optimistic assumptions of the tax cut's impact, and even assuming that the entire effect occurred in one day.³⁸

³⁶ G. Amromin, P. Harrison, and S. Sharp, "How Did the 2003 Dividend Tax Cut Affect Stock Prices?" *Federal Reserve Discussion Paper* 61 (2005)

³⁷ Alan J. Auerbach & Kevin A Hassett, 2006. "[Dividend Taxes and Firm Valuation: New Evidence](#)," [Berkeley Olin Program in Law & Economics, Working Paper Series](#) 272642, Berkeley Olin Program in Law & Economics.

³⁸ *Ibid.*

A more recent study by Auerbach, Chaney, and me (2008) directly estimated the impact of dividend tax changes on investment. In this study, we divided user cost regressions according to sample splits that were based on the classification of firms from my 2005 study with Auerbach. We found that the user cost effect was biggest for immature firms that had never paid a dividend, where dividend tax changes caused a large market capitalization response.³⁹ This suggests that the dividend tax cut may have stimulated investment significantly. However, the authors also found that firms that were not taxable in this period had little response to the user cost. As there were many such firms, this suggests that the aggregate effect of the dividend tax cut on investment was smaller than one would have predicted if one ignored the fact that many firms left the recession with a healthy tax loss carry-forward position. This observation is magnified by Altshuler, Auerbach, Cooper and Knittel's (2008) result documenting a dramatic increase in the proportion of firms that had tax losses during this time period.⁴⁰

Thus, the literature is somewhat mixed on this issue. The data seem to favor the new view of the user cost effect, which suggests that the impact of the dividend tax change would be small for most mature firms. However, there is evidence that immature firms responded quite a bit. On balance, then, one should conclude that as was the case with earlier studies of the new and old views, firm heterogeneity seems to be quite important in evaluating the investment response to the dividend tax reduction. Consistent with the view that there may have been a significant if not enormous effect of the dividend tax cut is a recent paper by Gilchrist and Zakrajsek (2007).⁴¹ They use bond price data to calculate firm-specific interest rates and user costs assuming the marginal source of finance is debt. They find that a 1 percentage point increase in the user cost of capital implies a reduction in the investment rate of 50 to 75 basis points, a number which rises to a 1 percent reduction in the long run.

Overall, it is safe to conclude that a near tripling of the dividend tax rate proposed by President Obama's latest budget would have negative consequences on investment and growth.

³⁹ Auerbach, Alan J., Eric Chaney and Kevin A. Hassett. 2008. "Dividend Taxes, Partial Expensing and Business Fixed Investment: The Case of the Bush Tax Cuts." Prepared for Forum for Analysis of Corporate Taxation Conference on Assessing the Effects of Corporate Taxation, American Enterprise Institute, Washington.

⁴⁰ Altshuler, R., A. J. Auerbach, M. Cooper, and M. Knittel (2008): "Understanding U.S. Corporate Tax Losses," Discussion paper, National Bureau of Economic Research No. 14405.

⁴¹ Simon Gilchrist and Egon Zakrajsek, "Investment and the Cost of Capital: New Evidence from the Corporate Bond Market." NBER Working Paper No. 13174. (2007)

VI. The Corporate Income Tax

In addition to the detrimental effect of capital taxation on saving, which I demonstrated above with my example of the tradeoff between consuming apples now or oranges in ten years, taxation at the corporate level has the undesirable tendency to drive capital overseas. Much of the early research on the corporate income tax examined its effect in a closed economy, in other words an economy where capital is contained. In this situation the corporate income tax can be viewed as, essentially, a direct tax on the owners of capital. More recent research, however, has begun to reflect the fact that the US economy is certainly best characterized as an open one.

In an open economy, if corporate tax rates are high, then investors and firms are free to move capital to other countries with more favorable tax treatments. If an American firm locates a plant in the U.S., for example, it will after state and local taxes keep only 61 cents of every dollar the facility earns. If it locates the new plant in Ireland, it keeps 87 cents of unrepatriated earnings. There is a large literature that finds that firms are incredibly skilled at moving money around to minimize their taxes. A classic paper by Roseanne Altshuler, Harry Grubert and T. Scott Newlon finds investment location is highly responsive to tax rate differentials (with elasticities ranging from 1.5 to 2.8).⁴² In addition, Harry Grubert has written a large number of papers with various coauthors documenting massive income shifting behavior of U.S. multinationals.⁴³

Economists will tell you that Laffer curve phenomena, that is, situations when tax rates go down and revenue goes up, are unlikely and rare, and require high elasticities. It is true that they are rare, but it is not surprising given the elasticities described above that a number of authors have found that the U.S. is on the wrong side of the Laffer curve.

A 2007 paper by Kimberly Clausing examines OECD countries over the period 1979-2002.⁴⁴ Analyzing the variation in the countries tax rates and their tax revenues, she concludes that the revenue-maximizing corporate tax rate is 33 percent for the sample. Michael Devereaux examines the same relationship and finds evidence, although weak, that the revenue-

⁴² Rosanne Altshuler, Harry Grubert, and T. Scott Newlon. "Has U.S. Investment Abroad Become More Sensitive to Tax Rates?" *International Taxation and Multinational Activity* edited by James R. Hines. Pg. 9-38 (January 2000)

⁴³ Examples include Harry Grubert, "Intangible Income, Intercompany Transactions, Income Shifting, and the Choice of Location." *National Tax Journal*, 56.1 (March 2003); Harry Grubert and John Mutti, "Do Taxes Influence Where U.S. Corporations Invest?" *National Tax Journal*, 53.3 (December 2000); Harry Grubert and Joel Slemrod, "The Effect of Taxes on Investment and Income Shifting to Puerto Rico." NBER Working Paper No. 4869 (September 1994) <http://www.nber.org/papers/w4869.pdf>.

⁴⁴ Clausing, Kimberly A. "Corporate Tax Revenues in OECD Countries," *International Tax and Public Finance* 14:115-133 (2007).

maximizing rate might be rather low.⁴⁵ Focusing on Canada, a study by Jack Mintz estimated that a corporate rate at 28 percent would bring in the most revenue. Lastly, my work with AEI colleague Alex Brill also finds strong evidence that a Laffer curve exists in the corporate sphere and that the revenue maximizing rate has fallen from about 34 percent in the 1980s to 26 percent in the early 2000s.⁴⁶ If you take the Brill Hassett estimates seriously, then the U.S. could increase tax revenue by 767 billion dollars over the next ten years if it reduces its rate to 26.4 percent, and it would have to cut the rate all the way to 17.8 percent if it wanted to enact a revenue neutral reform.

A final argument in favor of cutting the corporate tax rate is that it would benefit workers. This channel was recently discussed in a Senate Budget Committee testimony by the former director of the Brookings-Urban Tax Policy Center Roseanne Altshuler, who wrote, “Moreover, any increase in the corporate income tax rate will reduce domestic income and lower wages (through an outflow of capital) and adversely affect economic efficiency.”⁴⁷

The benefits to American workers have been documented in a number of recent studies such as a 2007 paper by Alison Felix,⁴⁸ work done by Mihir A. Desai, C. Fritz Foley, and James R. Hines,⁴⁹ and my own research with my colleague Aparna Mathur.⁵⁰ They all conclude that labor bears much, if not all, of the burden of the corporate tax. The idea that workers may bear a portion of the corporate income tax is neither surprising nor new. Basic incidence analysis suggests that the burden of the tax will always be larger on the side of the market that is more inelastic. In the short run, the incidence will necessarily be borne out of the earnings of fixed capital since the supply of capital is fixed. However, it is the long run effects which are of greatest theoretical and practical interest. Since capital is relatively more mobile in the long-run than labor (which is relatively inelastically supplied), labor could bear a larger portion of the tax burden.

⁴⁵ Michael P. Devereux, *Developments in the Taxation of Corporate Profit in the OECD Since 1965: Rates, Bases and Revenues*. Oxford University Working Paper. (May 2006)

⁴⁶ Alex Brill and Kevin Hassett, *Revenue Maximizing Corporate Income Taxes: The Laffer Curve in OECD Countries*.” AEI working paper # 137, American Enterprise Institute, July 31, 2007.

⁴⁷ Rosanne Altshuler, “Testimony of Dr. Rosanne Altshuler Before the Senate Committee on the Budget.” Hearing on Tax Reform: A Necessary Component for Restoring Fiscal Responsibility. February 2, 2011. Pg. 3. http://www.budget.senate.gov/democratic/index.cfm/files/serve?File_id=d86dd771-f895-48f4-abf7-1e1f79dc319b

⁴⁸ Rachael Alison Felix, “Passing the Burden: Corporate Tax Incidence in Open Economies.” (October 2007) <http://www.kc.frb.org/Publicat/RegionalRWP/RRWP07-01.pdf>

⁴⁹ Mihir A. Desai, C. Fritz Foley, and James R. Hines, Jr., “Labor and Capital Shares of the Corporate Tax Burden: International Evidence,” Prepared for the International Tax Policy Forum and Urban-Brookings Tax Policy Center conference on Who Pays the Corporate Tax in an Open Economy?, December 18, 2007.

⁵⁰ Kevin A. Hassett and Aparna Mathur, “Spatial Tax Competition and Domestic Wages” *AEI Working Paper* (December 2010).

There are two important implications of this capital mobility. The first is that the United States would likely draw more capital by lowering its corporate tax rates. It may also be on the wrong side of the “Laffer curve” and be able to raise more revenue from a lower rate. The second implication is that the gains from a corporate tax cut would likely flow through to labor. As capital returns to the American economy, each worker will have a relatively larger stock of capital to work with, and the marginal product of labor will rise.

Research that I have conducted on both of these topics with AEI colleagues Alex Brill and Aparna Mathur has come under criticism by researchers at CRS, and the next section will respond to that criticism.

VII. Response to criticism

In a recent research report prepared by Gravelle and Hungerford (2011) for the Congressional Research Service,⁵¹ the authors take issue with a couple of my studies on corporate taxation, along with almost every other paper in the literature. They argue that the Laffer curve results from the Brill paper are the result of an “econometric error.” The authors also go to great lengths to criticize my work with Mathur.

The “error” they accuse Brill and I of making is that we do not use fixed effects in our panel regressions. While this is a technical issue that is far beyond the scope of this hearing, it is important to note that this choice (which has been made by other authors in the literature for the same reason we make it) is a specification choice, not an “error.” As I taught my students when I taught graduate level econometrics at Columbia, if one is running a cross section regression, one cannot control for fixed effects. If one has a large panel data set with many countries and years, and ample variation for the relevant variables, one can. The sample we use has ample cross section variation, but not an enormous amount of time series variation for each country, as corporate tax changes are infrequent. The specification preferred by the CRS throws out the variation across countries, and focuses only on those countries that change their rates. In their specification, it is irrelevant that the U.S. is now the high tax country, since differences across countries are thrown out. It should be no surprise that, since changes are relatively infrequent, throwing out all other variation makes it difficult to find statistically significant results.

⁵¹ Jane G. Gravelle and Thomas L. Hungerford, “Corporate Tax Reform: Issues for Congress.” Congressional Research Service (December 2011)

The logically correct statement one might make given their results is that if one controls for fixed effects, the Laffer curve is not statistically significant, and if one does not then it is. It might be that this is because the CRS estimator eliminates much of the variation, or it might be for the reasons highlighted in the CRS report. The fact that the report immediately jumps to the conclusion it does reveals a tendency in the report that is repeated often as it turns to other papers. When the authors finally find some specification that agrees with their biases, then they conclude that only that specification is correct.

The problem with such an explicit data mining approach is that it has very little potential to reveal the truth. The first sign that they have not done so is that there are a number of other papers (cited above) with similar findings. A second sign that the authors have not shed light on the truth on this issue is the logical problem presented by their results. If there is no Laffer curve in the data in the range of current tax rates, then they would also have to reject the large literature mentioned above that finds that corporate income is highly mobile, seeking out the lowest tax countries. The authors also would be unable to explain why countries around the world have been cutting their corporate tax rates. If Brill and I (and the other authors mentioned) are right, then all the pieces tie together sensibly. Countries reduce their rates because they see the harm that is done when their own rate disadvantages them as a location.

The same approach is taken later in the study when the authors turn to my paper with Aparna Mathur on the effect of corporate taxes on worker wages, where the authors again discard much of the variation for poorly motivated reasons, making statistical inference more difficult, and then declare victory when statistical significance diminishes.

In one of the first empirical studies on the topic, (Hassett and Mathur, 2006, revised 2010) we use a unique, self-compiled dataset on international tax rates and explore the link between taxes and manufacturing wages for a panel of 65 countries over 25 years.⁵² We find, controlling for other macroeconomic variables, that wages are significantly responsive to corporate taxation, in that higher corporate tax rates depress wages. We also find that tax characteristics of neighboring countries, whether geographic or economic, have a significant effect on domestic wages. These results are consistent with the frequently employed assumptions in the public finance literature that capital is highly mobile, but labor is not. Under these conditions labor will bear the burden of capital taxes, after some lag while firms observe productivity gains and workers renegotiate fixed wage contracts. The study uses a standard specification drawn from the existing literature on wage variation across countries.

⁵² The original paper was updated in 2010. The 2010 version is described here. Kevin A. Hassett and Aparna Mathur, "Taxes and Wages," *AEI Working Paper 128* (June 2006); Kevin A. Hassett and Aparna Mathur, "Spatial Tax Competition and Domestic Wages" *AEI Working Paper* (December 2010).

My colleagues Aparna Mathur and Matt Jensen summarize these results concisely,⁵³ “the results suggest that a 1 percent increase in the corporate tax rates leads to a 0.5 percent decrease in wage rates. For example, if the corporate tax rate increases from 35 percent to 35.35 percent, a 1 percent increase, a 10 dollar per hour wage rate will decrease 0.5 percent to \$9.95. Using information from the United States wage bill and tax revenues, this implies that every additional dollar of tax revenue leads to a \$4 decrease in aggregate real wages. Examining the effects of tax rate changes one year later, rather than five, we find that a \$1 increase in tax revenues leads to \$2 decrease in wages.⁵⁴”

The CRS first tested our data and results to see if the results were in fact replicable. They reported that the results in fact did match the results presented in our paper, and the variable of interest, the corporate tax rate was indeed statistically significant. They then tested to see if alternative specifications of the regression equation would still produce significant results. For example, they suggested that using annual exchange rates to convert the national wage data may be inappropriate and that purchasing power parity conversions were needed. When they did the conversions using PPP, the results were very similar to those with the exchange rate data and were still statistically significant. They then went on to suggest that inflation-adjusted PPPs were an even better method for obtaining comparable real wages across countries. Using this measure as the dependent variable did produce a change in the magnitude of the coefficient—it decreased marginally. However, the coefficient was still statistically significant at conventional significance levels. The authors then concluded that their methodology had yielded less robust estimates of the effect of corporate taxes on workers, even though the negative and statistically significant effect on wages was robust.

As a final check, they attempted to replicate the results using only a balanced panel (i.e. using only those countries which had the full five years of wage data). In this case, the results were insignificant. However, this is not surprising since imposing the condition of full availability of data implied that the sample size dropped significantly (by 30 percent) and most importantly, would have eliminated a lot of small, developing countries whose wage response to corporate tax changes would likely be more pronounced. In fact, in results not reported in the paper, we show that small, open economies have a higher elasticity of wages to corporate taxes than larger economies. In addition, econometric analysis can be conducted using unbalanced panels, particularly when the nature of the data is such that it is difficult to obtain consistent, good data for all countries.

⁵³ Matthew H. Jensen and Aparna Mathur, "Corporate Tax Burden on Labor: Theory and Empirical Evidence," *Tax Notes*, June 6, 2011, p. 1083, *Doc 2011-10018*

⁵⁴ For this result, we use annual income regressions and a GMM specification, instead of the five-year averages.

A final specification that the authors ran was to use annual wage data and then use several lags of the corporate tax variable to see if the coefficients were significant. They report that the coefficients are insignificant. However, this is clearly incorrect since our paper does present one specification using annual wages as the dependent variable and we find statistically significant coefficients on the corporate tax variable. One reason the authors may be obtaining their results is due to an incorrect specification of the regression equation. In a typical annual wage regression, one would have to include lagged wages as an additional regressor on the right hand side to account for persistence in the wage data. Current wages are likely to be highly dependent on lagged wages, at least for one period before. Further, the lagged dependent variable and the error term are likely to be correlated due to serial correlation in the error term. We attempt to control for all these misspecification problems in the regression reported in our paper, and use GMM to instrument for the lagged dependent variable. As mentioned earlier, our results suggest that the elasticity of wages to corporate taxes is lower in the annual data, but still statistically significant.

Since our first work, it is worth adding, there has been an explosion of literature documenting similar effects. The authors in their summary repeatedly just reject the work of these many distinguished scholars, often for the most trivial of reasons.

The first literature entry mentioned by the CRS is a study by R. Alison Felix,⁵⁵ who uses cross-country data over the period 1979-2002 to estimate the effect corporate tax rate changes on annual gross wages. She finds that a 1 percentage point increase in the corporate tax rate decreases annual wages by 0.7 percent, which is a larger effect than the one documented in my study with Mathur. Felix also has another study using cross-state data, whose results are smaller, but they are still criticized by the CRS as being implausible.⁵⁶

Another example is a study by Mihir A. Desai, C. Fritz Foley, and James R. Hines, who use data on foreign activities of U.S. multinationals to create a panel of more than 50 countries between 1989 and 2004.⁵⁷ They investigate the effect of corporate taxes on labor and capital. Their estimates show that 45 and 75 percent of the burden of corporate taxes is borne by labor with the remainder (out of a 100 percent) borne by capital. Once again, this result is not

⁵⁵ Rachael Alison Felix, "Passing the Burden: Corporate Tax Incidence in Open Economies." (October 2007) <http://www.kc.frb.org/Publicat/RegionalRWP/RRWP07-01.pdf>

⁵⁶ R. Alison Felix, "Do State Corporate Income Taxes Reduce Wages?" *Economic Review*, Federal Reserve Bank of Kansas City, Vol. 94, No. 9 (2009).

⁵⁷ Mehir A. Desai, C. Fritz Foley, and James R. Hines, Jr., "Labor and Capital Shares of the Corporate Tax Burden: International Evidence," Prepared for the International Tax Policy Forum and Urban-Brookings Tax Policy Center conference on Who Pays the Corporate Tax in an Open Economy?, December 18, 2007.

inconsistent with other results and even theoretical expectations, which Gravelle and Hungerford admit.

A different study focusing on the incidence across states is Tax Foundation Working Paper by Robert Carroll, who also finds that corporate taxes negatively affected wages during the 1970 and 2007 period.⁵⁸ The paper estimates that a 1 percent increase in the average state and local corporate tax rate can be expected to lower real wages by 0.014 percent.

Lastly, a European study by Wiji Arulampalam, Michael Devereux and Giorgia Maffini on corporate taxes, which uses firm level data in 9 countries over the period 1996-2003.⁵⁹ They conclude that an exogenous rise of \$1 would reduce the wage bill by 49 cents. These results offer evidence of comparable effect though using a different methodology, but it is similarly rejected by the CRS study, which concludes that “it is not clear what the study is measuring.”

The last point I would like to make is that the authors of these studies, which the CRS report dismisses so lightly, represent many highly respectable institutions, such as, to name a few, Harvard Business School, Oxford University, University of Warwick, the Federal Reserve Bank of Kansas City, the University of Michigan, and Ernst & Young. It is possible that the CRS view is correct and this large literature will ultimately be proven wrong, but it is far more likely that the CRS view will, because of the overwhelming evidence, be rejected. The latter possibility seems unthinkable to the authors of the CRS report.

I add this digression to my testimony because the CRS report is radically at odds with the literature. I relish academic debate, and think that authors serve a valuable service when they challenge research. But a CRS report that is supposed to inform about the consensus of the literature that veers so far from that activity, is a disservice to Congress, and the taxpayers.

VIII. Conclusion

My testimony covers a wide range of literature relating to various forms of capital taxation. As I conclude, allow me to put this all in the context of the current debate, by addressing each tax in turn.

⁵⁸ Carroll, Robert. “The Corporate Income Tax and Workers’ Wages: New Evidence From the 50 States,” Tax Foundation Special Report No. 169 (Aug. 2009).

⁵⁹ Wiji Arulampalam, Michael P. Devereux, and Giorgia Maffini, *The Direct Incidence of Corporate Income Tax on Wages*, Oxford University Center for Business Taxation, (March, 2011)

Corporate tax. As noted above, the United States now has the highest corporate tax rate in the developed world. This distinction puts our firms at a significant disadvantage, and discourages both foreign and domestic investment. The corporate tax rate is widely regarded as the most economically harmful tax (as discussed earlier),⁶⁰ for many of the reasons I have discussed. The good news is that there is a broad consensus in favor of lowering the corporate tax rate. President Obama has proposed lowering it to 28 percent, Republican presidential candidate Mitt Romney has proposed a 25 percent rate, Ways and Means Committee chairman Dave Camp has also proposed a 25 percent rate, the president's fiscal commission (Simpson-Bowles) proposed lowering the corporate tax rate to between 23 and 29 percent, and the Rivlin-Domenici Commission proposed a 27 percent rate. This bipartisan interest offers an opportunity. I consider the corporate rate to be the low-hanging fruit of tax reform. It would offer huge economic benefit to lower the rate, and it is a reform almost everyone can agree on.

Expensing. The President's proposals call for the elimination of several depreciation provisions which moves away from full expensing. Again, there is no support in the literature for such a move. If anything, I hope that some of the zeal to lower corporate rates translates into expanded expensing provisions.

Capital Gains and Dividends. As noted above, economic efficiency and pro-growth policy requires low capital taxes. Capital gains and dividends are already taxed through the corporate income tax, and should not be taxed again. We should push to reduce these rates.

The President's current budget proposes raising the capital gains rate from 15 percent to 20 percent and the dividends rate from 15 percent to 39.6 percent. These rates will go even higher for high income individual because the President's health care bill includes a 3.8 percent surcharge, dubbed the Unearned Income Medicare Contribution, on investment income of high income individuals. Additionally, the President's budget brings back a provision that phases out deductions for high-income taxpayers, which will increase the dividend rate another 1.2 percent. All totaled, the president wants to raise the top dividend tax rate from its current 15 percent to a whopping 44.6 percent. The economic literature provides no support for such a move.

Buffett Rule. I would be remiss if I did not offer a few words on the so-called Buffett Rule, which appears to be the focal point of President Obama's decidedly domestic policy agenda. The Buffet rule proposes to apply a minimum tax to ensure that all taxpayers with income exceeding \$1 million pay at least 30 percent of their income in taxes. It raises relatively little

⁶⁰ See Jens Arnold, "Do tax structures affect aggregate economic growth? Empirical evidence from a panel of OECD countries", *OECD Economics Department Working Paper* 643, 2008.

revenue (\$160 billion over 10 years compared to a current policy baseline, \$47 billion compared to a current law baseline, and even less than that if all of President Obama's other proposals were to become a reality). Additionally, the Buffett rule does not apply equally to all income classes. It focuses on capital gains and oddly omits interest income from municipal bonds. From an economic standpoint, the Buffett Rule is merely a stealth tax on capital gains and other forms of capital income. Once again, there is no support in the literature for such a tax.