Evaluation of Proposals for Economic Growth and Job Creation: Incentives for Investment

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Chairman Grassley, ranking member Baucus and members of the committee, it is a great honor to be afforded the opportunity to speak with you today. We come together at an important moment in the history of our great country. While the economy appeared to enter a recovery early last year, economic activity has subsequently slowed. As the Federal Reserve has noted, geopolitical risk is currently high and threatens to reinforce the negative momentum of the fourth quarter of 2002, perhaps even pushing our economy back into a recession. In addition, longer-term pressures provide strong economic headwinds. It is wholly appropriate that this body should meet at such a time and debate the potential of fiscal policy to soften or eliminate future hardships.

President Bush has proposed a significant change in the tax code in response to these current challenges. The President's plan has many components, but one---the reduction of the composite tax on corporate income---has ignited a great deal of conflicting opinion. I shall devote the lion's share of my remarks to the clarification of the plusses and minuses of eliminating so-called "double taxation." I also hope to indicate why I believe strongly that the proposed reduction in the composite tax on corporate income is a worthy and pressing objective.

Understanding the Economic Effects of the Current System

Under present law, a corporation that earns a dollar must pay 35 cents of corporate tax. If the company then remits the remaining 65 cents to a shareholder in the form of a dividend, the shareholder must pay an additional tax. Many dividends are received by those who pay the top marginal income tax rate of 38.6 percent, and the total tax paid on a dollar of corporate income can be more than 60 percent. If one accounts for state income and corporate taxes as well, the total tax can be much higher.

Should the tax be that high? Economists have employed sophisticated theoretical and computer models to study the optimal design of efficient tax systems, and have almost unanimously concluded that the optimal tax on capital income should be zero.¹ This result is quite simple. Taxes on capital have a significant effect on the change in capacity and economic growth, and even small growth distortions can compound into large disturbances. If one had to pick an area in our existing tax code where current practice was farthest from the accepted ideal, the double tax of corporate income would likely be one of the first candidates.

Economists do not occupy themselves with the study of optimal efficient tax systems for the mere pleasure of it. Indeed, I can report from the front lines that the endeavor is rarely pleasurable. But deviations from efficient design can have painful and significant real-world consequences. Surveying our own current system, a number come to mind.

First, the double taxation of corporate income discourages investment in equipment and structures. The high 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 especially high tax on dividends encourages firms not to pay them. Firms that accumulate significant internal cash must then be carefully monitored by

¹ For a recent review, see 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*.

shareholders to make sure that the funds are allocated responsibly. As we have learned painfully in recent years, managers may not always act in shareholders' best interest. High dividend taxes exacerbate accounting problems.

Third, 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 idea that high capital income taxes can be harmful to economies has received a fairly broad acceptance among our trading partners. Indeed, most countries have already enacted a policy similar to that proposed by President Bush. Since the U.S. has lagged behind, we now find ourselves in the uncomfortable position of being second only to Japan in the degree to which we tax corporate income. As can be seen in Figure 1, which plots the combined corporate and dividend tax across countries, the evidence is striking. As Figure 2 demonstrates, the result is not solely attributable to the double tax on dividends. The U.S. corporate tax rate is second from the top as well.²

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. and Japan are among the few countries not to have recognized this.

One should not take these tax disadvantages lightly. Under current law, for example, a U.S. firm intent on paying dividends has to have more than double the after-corporate tax profit of a Norwegian firm in order to offer a taxable shareholder the same after-tax cash flow.

Understanding the Impact of the President's Proposal

The President's plan has an intuitive appeal to it. Corporate income that has been taxed once will not be taxed again. It will not be taxed at the shareholder level if the corporation uses its income to pay a dividend. Capital gains that are attributable to the retention of after-tax corporate income will also not be taxed. As such, the plan is not just an elimination of dividend taxes. Many capital gains will be untaxed as well.

 $^{^{2}}$ A number of countries have recently stepped away from imputation systems, but after significantly lowering their corporate tax rates. These steps were viewed as simplifications. This highlights the fact that it is not the "double tax" that presents the problem, but the combined tax rate on corporate income.

The effect on investment. The literature relating tax factors to firm capital spending was reviewed recently by Hassett and Hubbard (2002).³ We found that a large literature has often identified strong effects of tax policy on investment behavior. However, that conclusion relied on studies that mostly used corporate-level tax policies for identification, and does not necessarily imply that dividend tax reductions will have the same effect.

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 pathbreaking 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".⁴ 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.⁵

Accordingly, it is appropriate given the academic literature to be somewhat cautious concerning the likely investment effect of the President's plan, and to account for the eventuality that perhaps as many as half of firms will respond in a small way. Calculations that I have performed confirm the recent testimony of the Chairman of the Council of Economic Advisors that the reduction in the net cost of a new equipment investment associated with the President's proposal is in the range of 4 to 7 percent.⁶ If one is willing to assume that state and local taxes will also be eliminated in response to the federal action, the effects can climb higher. To put these reductions in perspective, the low end of Dr. Hubbard's range is approximately the same reduction in the cost of new investments achieved by last year's stimulus bill that included temporary partial expensing. The high end of the range provides about double the stimulative effect of the 2002 temporary partial expensing provision.⁷

In other words, the economic impact of the plan is clearly substantial.

The effect on debt-equity ratios. The effect of double taxation on debt-equity ratios has been recognized to be an important theoretical concern for decades. Remarking on the theory in their famous textbook, Atkinson and Stiglitz compare a classical system like our own to one that integrates corporate and personal taxes (an "imputation" system). They remark that "the switch from a classical system to imputation may make a substantial difference" and equity finance may be much more

³ Kevin A. Hassett and R. Glenn Hubbard (2002), "Tax Policy and Investment," in A. Auerbach and M. Feldstein eds., *Handbook of Public Economics*, volume 3, pp 1293-1338.

⁴ Poterba, J.M., and L.H. Summers, "The Econonomic Effects of Dividend Taxation", (1985) in E. Altman and M. Subrahmanyam, eds., *Recent Advances in Corporate Finance*, pp. 227-284.

⁵ Auerbach, A.J., and K.A. Hassett (2003), "On the Marginal Source of Investment Funds," *Journal of Public Economics*, 87, pp. 205-232.

⁶ Testimony of R. Glenn Hubbard before the Senate Budget Committee, February 3rd, 2003. Other calculations suggest that the impact on incentives to invest in nonresidential structures is much greater than that, but the empirical link between the marginal incentive to invest and structures investment is much weaker.

⁷ The incentive effects of the Job Creation and Worker Assistance Act of (2002) were discussed in , Cohen, D.S., Hansen, D.P. and K.A. Hassett (2002), "The Effects of Temporary Partial Expensing on Investment Incentives in the U.S.," *National Tax Journa,l* Volume LV, *No. 3, pp 457-466.*

likely.⁸ Early empirical work failed to find a significant effect of marginal tax rates on finance, but recent studies have been more successful finding a link. In a recent review article, Duke economist John Graham notes that higher marginal tax rates tend to increase debt levels---the effect predicted by theory.⁹

One should expect the President's proposal to have some effect on debt-equity ratios and increase the reliance of firms on equity finance. The exact size of the effect, however, is difficult to gauge from existing work.

The effect on payout rates. Economist James Poterba has studied the effect of dividend taxes on payout rates.¹⁰ He found that payout tends to respond sharply to swings in marginal tax rates. His estimates suggest that the increase in dividend payout that would occur following the adoption of the President's plan could be in the neighborhood of 20 percentage points or larger. Such an increase should make equities an interesting alternative to short term bonds for investors who are interested in a steady cash flow. Since the recent accounting scandals have already induced firms that do not pay a dividend to consider doing so, the likely increase in yields may be larger.

The effect on the financial markets. The value of a share of stock should be equal to the value in today's currency of all future after-tax dividend payments. Under these conditions, a reduction in dividend tax payments could lead to significantly higher valuations for equities. On the other hand, if the reduction in taxation stimulates a wave of new investment, new competitors may be encouraged to enter and compete away the profits of existing firms. If the plan is expected to have a large investment effect, then it will not have a large stock market effect. Conversely, those who claim the bill will not have a stimulative effect cannot at the same time argue that it will not influence the stock market.

Even accounting for this effects, it is easy to generate positive equity movements similar to those reported by various sources in the range of 8 to 10 percentage points.¹¹

One other valuation point is worth noting. Some assets (real estate investment trusts, municipal bonds) currently have a special tax status. The proposal does not change that status, but it does reduce the differential advantage that these assets have over equities. In theory, this should not have a significant impact on the value of the assets in question unless they have a special "niche" value, as might be true if the asset's returns have a very unusual correlation with other assets. An asset's price depends on its own fundamentals. The cash flows of REITS and municipal bonds are not affected by the proposal. Accordingly, economic theory would suggest that we should see an equity price response for the assets that have the changing law, but not necessarily a negative response for those that do not see their tax rules changed.

The effect on the value of deductions and credits. A final and important complication is the effect of the President's proposal on the value of deductions and credits. A tax mechanism that shields income from taxation at the corporate level may

⁸ Atkinson, A.B., and J.E. Stiglitz (1980), *Lectures on Public Economics*, p. 141.

⁹ Graham, J., "Taxes and Corporate Finance: A Review," Duke University (2003). Available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=264516.

¹⁰ Poterba, J.M., "Tax Policy and Corporate Saving," (1987) in *Brookings Papers on Economic Activity*, Volume 1987, Issue 2.

¹¹ For example, Ed Hyman, chairman of ISI Group, stated in an interview that his calculations suggested that the President's proposal would lead to about an 8 percent increase in the stock market. MSNBC transcript available at http://www.msnbc.com/news/856007.asp.

expose it to taxation at the individual level. As this effect may be important, a simple example is worth exploring in greater detail. Suppose that a firm has \$110 in income, and it has a deduction that it can claim that is worth \$10. If the firm claims the deduction, then it has lowered its corporate income to \$100. It will then pay \$35 in corporate tax, and it can distribute the remaining \$65 as a tax-free dividend. Now suppose that it also distributes the \$10. Since the \$10 was shielded from the corporate tax (avoiding \$3.50 of corporate tax liability), the shareholder must pay dividend tax. If the shareholder's tax rate is 35 percent, then the value of the deduction is zero. It just moves the tax liability of \$3.50 from the firm to the shareholder.

This effect becomes an issue when the firm's true economic income is much different from the definition of income used by tax authorities. However, to the extent that the problem does emerge, my best estimate is that corporations will retain earnings that would create dividend tax liabilities if distributed. If this is true, then the value of a deduction becomes the difference between the corporate tax rate and the capital gains rate. Since capital gains are not taxed upon accrual, the appropriate rate to use for that calculation is the capital gains rate that is adjusted for the benefit of deferral (perhaps a rate of about 10 percent), so in practice this effect will likely be small. If, on the other hand, we observed firms paying significant taxable dividends after the President's proposal became law, then this effect might be larger.

One other fact is worth noting. The reduction in the value of a deduction does not increase the marginal tax rate faced by firms. Indeed, even firms with significant tax shields are better off under the President's proposal. A useful analogy would be a tax reform that lowered the income tax rate and removed a special education deduction. This would, if well designed, leave taxpayers with more cash in their pockets but a smaller incentive to spend money on education as opposed to some other good. As a general rule, economists have viewed such reforms favorably on efficiency grounds.

Alternative Investment Policies

A number of other tax policies have been considered that also work to stimulate investment.

Expensing and/or an Investment Tax Credit (ITC). Expensing and ITC's reduce the cost of purchasing a new investment. As mentioned earlier, the dividend tax proposal has conservatively the same effect on the incentive to invest in equipment as the recently passed 30 percent partial expensing provision. Expensing and ITC's have the benefit that one must purchase a new piece of equipment in order to qualify for the tax reduction, thus eliminating the tax benefit for "old capital" that is already in place. On the other hand, these provisions typically are too small to change the relative position of the U.S. in the world average tax hierarchy. Since that relative position can have an important impact on location decisions, the incentive for firms to locate profits abroad will remain strong. The other positive effects on debt-equity ratios and dividend payouts would also disappear if this alternative policy were adopted.

Some advocate *temporary* ITC's or expensing. When tax benefits for investing are temporarily high, a firm has an incentive to invest before the special provision expires. This effect can increase the short-run stimulus of the bill. Temporary tax reductions also have a smaller long-run revenue cost. It is my view, however, that

temporary provisions are unwise. This is because firms must keep an eye on their longrun trajectory when making capital spending plans and temporary cuts do not change the long run target capacity. Accordingly, there will be a large difference across firms in the ability to move investment forwards, and significant distortion associated with temporary measures. In addition, when the temporary measure is removed, a "hangover" wherein investment is temporarily lower is likely. Even after the hangover is over, firms may decide to hold off capital purchases in anticipation of a future adoption of other temporary measures. Such a world is best avoided.

As revenue costs are a concern, it is natural to compare the various alternatives with an eye on their costs. One must be careful comparing the revenue costs of dividend tax reductions and ITC's. A dividend tax reduction lowers dividend taxes paid forever. Thus, the decline in tax revenue associated with it in the eleventh year is likely greater than the decline in revenue in the tenth year. The present value (looking forward for all of time) of revenue reduction for the dividend policy must be greater than that for these investment policies because the dividend tax reduction is also granted to "old" capital. Since policy can change over time, the dividend policy might nonetheless be the more cautious way to reduce the cost of investment, since the revenue cost is spread out over so many years.

Corporate tax rate reduction. A more direct way to deal with the increasing pressure from foreign tax competition might be to reduce the corporate tax rate to a level more in line with those of other countries. A reduction in the corporate tax rate would diminish the benefit of interest deductions, but likely have little impact on dividend payout rates.

Conclusion

The economics of the President's proposal is very sound. While the package is not designed solely to be a short-run stimulus, it likely will have positive effects in the short run that may easily be larger than those of the recently passed stimulus measure. It would do so without introducing a longer-run investment "hangover" while at the same time correcting significant imbalances in the current financial structure of corporations. These imbalances---the subsidy to debt finance and penalty for dividends----are surely unintended consequences of current policy.

Figure 1¹²:

Japan U.S. Luxembourg France Denmark Switzerland Canada Netherlands Germany Spain Ireland
Austria Sweden Australia = U.K. Hungary Portuga Belgium
Korea New Zealand Mexico Italy Greece Finland Norway lceland 80 0 10 20 30 40 50 60 70 Dividend Tax Rate (%)

Combined Corporate and Personal Dividend Tax Rates (2003 Under Current Legislation)

Figure 2¹²**:**





¹² Sources: Effective Corporate Rates are from the KPMG Corporate Tax Rate Survey (Jan 2002) and Personal Rates are from the OECD. 2001 Data Used: Australia, France, Greece, Japan, Korea, Luxembourg, Sweden, Switzerland, UK. 2003 data for Canada from The Finance Ministry of Canada, Belgian Data from Price Waterhouse Coopers and Italian data from Deloitte. I would like to thank Chris Edwards, Director of Fiscal Policy at CATO for supplying OECD methodology and data.