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THE ECONOMIC AND FISCAL EFFECTS  
OF THE PRESIDENT'S GROWTH PACKAGE

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Congressional efforts to fashion the fiscal year (FY) 2004 federal budget come at a time when the United States faces weaker than expected job growth, shrinking consumer confidence, and a heightened level of risk and uncertainty. Given these circumstances, policymakers should carefully consider opportunities to improve the U.S. economy.

Among the plans being considered is one that President George W. Bush proposed on January 7, 2003—a bold tax reform proposal that would increase economic growth. The components of the President's Economic Growth Package include ending double taxation of corporate dividends, accelerating the tax rate reductions enacted in 2001, and accelerating other provisions of the 2001 law, such as marriage penalty relief.

This report from the Center for Data Analysis (CDA) at The Heritage Foundation explores the implications for the U.S. economy and federal revenues of implementing the President's Economic Growth Package. Therefore, this report should be viewed as complementary to the recent analysis of President Bush's FY 2004

budget issued by the Congressional Budget Office (CBO).<sup>1</sup> Rather than analyzing the entire set of budget proposals at once, as done by the CBO, this *CDA Report* analyzes *only* the Economic Growth Package, a specific tax cut provision in the President's budget.

Assuming that the plan becomes effective on July 1, 2003, CDA analysts simulated its effects using the DRI-WEFA U.S. Macroeconomic Model<sup>2</sup> and the CDA's Individual Income Tax Model. CDA economists found that implementing the President's proposal would improve the nation's economic growth and employment level throughout the next 10 years while increasing the nation's capital stock.

Unlike short-term and temporary "stimulus" plans, such as S. 414, introduced by Senator Thomas Daschle (D-SD), the President's plan creates the conditions needed for both near- and long-term growth. Compared to the baseline forecast, CDA analysts project:

- **Higher gross domestic product.** Gross domestic product (GDP) would increase by an average of \$69 billion in inflation-

1. See Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2004*, March 2003, at [www.cbo.gov](http://www.cbo.gov).

2. CDA used the DRI-WEFA Mark 11 U.S. Macroeconomic Model, owned by Global Insight, to conduct this analysis. The model was developed by Nobel prize-winning economist Lawrence Klein and several colleagues at the University of Pennsylvania's Wharton School of Business. The methodologies, assumptions, conclusions, and opinions in this report are entirely the work of Heritage Foundation analysts. They have not been endorsed by, and do not necessarily reflect the views of, the owners of the model.

adjusted dollars from FY 2004 through FY 2013, with roughly 73 percent of this increase derived from the plan's dividend exclusion component. (See Figure 1.) Furthermore, the Economic Growth Package would increase GDP by \$84 billion in 2004 and \$81 billion in 2005, suggesting that the President's plan would boost the economy in the near term.

- **More job opportunities.** The employment level would average 844,000 additional jobs from FY 2004 through FY 2013, with projected increases of 997,000 in 2004 and 1,036,000 in 2005. Approximately 68 percent of the plan's average job growth from FY 2004 through FY 2013 would result from ending the double taxation of dividends. (See Figure 2.) The overall increase in jobs would correspond to an average decline in the unemployment rate of no less than 0.5 percent over these 10 years.
- **Added disposable personal income.** Disposable personal income (after adjusting for inflation) would be almost \$179 billion higher in FY 2004 and would increase by an average of \$121 billion from FY 2004 through FY 2013. Over the same 10-year period, disposable income for a family of four is projected to increase an average of \$1,653. The dividend exclusion component of the plan would account for 64 percent of the plan's overall average increase in disposable personal income from FY 2004 through FY 2013. (See Figure 3.)
- **Higher economic growth lowering the Treasury's static revenue effect by 57 percent.**<sup>3</sup> Static estimates suggest the Economic Growth Package would reduce federal revenue by about \$638 billion from FY 2004 through FY 2013.<sup>4</sup> However, the CDA's "dynamic" estimates show that the proposal would reduce federal revenue during the period by only

\$274 billion. (See Figure 4.) Moreover, the CDA's dynamic analysis estimates that the dividend component would bring about a total revenue reduction of \$143 billion, far less than the static estimate of \$360 billion. Unlike the conventional static method, the dynamic method employed by the CDA accounts for the effects of the plan's greater economic activity.<sup>5</sup> Figure 4, which compares the static and dynamic projections for federal revenue, shows that the estimation method chosen can make a large difference in the projected revenue reduction.

The structure of this *CDA Report* is as follows. The first section discusses the provisions of the Economic Growth Package. The next section explains the economic results for the dividend component of the plan and is followed by a similar analysis of the entire plan. The subsequent section compares the Economic Growth Package to other types of tax proposals, and the final section summarizes CDA results compared to those of other analysts.

The Appendix contains a review of the economic analysis and the methods used to produce the economic simulations. In addition, the Appendix contains charts showing the historical trends for key economic indicators and a table listing the year-by-year data from the analysis of the Economic Growth Package.

### PROVISIONS OF THE PRESIDENT'S ECONOMIC GROWTH PACKAGE

The provisions of the Economic Growth Package can be divided into the following categories: excluding corporate dividends from individual taxable income; accelerating several provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA); increasing small business expensing; and increasing the exemption for the alternative minimum tax (AMT).<sup>6</sup>

3. Unless otherwise noted, to maintain comparability with published CBO long-term projections, projections of changes in federal spending and revenue are not adjusted for inflation in this paper.
4. *Budget of the United States Government, Fiscal Year 2004: Analytical Perspectives* (Washington, D.C.: U.S. Government Printing Office, 2003), pp. 81, 83.
5. The differences between static and dynamic analysis are discussed in greater detail in subsequent sections of this report.

### **Excluding Corporate Dividends from Individual Taxable Income**

Under the Economic Growth Package, dividends paid to individuals would be excludable from taxable income provided they were paid out of after-tax corporate income. Each year, corporations would report the amount of excludable dividends to their shareholders. Additionally, corporations would report the amount of excludable retained earnings to their shareholders. This amount could be used by individuals to adjust their basis when selling shares of stock, an adjustment that would reduce their capital gains tax liability.

Dividends not taxed at the corporate level would not qualify as excludable. For example, if a corporation distributed \$100 in dividends but paid no federal income taxes on those funds, shareholders would not be able to exclude any of the \$100 from their personal income taxes. However, since firms would be required to calculate the amount of excludable dividends, individual shareholders would only have to report dividends as directed by the firms.

### **Acceleration of EGTRRA Provisions**

Four of the Economic Growth Package's components accelerate the phase-in of provisions contained in the Economic Growth and Tax Relief Reconciliation Act of 2001. These components are marriage penalty relief, expanding the 10 percent tax bracket, reducing marginal tax rates, and increasing the child tax credit. These provisions are currently scheduled to phase in throughout the next seven years.

Under the President's proposal, the standard deduction for married couples would be increased to double the amount of the standard deduction for single filers in 2003. Also in 2003, the width of the 15 percent bracket for married couples would be increased to twice the width for single filers. These marriage penalty relief provisions would otherwise phase in over the period 2005 to 2009.

The 10 percent bracket would be fully expanded in 2003 rather than 2008. In addition, the bracket would be indexed for inflation beginning in 2008. The endpoint for the 10 percent bracket would be increased from \$12,000 of taxable income to \$14,000 for married couples and from \$6,000 to \$7,000 for single taxpayers.

The reduction in income tax rates scheduled for 2004 and 2006 would take effect in 2003. Under current law, the rates above the 15 percent bracket are 27, 30, 35, and 38.6 percent. The new rates would be 25, 28, 33, and 35 percent, respectively.

In addition, under current law, an increase in the child tax credit is set to phase in between 2005 and 2010. Under the proposal, the amount of the child tax credit would be increased from \$600 to \$1,000 in 2003. Additionally, this increased credit would be paid in advance (beginning in July 2003) based on the information in the taxpayer's 2002 tax return. These provisions would combine to lower federal income taxes for a broad range of taxpayers.

### **Increased Small Business Expensing and AMT Exemption**

Two additional provisions are included in the Economic Growth Package. The first is a provision that would increase the maximum amount of investment in qualified new equipment that could be immediately expensed by small businesses (Section 179 Expensing). This amount would be increased from \$25,000 to \$75,000 beginning in 2003. The amount of investment eligible for this immediate deduction would begin to phase out for investments above \$325,000 (up from \$200,000). The new dollar amounts would be indexed for inflation beginning in 2004.

The amount of the alternative minimum tax exemption would also be increased by \$8,000 for married taxpayers and by \$4,000 for unmarried taxpayers in 2003 through 2005. Without this provision, some taxpayers whose regular income tax would be reduced by other provisions in the plan would see their AMT liability increase.

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6. CDA analysts modeled the President's Economic Growth Package as described in *Budget of the United States Government, Fiscal Year 2004: Analytical Perspectives*, pp. 66–68. As described in this document, the Economic Growth Package does not include a provision for personal reemployment accounts. The CBO analysis, however, does include a provision for personal reemployment accounts in the Economic Growth Package. See Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2004*, p. 46.

## ECONOMIC AND FISCAL EFFECTS OF THE ECONOMIC GROWTH PACKAGE

Although it contains various types of changes in tax law, the President's proposal is designed to create economic growth primarily through the dividend exclusion and reductions in individuals' marginal tax rates. Economists hold a variety of views on how changes in tax policy affect individual behavior and, therefore, the economy. These views can be categorized into those that focus on increasing aggregate demand and those that focus on increasing aggregate supply.

Aggregate demand measures the total amount of goods and services that households, firms, and governments are willing to buy at given aggregate price levels. Aggregate supply measures the total amount of goods and services that households, firms, and governments are willing to produce at given aggregate price levels.

Policies aimed at increasing aggregate demand are designed to move the economy closer to "full employment," given the current level of capacity. Policies aimed at bolstering aggregate supply increase employment levels by raising the long-run productive capacity of the economy. The tax reductions in the Economic Growth Package are consistent with the view that strengthening supply-side incentives is the best way to bolster the economy.

A recent report by the CBO classifies demand-side effects as "cyclical" changes caused by the business cycle. These changes occur during a business cycle and are associated with increases in the unemployment rate during a recession and decreases during an economic boom. Supply-side changes are seen as those that increase the capacity of the economy.<sup>7</sup>

For example, the President's proposal would allow individuals to keep more of the next dollar they earn by lowering marginal income tax rates. This benefit, in turn, would provide an added incentive for individuals to work more, whether through longer hours or joining the labor force. Similarly, lowering the tax on firms' cost of capital,

achieved by ending the double taxation of dividends, would strengthen incentives to invest.<sup>8</sup> In addition, the proposal has an important demand-side component, as it increases taxpayers' purchasing power through changes in the personal income tax code.

Stronger incentives would, in turn, lead to increased purchases of business equipment, machinery, and structures. An increase in the capacity of plant and equipment and its quality commonly is associated with an expansion of the labor force, and this effect can be seen in the results of the CDA analysis.

In practice, care must be taken to distinguish supply-side *policies* from supply-side *effects*. For example in its modeling, the CBO attributed the decrease in the unemployment rate following enactment of the President's budget to demand-side effects. Assuming that demand-side effects (classified as "cyclical" effects) reduced the unemployment rate leads naturally to the conclusion that they also caused much of the new economic growth and the increased tax revenues.

Supply-side tax policies, however, are designed to create jobs and economic growth now and in the future. Yet, as the CBO report shows, much of the short-run *effects* of the supply-side policies are sometimes classified as cyclical rather than supply-side. The CBO method does not allow analysts or policymakers an opportunity to compare the effects of different types of policies. In contrast, by separating the dividend proposal from the other components of the Economic Growth Package, the CDA analysis can be used to study the effects of the different types of proposals.

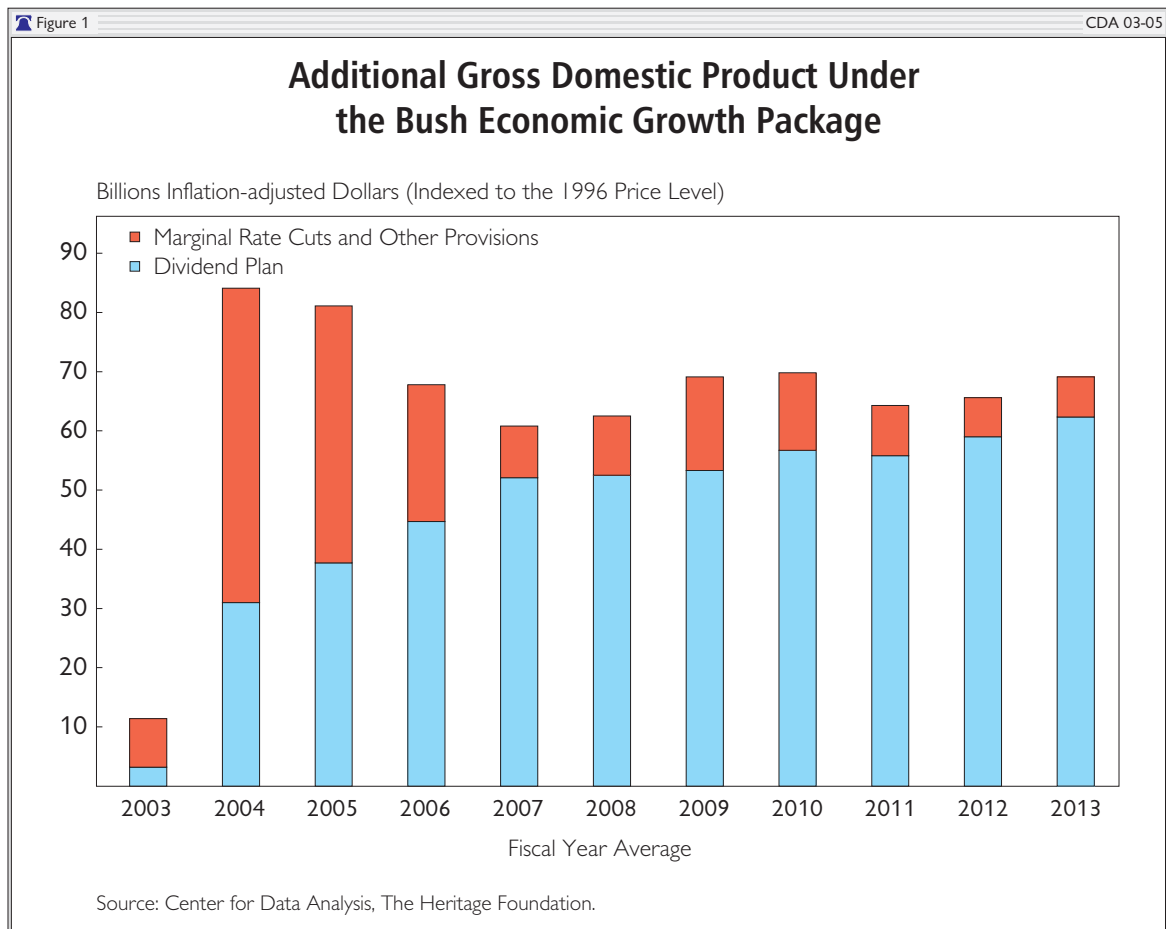
### Macroeconomic Effects of Ending Double Taxation of Dividends

The importance of the supply-side approach can be observed by comparing the projected effects of eliminating the double taxation of dividends to the projected effects of the entire plan.<sup>9</sup> In virtually all key economic categories, CDAs' projections show that eliminating the double taxation of dividends is the most beneficial component of

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7. See Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2004*, p. 46.

8. The terms "cost of capital" and "return to capital" are closely related. For example, the return on capital that a firm has to provide to an investor is the cost of employing that capital. Lowering the tax on this capital thus results in added incentives to invest and, therefore, purchase the capital.



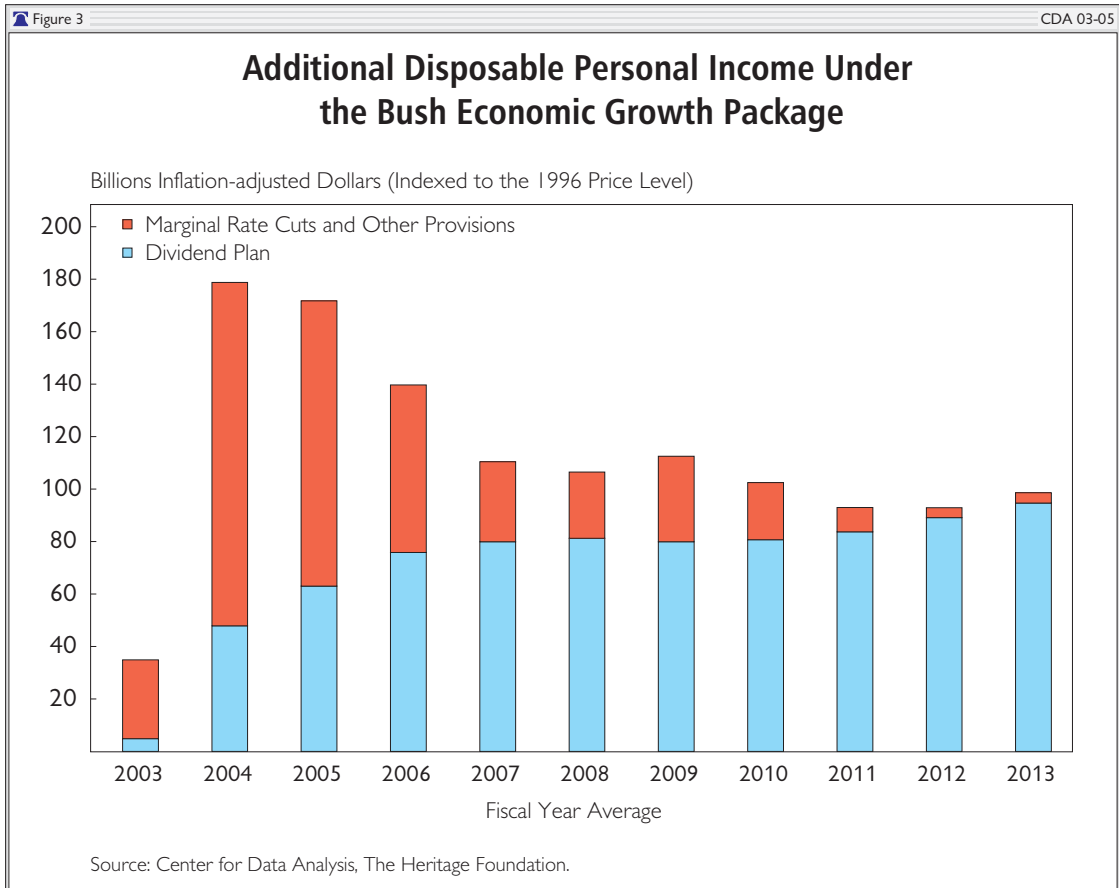
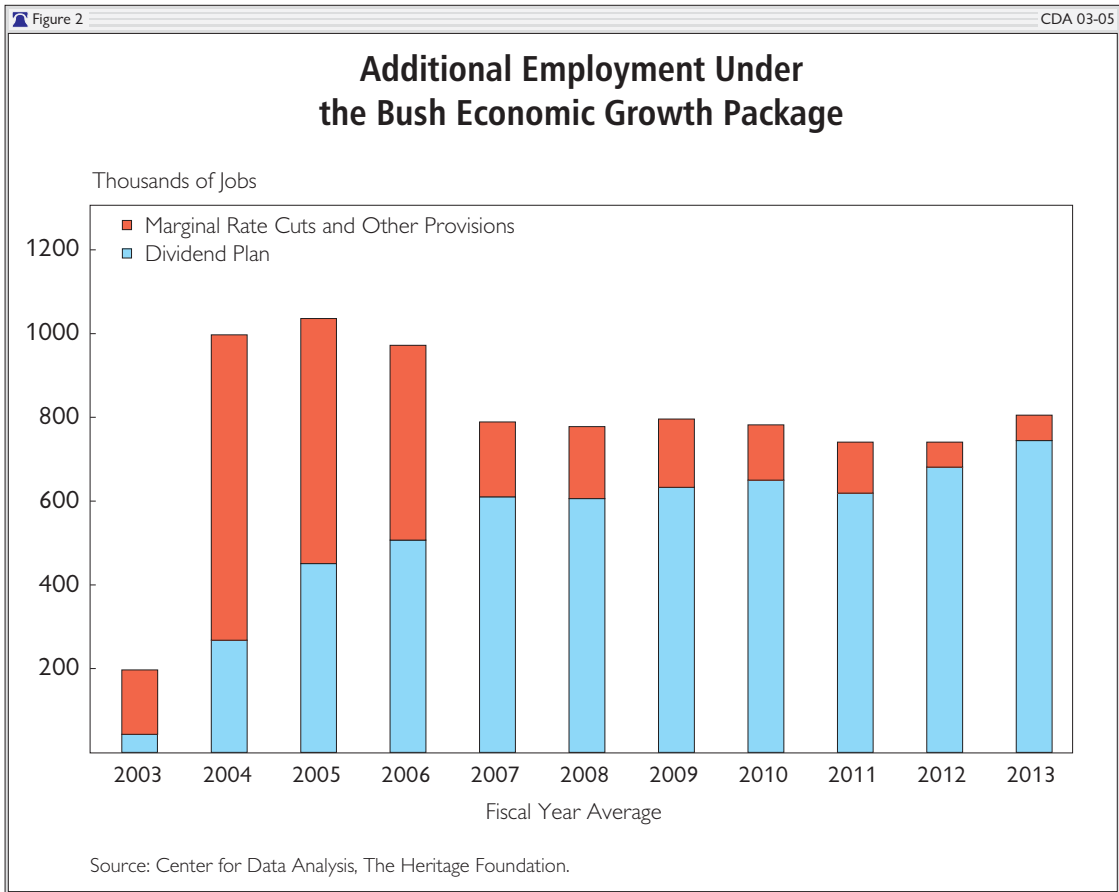
the Economic Growth Package. Unless otherwise noted, all amounts discussed below are adjusted for inflation, and all fiscal year differences are compared to a baseline forecast.

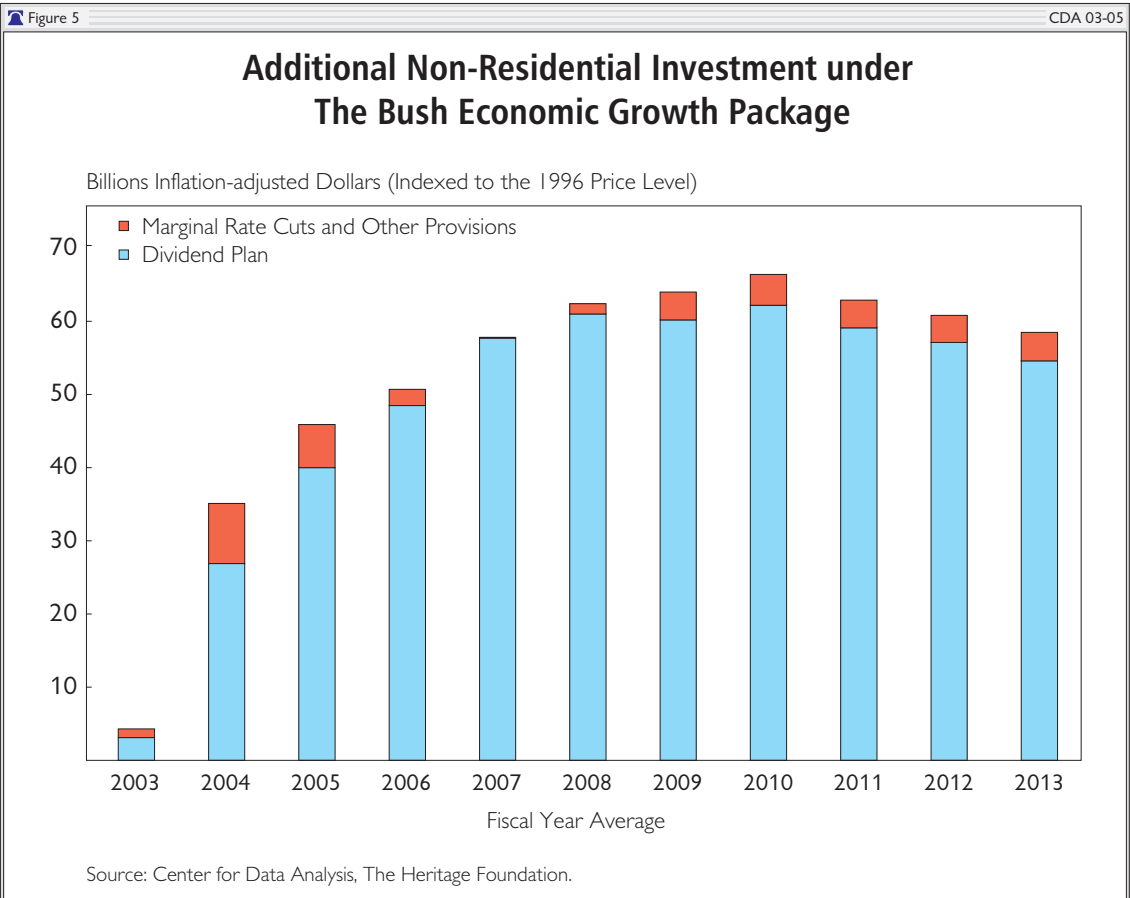
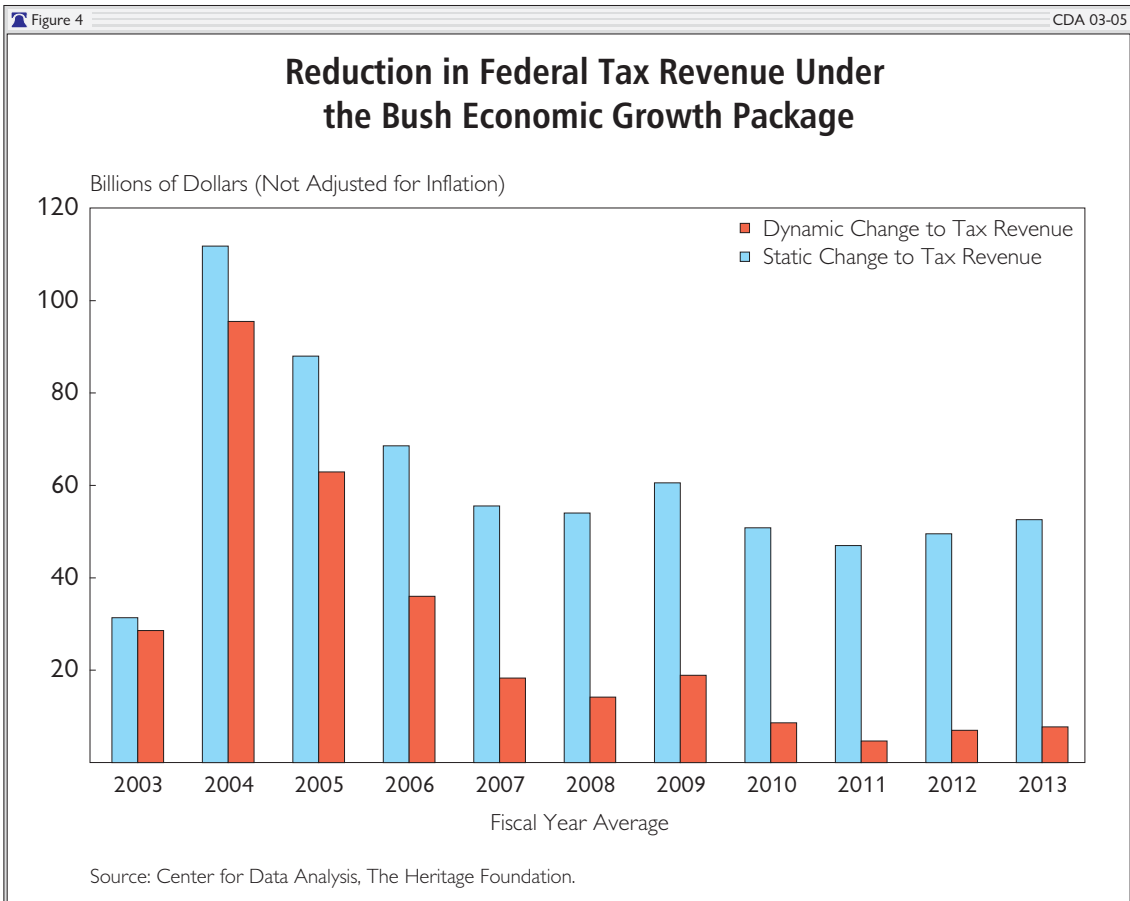
Specifically, the analysis projects that eliminating the double taxation of dividends would:

- **Increase GDP.** GDP would increase by an inflation-adjusted average of \$51 billion from FY 2004 through FY 2013. This figure represents roughly 73 percent of the Economic Growth Package’s projected additional GDP. (See Figure 1.)
- **Create more job opportunities.** The dividend provision accounts for 577,000 (68 percent) of the plan’s projected total job growth of 844,000. (See Figure 2.) This increase in jobs would correspond to an average decline in the unemployment rate of 0.4 percent per year over these 10 fiscal years.

- **Increase disposable personal income.** Disposable personal income would increase by an inflation-adjusted average of more than \$77 billion from FY 2004 through FY 2013, representing 64 percent of the plan’s projected average increase. For a family of four, the increase in disposable income resulting from the dividend component would average at least \$1,054. (See Figure 3.)
- **Provide additional investment.** The dividend component of the President’s plan would contribute an average of almost \$53 billion in additional non-residential investment between FY 2004 and FY 2013. (See Figure 5.) This average shows that the dividend element accounts for approximately 90 percent of the plan’s projected investment increase. By FY 2013, the plan’s dividend component would account for about 95 percent (\$327 billion) of the increase to the nation’s capital stock.

9. The term “double taxation” refers only to the federal taxation of dividends. When state and local taxes are considered, there are more than two layers of taxation on dividend income. However, the President’s proposal eliminates only the personal federal layer of this taxation.







Economists have long argued that the double taxation of dividends reduces the after-tax return on capital in the nation's economy and thus discourages corporate investment—including purchases of new business equipment and machinery.<sup>10</sup> This reduced corporate investment weakens economic growth. Recognizing that eliminating the double taxation would produce greater corporate investment and economic growth, several nations—including Australia, France, Italy, Canada, Germany, Japan, and the United Kingdom—have abolished or reduced their double taxation of corporate dividends.<sup>11</sup>

Under current law, corporations pay dividends to their shareholders out of after-tax profits. This dividend income, despite being taxed at the corporate level, is taxed again as personal income on shareholders' individual income tax returns. This added layer of taxation can have several deleterious effects.

The clearest economic effect of this tax is that it raises the cost of capital, making it more expensive for firms to invest. By eliminating this duplicate layer of taxation, the President's plan would lower the cost of capital. Reducing the cost of capital (the price of investment) allows corporate managers to invest more, even in the face of increased risk.

For any given set of investment projects, a firm's cost of capital can be thought of as a hurdle rate. A capital project that is not expected to return at least the cost of capital will not be undertaken because it does not clear the hurdle. After lowering the cost of capital, projects which previously failed to clear the hurdle rate would then do so.<sup>12</sup> As firms invest in more capital projects, they hire additional workers and the economy expands.

## Macroeconomic Effects of the Entire Economic Growth Package

Table 2 in the Appendix contains a year-by-year reporting of key economic results from the CDA's dynamic analysis of the Economic Growth Package. Unless otherwise noted, all amounts discussed below are adjusted for inflation and represent fiscal year differences compared to a baseline forecast. These results suggest that implementing the plan would:

- **Increase GDP.** GDP would increase by an average of at least \$69 billion from FY 2004 through FY 2013. (See Figure 1.) GDP is projected to be \$84 billion higher in 2004 and \$81 billion higher in 2005.
- **Create more job opportunities.** The President's plan is projected to add an average of approximately 844,000 jobs from FY 2004 through FY 2013. (See Figure 2.) Furthermore, the plan is projected to increase employment by 997,000 jobs in 2004 and 1,036,000 jobs in 2005. Over this same 10-year period, the Economic Growth Package's increase in jobs would correspond to an average decline of 0.5 percent in the unemployment rate.
- **Increase disposable personal income.** Disposable personal income is projected to increase by an average of \$121 billion from FY 2004 through FY 2013, with a projected increase of \$179 billion in 2004. For a family of four, disposable income is projected to increase by an average of \$1,653 over the 10 years. (See Figure 3.)
- **Add to investment.** Non-residential investment is projected to increase an average of \$57 billion from FY 2004 through FY 2013. (See Figure 5.) By FY 2013, net physical capital stock would be almost \$17 trillion, roughly 2

10. For academic studies on the economic effects of federal double taxation of dividends, see James M. Poterba, "Tax Policy and Corporate Saving," *Brookings Papers on Economic Activity* No. 2, 1987, pp. 455-515; Peter Birch Sorensen, "Changing Views of the Corporate Income Tax," *National Tax Journal*, Vol. 48, Issue 2 (June 1995), pp. 279-294; James M. Poterba and Lawrence H. Summers, "The Economic Effects of Dividend Taxation," National Bureau of Economic Research *Working Paper* No. 1353, 1984; and James M. Poterba and Lawrence H. Summers, "New Evidence That Taxes Affect the Valuation of Dividends," *The Journal of Finance*, Vol. 39, Issue 5 (December 1984), pp. 1397-1415.

11. Deborah Thomas and Keith Sellers, "Eliminate the Double Tax on Dividends," *Journal of Accountancy*, November 1994; Ervin L. Black, Joseph Legoria, and Keith F. Sellers, "Capital Investment Effects of Dividend Imputation," *The Journal of the American Taxation Association*, Vol. 22, Issue 2 (2000), pp. 40-59.

12. For more information on hurdle rates, see Norbert J. Michel, "Everyone Profits from Hurdling Dividends," Heritage Foundation *Web Memo* No. 248, April 3, 2003, at [www.heritage.org](http://www.heritage.org).

percent above baseline projections. For this same 10-year period, the Economic Growth Package is projected to lower the user cost of capital by an average of 4.0 percent compared to the baseline forecast.

### Fiscal Effects of the Entire Economic Growth Package

The economic analysis in this report is based initially on conventional, or static, estimates of the fiscal effects of the proposed tax law changes. This method assumes that federal tax policy does not affect economic growth and has been used by the Joint Committee on Taxation (JCT) and the Congressional Budget Office. Because the static approach does account for some of the ways taxpayers alter their tax reporting and filing in response to changes in tax law, it provides an excellent starting point for performing dynamic analysis.

For example, a static estimate might include the effects of taxpayers' shifting compensation from taxable to tax-exempt (or tax-deferred) forms in response to certain tax law changes. However, it does not take into account the way investors and workers alter their consumption, investment, saving, and work effort in response to changes in tax policy.<sup>13</sup> Such changes in taxpayers' behavior could affect important macroeconomic variables, including employment, personal income, and GDP.

Therefore, the CDA extends the static approach by also using a dynamic model to analyze the effects of tax policy proposals. For example, if a tax rate reduction were to strengthen national economic growth, the resulting larger tax base could actually increase tax collections, which could partially offset the federal revenue reduction caused by the lower rate. The CDA's more complete

approach accounts for the interactions between these economic and fiscal effects.

The CDA analysis shows that there can be a substantial difference between dynamic and static estimates of the budgetary effects for plans such as the Economic Growth Package. Specifically, the CDA forecasts that:

- **Higher economic growth lowers the Treasury's static revenue effect by 57 percent.** Static estimates suggest that the Economic Growth Package would reduce federal revenue by about \$638 billion from FY 2004 through FY 2013.<sup>14</sup> However, a more realistic estimate is that the proposal would reduce federal revenue during the period by a total of \$274 billion. (See Figure 4.) The difference between these static and dynamic estimates arises because the improved economic growth caused by the President's plan is projected to increase the number of workers and the overall level of income. These increases result in an expanded tax base and higher tax collections than would be predicted using a static approach. (See Table 2c.)
- **A federal surplus will be maintained within the 10-year budget window.** On-budget, the federal government is projected to move from deficit to surplus within the 10-year budget window. By 2013, the federal on-budget surplus is projected to be more than \$337 billion. Off-budget, the federal government is projected to maintain a surplus throughout the 10-year budget window. (See Table 2c.)

### The Possibility of "Crowding Out"

The "crowding out theory" of budget deficits suggests that higher government debt will lead to higher interest rates and reduced economic growth. According to this theory, government budget deficits shrink the supply of credit in pri-

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13. For a discussion of the shortcomings of static analysis of the effects of tax policy changes, see Daniel J. Mitchell, "The Correct Way to Measure the Revenue Impact of Changes in Tax Rates," Heritage Foundation *Backgrounder* No. 1544, May 3, 2002, at [www.heritage.org/Research/Taxes/BG1544.cfm](http://www.heritage.org/Research/Taxes/BG1544.cfm). See also "The Argument for Reality-Based Scoring," Heritage Foundation *Web Memo* No. 92, March 29, 2002, at [www.heritage.org/Research/Taxes/WM92.cfm](http://www.heritage.org/Research/Taxes/WM92.cfm), and Daniel R. Burton, "Reforming the Federal Tax Policy Process," Cato Institute *Policy Analysis* No. 463, December 17, 2002, at [www.cato.org/pubs/pas/pa-463es.html](http://www.cato.org/pubs/pas/pa-463es.html).

14. This amount is slightly different from the CBO definition of the Economic Growth Package, which includes a provision for personal reemployment accounts. Based on this definition, the CBO states that the Treasury's static federal revenue reduction for the plan is \$642 billion. See Table 11, footnote D, in *An Analysis of the President's Budgetary Proposals for Fiscal Year 2004*, p. 46, at [www.cbo.gov](http://www.cbo.gov).

vate markets. This reduction in supply, in turn, leads to higher prices—interest rates—in private credit markets.

Nonetheless, historical evidence suggests that “crowding out” effects are rather negligible as long as fiscal policies do not produce large economic imbalances, such as extremely high debt-to-GDP ratios. The projected average debt-to-GDP ratio in the CDA analysis is not high by historical standards,<sup>15</sup> suggesting that the benefits of implementing the Economic Growth Package should far outweigh any corresponding negative crowding out effects. Furthermore, the projections indicate that the plan’s long-term economic growth would achieve an on-budget federal surplus within the 10-year budget window and maintain an off-budget surplus throughout the 10-year window.<sup>16</sup>

### COMPARISON WITH OTHER PLANS

Some legislators have called for tax cuts lasting two years or less and tax rebates in order to increase consumption and move the economy out of a slow-growth phase.<sup>17</sup> However, such calls for temporary tax cuts and rebates ignore the bulk of economic theory on lifetime consumption and the recent experience with tax rebates. Both have indi-

cated that rebates and other temporary tax reductions are generally not consumed as if they were ordinary income. Instead, they are used to reduce debt or increase saving—an effect precisely the opposite of the one intended.<sup>18</sup>

The Economic Growth Package, however, would more likely be perceived as providing long-term reductions in marginal tax rates. These long-term reductions, consequently, are more likely to be viewed by economic agents as a permanent increase in income. Taxpayers benefiting from long-run, rather than temporary, tax relief are likely to spend their increased disposable income at the same rate as they do the rest of their personal income. More important, lowering marginal tax rates provides individuals with a higher after-tax return on working and saving by allowing them to keep more of the next dollar they earn.

CDA analysts used the DRI–WEFA model to examine the difference between temporary and long-term tax reductions. The model was used to estimate the effects of Senator Thomas Daschle’s proposal (S. 414), which employs one-year, targeted tax cuts to boost economic growth.<sup>19</sup> This analysis suggests that the Daschle plan would cre-

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15. See Figure 15.

16. For a discussion of the plan’s fiscal effects on national saving, see the Appendix.

17. For example, both Democratic leaders in the U.S. Congress have proposed one-time tax rebates as important elements of their own economic growth plans. Democratic House leader Nancy Pelosi (D–CA) proposed a refundable tax rebate of \$300 per adult in a family, up to \$600 per family. See Office of the House Democratic Leader, “House Democratic Economic Stimulus Plan,” January 6, 2003, at [www.house.gov/budget\\_democrats/analyses/econ\\_stimulus/house\\_dem\\_stimulus\\_plan.pdf](http://www.house.gov/budget_democrats/analyses/econ_stimulus/house_dem_stimulus_plan.pdf) (March 23, 2003). On February 14, 2003, Senator Thomas Daschle (D–SD) introduced a tax rebate of \$300 per adult in a family and \$300 for every child, up to \$1,200 per family. See Library of Congress, “S-414, Economic Recovery Act of 2003,” February 14, 2003, at [thomas.loc.gov](http://thomas.loc.gov).

18. National Bureau of Economic Research economists Matthew D. Shapiro and Joel Slemrod analyzed data on the University of Michigan Survey of Consumers to study the consumption effects of the tax rebate component of the 2001 EGTRRA tax cut. They found that only 22 percent of responding households were planning to spend the rebate. In addition, Shapiro and Slemrod found that the likelihood of spending varied only slightly across income levels and actually *increased* with income level. It was also slightly higher among households owning stock than among non-stockholding households. This finding is consistent with the holdings of modern economic consumption theory, which maintains that most people do not base their consumption decisions on their current level of income, but instead on their current estimate of their *lifetime* level of income. Thus, people receiving a windfall, such as a temporary personal income tax reduction, are likely to save a significant share of that windfall and increase consumption slowly afterward. Conversely, people suffering a temporary reduction in income or wealth, such as a temporary personal income tax increase, tend to reduce consumption slowly and decrease savings in order to maintain their previous level of consumption. See Robert P. O’Quinn, “The Effects of the Duration of Federal Tax Reductions: Examining the Empirical Evidence,” Joint Economic Committee, February 2002, p. 2, at [www.house.gov/jec/tax.htm](http://www.house.gov/jec/tax.htm). For more on the shortcomings of tax rebates as a form of economic stimulus, see Norbert Michel, “Fact v. Fiction: Tax Rebates,” Heritage Foundation *Web Memo* No. 192, January 27, 2003, at [www.heritage.org/Research/Taxes/wm192.cfm](http://www.heritage.org/Research/Taxes/wm192.cfm).

19. See William W. Beach, “A Side-by-Side Comparison of President Bush’s and Senator Daschle’s Plans to Boost Economic Growth,” Heritage Foundation *Web Memo* No. 231, March 20, 2003, at [www.heritage.org/research/taxes/wm231.cfm](http://www.heritage.org/research/taxes/wm231.cfm).

ate fewer jobs and less GDP than the President's proposal, particularly in the long run. For example, the CDA projects that the Daschle plan would add 545,000 jobs by the end of calendar year 2003, far less than the 844,000 jobs projected for the Bush plan in calendar year 2003.<sup>20</sup> The 10-year averages for growth in jobs and GDP under the two plans exhibit an even greater disparity.

For instance, for calendar years 2004 through 2013, the Daschle plan is projected to bring about an average increase of 22,100 jobs. On the other hand, the President's Economic Growth Package is estimated to add an average of 787,000 jobs for calendar years 2004 through 2013. Over the same 10-year period, the Bush plan is projected to provide an average of \$69 billion in additional GDP, while the Daschle plan adds only an estimated \$3.4 billion to GDP.

## COMPARISON WITH OTHER FORECASTS

Simulations of the President's proposal have been performed by several other groups, including the Business Roundtable (BRT),<sup>21</sup> Decision Economics (DE), Global Insight (GI), and Macroeconomic Advisers (MA). This section compares the CDA forecast to the forecasts of these other groups.<sup>22</sup> Table 1 summarizes these comparisons.

In general, the results of the simulations agree that the President's Economic Growth Package would bolster economic and employment growth in the early years. However, the CDA and BRT simulations find sustained improvement, while the GI and MA simulations find that the plan's benefit would decline after the initial years. The two forecasts finding sustained improvement take account of both the demand-side and supply-side effects of

the plan, while the two finding declining improvement take account principally of the plan's demand-side effects.

## Aggregate Demand vs. Aggregate Supply

The BRT appears to have focused on both short-term demand and long-term supply-side incentives.<sup>23</sup> For instance, John J. Castellani notes that "The dividend component of this package is the key driver of economic growth, as it will consistently and continually pump fuel into the economy over the long-run."<sup>24</sup> In fact, BRT's forecasted levels of GDP and employment remain well above baseline in both the short and long terms, with larger increases in the first two years. The CDA, the only other group that focused on both demand and supply-side incentives throughout the 10-year budget window, forecasted trends similar to those projected by BRT.

In contrast, GI and MA both appear to have focused more on demand-side consequences rather than supply-side incentives. For example, GI states that "In our model, the policy works its magic mainly through stimulating consumption, although it also gives investment in equipment and software a modest short-term boost."<sup>25</sup> Similarly, MA states that "Initially the plan would stimulate aggregate demand significantly by raising disposable income, boosting equity values, and reducing the cost of capital. However, the tax cut also reduces national saving directly while offering little new, permanent incentive for either private saving or labor supply."<sup>26</sup>

## Comparisons of Economic Effects<sup>27</sup>

The average inflation-adjusted additional GDP forecasted for FY 2003 through FY 2007 by the CDA and GI is \$61.0 billion and \$65.5 billion,

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20. Calendar year results were used for comparison purposes only and are slightly different from the fiscal year results shown in Table 1.

21. This simulation was performed for the Business Roundtable by PricewaterhouseCoopers using the Inforum model at the University of Maryland.

22. As of this writing, CDA analysts do not have sufficient information to evaluate Decision Economics' forecast.

23. Business Roundtable, "BRT Study on Economic Jobs and Growth Plan," January 21, 2003, at [www.brt.org/pdf/PWC20030130/PWCMarylandStudy.pdf](http://www.brt.org/pdf/PWC20030130/PWCMarylandStudy.pdf) (March 15, 2003).

24. *Ibid.*, p. 2.

25. Patrick Newport, "Bush Plan Boosts Short-term U.S. Growth, But Adds to Deficits," *Global Insight*, February 28, 2003.

26. Macroeconomic Advisers, *A Preliminary Analysis of the President's Jobs and Growth Proposals*, Special Analysis, January 10, 2003, p. 2.

**Bush Economic Growth Package Forecast Comparisons Difference Compared to Baseline Forecasts - (part a)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2003-04 Average	2003-07 Average	2003-12 Average
<b>DIFFERENCE IN REAL GDP (BILLIONS 1996\$)</b>														
<b>CDA</b>														
FY	11.4	84.1	81.1	67.8	60.8	62.5	69.1	69.8	64.3	65.6	69.1	47.7	61.0	63.7
BRT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CEA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
GI														
FY	11.3	82.8	110.2	83.4	39.9	37.0	32.8	34.1	39.0	53.0	n.a.	47.1	65.5	52.4
MA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>DIFFERENCE IN REAL GDP GROWTH RATE</b>														
<b>CDA</b>														
CY	0.3	0.6	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.1	0.0	n.a.	0.4	0.1	0.0
FY	0.1	0.7	0.0	-0.2	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.4	0.1	0.0
BRT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CEA														
CY	0.4	1.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.2	n.a.
DE														
Accommodating Fed														
CY	0.2	1.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.2	n.a.
Non-accommodating Fed														
CY	0.2	1.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.1	n.a.
GI														
CY	0.2	0.8	0.1	-0.5	-0.3	-0.1	0.0	0.0	0.0	0.1	n.a.	0.5	0.1	0.0
MA														
CY	0.5	1.0*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.0	n.a.

Note: \*Table 1 in the MA report shows an average of 1.0, but the text states that "the plan would raise the level of real GDP by 1.6%..." Macroeconomic Advisers, *A Preliminary Analysis of the President's Jobs and Growth Proposal*, January 10, 2003, p. 2.

Sources: BRT: The Business Round Table, "BRT Study on Economic Jobs and Growth Plan," January 21, 2003; CEA: Council of Economic Advisers, "Strengthening America's Economy, The President's Jobs and Growth Proposals," February 4, 2003; DE: Decision Economics, Inc., study prepared for the Office of the Vice-President of the United States of America, January 20, 2003; GI: Global Insight Incorporated, UOCLT1|bushTAXCUT database, January 15, 2003; MA: Macroeconomic Advisers, *A Preliminary Analysis of the President's Jobs and Growth Proposals*.

**Bush Economic Growth Package Forecast Comparisons Difference Compared to Baseline Forecasts - (part b)**

DIFFERENCE IN NOMINAL GDP (BILLIONS 1996\$)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2003-04 Average	2003-07 Average	2003-12 Average
	CDA	35.8	128.2	162.7	178.0	193.3	205.4	220.6	221.3	211.5	205.8	n.a.	82.0	82.0
CY	14.8	115.0	155.0	174.4	188.3	202.6	217.8	223.1	213.6	207.2	n.a.	64.9	64.9	171.2
BRT	76.0	281.0	200.0	91.0	90.0	125.0	167.0	176.0	176.0	179.0	n.a.	178.5	178.5	156.1
CEA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
GI	24.0	135.5	191.3	166.0	148.5	155.8	163.5	175.3	201.6	249.2	n.a.	79.7	79.7	161.1
CY	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

DIFFERENCE IN EMPLOYMENT (THOUSANDS)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2003-04 Average	2003-07 Average	2003-12 Average
	CDA	260	1,031	986	899	753	784	792	778	739	720	n.a.	646	786
CY	844	946	940	701	794	794	795	763	731	714	n.a.	895	845	802
BRT	197	997	1,035	971	790	778	796	781	742	741	805	597	798	783
CY	800	2,900	1,800	300	100	500	800	800	700	700	n.a.	1,850	1,180	940
CEA	190	1,090	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	991	n.a.
CY	510	891	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DE	61	778	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	941	n.a.
Accommodating Fed	55	742	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	660	n.a.
Non-accommodating Fed	116	801	1,173	941	510	348	301	300	348	472	n.a.	459	708	531
CY	246	976	1,248	718	435	307	302	303	387	523	n.a.	611	725	545
MA	242	894	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21	n.a.
CY	580	1,365	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CY 4th Quarter														

Sources: BRT: The Business Round Table, "BRT Study on Economic Jobs and Growth Plan," January 21, 2003; CEA: Council of Economic Advisers, "Strengthening America's Economy: The President's Jobs and Growth Proposals," February 4, 2003; DE: Decision Economics, Inc., study prepared for the Office of the Vice-President of the United States of America, January 20, 2003; GI: Global Insight Incorporated, UQCCL11bushTAXCUT database, January 15, 2003; MA: Macroeconomic Advisers, A Preliminary Analysis of the President's Jobs and Growth Proposals.

**Bush Economic Growth Package Forecast Comparisons Difference Compared to Baseline Forecasts - (part c)**

PERCENT DIFFERENCE IN UNEMPLOYMENT RATE	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2003-04 Average	2003-07 Average	2003-12 Average
	CDA	-0.1	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	n.a.	-0.4	-0.5
CY	0.0	-0.5	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.3	-0.5	-0.5
FY 4th Quarter														
BRT	-0.6	-2.0	-1.2	-0.2	-0.1	-0.3	-0.5	-0.5	-0.4	-0.4	n.a.	-1.3	-0.8	-0.6
CY	-0.1	-0.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-0.5	n.a.
CEA														
CY	0.0	-0.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-0.5	n.a.
DE														
Accommodating Fed														
CY	0.0	-0.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-0.4	n.a.
Non-accommodating Fed														
CY	-0.1	-0.4	-0.5	-0.4	-0.2	-0.1	-0.1	-0.1	-0.1	-0.2	n.a.	-0.2	-0.3	-0.2
GI														
CY	-0.2	-0.6**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-0.4	n.a.
MA														
CY														

DIFFERENCE IN FEDERAL SURPLUS/DEFICIT	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2003-04 Total	2003-07 Total	2003-12 Total
	CDA	-29	-99	-81	-67	-56	-52	-56	-46	-42	-43	-42	-128	-332
FY														
BRT	-16	-65	-65	-56	-59	-52	-39	-30	-30	-34	n.a.	-81	-262	-446
CY	-31	-88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-166	n.a.
CEA														
FY	-32	-99	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-249	n.a.
DE														
Accommodating Fed														
FY	-32	-99	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-298	n.a.
Non-accommodating Fed														
FY	-24	-118	-68	-48	-52	-61	-80	-90	-96	-103	n.a.	-142	-310	-740
GI														
FY	-55	-61	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-116	-311	n.a.
MA														
FY														

Note: CDA-Center for Data Analysis; BRT-Business Round Table; CEA-Council of Economic Advisors; DE-Decision Economics; GI-Global Insight; MA-Macroeconomic Advisors. Unless otherwise specified all estimates are expressed as an average of quarterly values for the year. \*\*Table 1 in the MJA report shows an average change of -0.6 percentage points but the text states that the plan would "reduce the unemployment rate by 0.8 percentage points." Macroeconomic Advisors, LLC, *A Preliminary Analysis of the President's Jobs and Growth Proposal*, January, 2003, p.2.  
 Sources: BRT: The Business Round Table, "BRT Study on Economic Jobs and Growth Plan," January 21, 2003; CEA: Council of Economic Advisors, "Strengthening America's Economy, The President's Jobs and Growth Proposals," February 4, 2003; DE: Decision Economics, Inc., study prepared for the Office of the Vice-President of the United States of America, January 20, 2003; GI: Global Insight Incorporated; UQCLT11 bushTAXCUT database, January 15, 2003; MA: Macroeconomic Advisors, *A Preliminary Analysis of the President's Jobs and Growth Proposals*.

respectively. (See Table 1.) However, the annual average additional GDP projected by GI and the CDA for the later years exhibits a larger difference. From 2008 through 2012, the CDA and GI project higher average GDP of \$66.3 billion and \$39.2 billion, respectively, above baseline.

MA reported GDP growth rates for select years from 2003 through 2017 but did not report the actual level of GDP forecasted for all years.<sup>28</sup> While MA forecasts GDP growth rates below baseline for several years, there is no way to determine, based on the reported information, whether the actual level of GDP is above or below baseline. The CDAs forecasted GDP growth rates, for instance, are below baseline by 0.2 percentage point in 2006 and 0.1 percentage point in 2007, while its projected level of real GDP is above baseline by \$68 billion in 2006 and \$61 billion in 2007.

Another key economic variable to compare is the level of employment. The average numbers of additional jobs forecasted for calendar years 2003 through 2007 by the CDA and GI are 763,000 and 708,000, respectively. Yet the averages projected for the years 2008 through 2012 by the CDA and GI are 200,800 and 354,000, respectively. As a result, GI's forecasted average job growth for 2003 through 2012 is lower than the CDAs estimate: 531,000 versus 774,000.

BRT, the only other group to mention strong supply-side effects explicitly in its analysis, projects employment growth similar to that forecasted by the CDA for the long term. For calendar years 2008 through 2012, BRT forecasts an average of 700,000 additional jobs, almost twice as high as GI's calendar years 2008 through 2012 estimate. The unemployment rate reported by MA also suggests that they focused more heavily on demand-side consequences, reporting an unem-

ployment rate below baseline through 2007 but above baseline from 2008 through 2017.<sup>29</sup>

### Comparisons of Fiscal Effects

Both GI and the CDA project a similar dynamic federal revenue reduction in the earlier years of the 10-year budget window. For example, from FY 2003 through FY 2007, the CDA and GI forecast a dynamic federal revenue reduction of \$241 billion and \$219 billion, respectively. However, from FY 2008 through FY 2012, the CDA and GI project a federal revenue reduction of \$53 billion and \$170 billion, respectively. Similar patterns also exist in the estimated effects on the federal surplus.

For FY 2003 through FY 2007, the CDA and GI project reductions in the federal surplus of \$332 billion and \$310 billion, respectively. From FY 2008 through FY 2012, however, the CDA and GI estimate reductions in the federal surplus of \$239 billion and \$430 billion, respectively. Furthermore, from calendar years 2003 through 2007, BRT and MA forecast dynamic federal surplus reductions of \$262 billion and \$311 billion, respectively.

### Federal Reserve Reaction

The CDA assumed that the President's proposal would not significantly interfere with the Federal Reserve's goal of maintaining price stability in a growing economy.<sup>30</sup> GI, however, modeled a non-accommodating Federal Reserve response, meaning that the Fed raised interest rates soon after the implementation of the plan and continued to do so in several of the following years.<sup>31</sup>

Also, in the short run, MA held the nominal money supply to baseline, allowing "changes in fiscal stimulus to be reflected in GDP."<sup>32</sup> In the long run, however, MA modeled a rise in interest

27. Unless otherwise noted, years in this section are federal fiscal years.

28. MA also reported a decline in *potential* GDP for 2017, a measure that could be mistaken for actual GDP. Potential GDP, however, is different from actual GDP in that it is a *theoretical* measure of the level of real output that an economy *could* produce.

29. Macroeconomic Advisers, *A Preliminary Analysis*, chart on p. 7.

30. This assumption required CDA analysts to adjust downward, compared to the baseline, a model variable controlling the Federal Funds Rate (see the Appendix for details); a downward adjustment corresponds to a more accommodating monetary policy than is built into the model.

31. For a simulation of the Democrat plan, however, GI modeled an accommodating Federal Reserve that held interest rates to baseline. See Newport, "Bush Plan Boosts Short-term U.S. Growth," p. 3.

32. Macroeconomic Advisers, *A Preliminary Analysis*, p. 6.



rates as a pro-cyclical response to higher economic growth. Consequently, both GI and MA projected that the Federal Reserve would raise interest rates in response to higher economic growth, thus stifling employment and GDP.

### **Dividend Payout Ratio**

The CDA and BRT followed U.S. Department of the Treasury estimates, increasing the dividend payout rate by 2 percentage points above the baseline in 2004 and 4 percentage points above baseline from 2005 through 2013.<sup>33</sup> GI, on the other hand, did not assume “any increase in dividend payout above what the model wants to give.”<sup>34</sup>

### **CONCLUSION**

Due mainly to its elimination of the double tax on corporate dividends, the President’s Economic Growth Package is projected to increase the num-

ber of workers and the overall level of income in the United States throughout the next 10 years. Relative to the baseline forecast, from 2004 through 2013, the CDA forecasts that GDP would average an additional \$69 billion, employment would average an added 844,000 jobs, and disposable income would average an additional \$121 billion. Consequently, this higher economic growth would result in an expanded tax base, suggesting that the true federal revenue reduction would be only about \$274 billion—far less than the U.S. Treasury’s static estimate of \$638 billion.

—William W. Beach is Director of, and Ralph A. Rector, Ph.D., is Research Fellow and Alfredo Goyburu and Norbert J. Michel are Policy Analysts in, the Center for Data Analysis at The Heritage Foundation.

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33. Business Roundtable, “BRT Study on Economic Jobs and Growth Plan.”

34. Newport, “Bush Plan Boosts Short-term U.S. Growth.” To examine the effects of increasing the payout rate, CDA analysts performed a sensitivity analysis in which the dividend payout rate was held to baseline. The results from this alternative simulation were not materially different from those reported in the paper. For details, see the Appendix.

## APPENDIX

This Appendix provides an overview of theoretical issues relevant to macroeconomic modeling of the Economic Growth Package. In addition, it includes specific modeling techniques used to apply these theoretical perspectives to the DRI–WEFA U.S. Macroeconomic Model.

### ECONOMIC MODEL

Heritage Foundation economists in the Center for Data Analysis (CDA) used the DRI–WEFA model to analyze the fiscal and economic effects of the Economic Growth Package.<sup>35</sup> The September 2002 forecast from the DRI–WEFA U.S. Macroeconomic Model was modified to make it consistent with the long-term budget and economic projections published by the Congressional Budget Office in August 2002.<sup>36</sup> CDA analysts used this forecast as the baseline by which to analyze the effects of the President’s proposal. Since both the DRI–WEFA model and the CBO projections terminated in 2012, CDA analysts extended its forecasts to FY 2013 using a linear trend of the dividend component forecast.<sup>37</sup>

CDA economists first simulated the dividend exclusion component as if it were a separate proposal. Then changes associated with other components of the plan were “stacked” upon those changes made for the dividend component. This method allowed the researchers to identify the effects of the dividend plan separately from those of the remaining components. In each case, the

effects of the static decline in federal revenue were introduced into the DRI–WEFA model.

CDA researchers applied information from three sources to calculate the year-by-year static revenue reductions resulting from the President’s proposals. The first was the U.S. Department of the Treasury’s year-by-year cost estimates of the plan spanning federal FY 2003 through FY 2008, broken down by plan component. The second was the Treasury Department’s cumulative 11-year cost estimate of the plan, spanning federal FY 2003 to FY 2013, broken down by plan component.<sup>38</sup> CDA analysts independently estimated these components for FY 2009 through FY 2013.<sup>39</sup>

### DIVIDEND TAX PROPOSAL

#### User Cost of Capital

The key element of the President’s plan is the proposal to end the double taxation of corporate dividends by excluding dividend income from the personal income tax base. This proposal would affect the rate of capital accumulation in the nation’s economy by reducing the user cost of capital. Calculations by Kevin Hassett<sup>40</sup> and the Council of Economic Advisers<sup>41</sup> indicate that this reform would reduce the user cost of capital by 4 percent to 7 percent for investment in equipment and substantially more for investment in structures. In simulating the dividend component of the Economic Growth Package, CDA analysts used

35. The Center for Data Analysis at The Heritage Foundation used the DRI–WEFA Mark 11 U.S. Macroeconomic Model, owned by Global Insight, to conduct this analysis. The model was developed by Nobel Prize–winning economist Lawrence Klein and several colleagues at the University of Pennsylvania’s Wharton School of Business. The methodologies, assumptions, conclusions, and opinions in this report are entirely the work of Heritage Foundation analysts. They have not been endorsed by, and do not necessarily reflect the views of, the owners of the model.

36. Congressional Budget Office, “The Budget and Economic Outlook: An Update,” August 2002, at [www.cbo.gov/showdoc.cfm?index=3755&sequence=0](http://www.cbo.gov/showdoc.cfm?index=3755&sequence=0) (March 15, 2003).

37. The same rate of growth used to extrapolate the dividend forecast was used to extrapolate the final year of the overall plan because the majority of the other provisions would have expired by 2013.

38. *Budget of the United States Government, Fiscal Year 2004: Analytical Perspectives*, pp. 81, 83.

39. The resulting estimates are similar to those used in Macroeconomic Advisers’ year-by-year estimate of the static revenue effects of the plan. See Macroeconomic Advisers, *A Preliminary Analysis*.

40. Kevin A. Hassett, “Evaluation of Proposals for Economic Growth and Job Creation: Incentives for Investment,” testimony before the Senate Finance Committee, February 12, 2003, at [www.aei.org/news/newsID.15964/news\\_detail.asp](http://www.aei.org/news/newsID.15964/news_detail.asp).

41. R. Glenn Hubbard, “Testimony of R. Glenn Hubbard, Chairman, Council of Economic Advisers, Before the Budget Committee, United States Senate,” February 4, 2003, at [www.senate.gov/%7Ebudget/democratic/testimony/2003/hubbard\\_hrng020403.pdf](http://www.senate.gov/%7Ebudget/democratic/testimony/2003/hubbard_hrng020403.pdf).

an estimate of 5.5 percent as the static assumption for the amount that the dividend tax reform reduces the user cost of capital.<sup>42</sup>

The DRI–WEFA model does not contain a variable that directly reflects the user cost of capital. However, changes in the user cost of capital can be represented by changes in federal rates of taxation on corporate income. Consequently, CDA analysts adjusted one of the federal corporate tax rate variables in order to reflect the reduction in the user cost of capital. However, this adjustment did not change the average federal tax rate on corporate income. The federal average tax rate on corporate income was not altered because the President’s proposal does not call for any change in the statutory corporate tax rate.

### **Reduction in Personal Income Tax Collections**

The President’s plan to end the double taxation of dividends excludes corporate dividend income from the federal personal income tax base. Since the DRI–WEFA model does not provide a direct method for excluding dividends from the personal income tax base, CDA analysts simulated the effect of the proposal by reducing the average federal tax rate on personal income. This variable was reduced by an amount corresponding to the static reduction in personal income tax collections associated with the plan’s dividend component.

### **Increased Dividend Payouts**

The Treasury Department estimates that the President’s dividend proposal would increase the dividend payout rate by 2 percentage points above the baseline in 2004 and 4 percentage points above baseline from 2005 through 2013.<sup>43</sup> CDA researchers took account of this increase by adjust-

ing upward a model variable corresponding to corporate dividends paid to persons.

To examine the effects of increasing the payout rate, CDA analysts performed a sensitivity analysis by conducting an alternative simulation in which the dividend payout rate was not adjusted upward. The alternative simulation projects that the 2004 through 2013 annual average increases in GDP, employment, and disposable income would be \$64 billion, 808,000, and \$109 billion, respectively. The results from this alternative simulation were not materially different from those reported in this study. (See Table 2.)

### **Lowering Marginal Propensity to Consume Out of Increased Disposable Income**

Ending the double taxation of corporate dividends would provide relief to taxpayers directly owning shares in corporate enterprises. These taxpayers typically are persons with relatively higher saving rates and therefore relatively lower marginal propensities to consume. CDA analysts adjusted model variables controlling personal consumption expenditures in order to reduce consumption below the amount that would otherwise have been projected. The goal was to balance the relatively higher tendency to save against the tendency to increase spending due to a growth in net wealth.<sup>44</sup>

The CDA reduced consumption by an amount equal to half of the dividend tax relief during the forecast period. In consultation with Global Insight, Inc., owners of the DRI–WEFA model, CDA analysts balanced the depressive effect of this consumption reduction on GDP by making offsetting adjustments to five component variables of personal income. The combined effect of these changes left personal income within an average of 95 percent of the unadjusted level of personal income.

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42. The observed (dynamic) change in the user cost of capital was not quite 5.5 percent because the reduction in federal revenue and the increased economic activity associated with ending double taxation of corporate dividends would exert upward pressure on the user cost of capital. The CDA simulation of the dividend component alone found that the user cost of capital averaged 5.3 percent lower under the plan than under current law during 2004–2013. The CDA simulation of the Economic Growth Package found that the user cost of capital averaged 4.0 percent lower during 2004–2013.

43. Business Round Table, “BRT Study on Economic Jobs and Growth Plan.”

44. Many economists believe that equity values would rise as a result of ending the double taxation of dividend income and that this rise in stock market values would increase the amount of consumption because of wealth effects.

## Adjustment for Taxation of Additional Dividend Income

Since the DRI–WEFA model does not directly allow the exclusion of dividends from the federal personal income tax base, additional dividend income results in an increase in the tax base above the baseline. CDA analysts used a model variable that accounts for the difference in the definition of National Income and Product Accounts (NIPA) and the unified budget receipts to remove this additional dividend income from federal personal income tax collections, thus lowering total federal revenues under the simulation.

## Non-Residential Fixed Investment

CDA analysts found that the DRI–WEFA model’s response of non-residential fixed investment to the user cost of capital was lower than that supported by recent literature.<sup>45</sup> Consequently, when modeling the dividend component of the President’s plan, researchers adjusted model variables controlling investment. In performing this adjustment, CDA researchers were guided by an assumption that the static elasticity of gross investment with respect to the user cost of capital was  $-1.2$  percent for equipment and  $-0.64$  percent for structures.<sup>46</sup>

The reduction in the user cost of capital could be expected to exert a positive impact on the

nation’s economy by stimulating gross non-residential investment. Recent advances in the modeling of investment behavior show that reductions in the cost of capital brought about through tax policy lead to increased expenditures on business investment. Federal policymakers may find, however, that attempts to reduce the user cost of capital through tax reductions are partially offset by changes in federal fiscal balances.

CDA analysts adjusted model variables controlling investment to account for the possible effect of increased publicly held debt on gross investment. The CDA assumed that 60 cents of every dollar of increased net publicly held debt would displace private gross investment.<sup>47</sup> Therefore, the CDA’s forecasted increases in non-residential fixed investment are lower than they would have been in the absence of crowding out.<sup>48</sup>

## Wages

CDA researchers initially found that the forecasted ratio of additional GDP to additional employment was high by historical standards. Based on consultations with Global Insight, Inc., CDA analysts adjusted a model variable controlling wages to adjust this ratio. Left unadjusted, the higher ratio of GDP to employment would have increased federal revenues in the simulation.

45. CDA analysts performed tests of the DRI–WEFA model and found that even when accounting for crowding out, the response within the model of non-residential fixed investment to changes in the user cost of capital was weaker than is supported by recent literature. For literature citation, see footnote 47.

46. These elasticities are consistent with those found in 1992 by Jason Cummins and Kevin Hassett. Cummins and Hassett’s findings indicate that the effective elasticities were lower because a portion of the increase in investment caused by the reduction in the user cost of capital was assumed to be crowded out by increases in net publicly held debt. On elasticities, see Jason Cummins and Kevin Hassett, “The Effects of Taxation on Investment: New Evidence from Firm Level Panel Data,” *National Tax Journal*, Vol. 45, No. 3 (September 1992), pp. 243–251, at [ntj.tax.org/wwwtax/ntjrec.nsf/4F54FD9041AEC3118525686C00686DFA/\\$FILE/v45n3243.pdf](http://ntj.tax.org/wwwtax/ntjrec.nsf/4F54FD9041AEC3118525686C00686DFA/$FILE/v45n3243.pdf) (March 17, 2003). On crowding out, see footnote 47.

47. In other words, the elasticity of non-residential fixed investment with respect to the user cost of capital was applied to investment net of crowding out. The rule of thumb that every dollar increase in net publicly held debt displaces 60 cents of private investment is reported in the 2003 *Economic Report of the President*. This rule of thumb is distinct from the crowding out effect on interest rates. Even using this rule of thumb, the effect of crowding out on interest rates can be negligible. See *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, 2003), p. 56.

48. The simulation found that the dividend plan alone would increase the net physical capital stock by 2.0 percent in FY 2013. From FY 2004 through FY 2013, the user cost of capital would fall by an average of 5.3 percent and GDP would rise by an average of 0.44 percent. This relationship among changes in the capital stock, the use cost of capital, and GDP is consistent with recent empirical analysis. See Robert S. Chirinko, Steven M. Fazzari, and Andrew P. Meyer, “That Elusive Elasticity: A Long-Panel Approach to Estimating the Price Sensitivity of Business Capital,” Emery University Department of Economics *Working Paper* 02–02, January 2002, at [userwww.service.emery.edu/%7Ecozden/chirinko\\_02\\_02\\_cover.html](http://userwww.service.emery.edu/%7Ecozden/chirinko_02_02_cover.html).

## Imports

CDA analysts initially found that the forecasted ratio of imports to GDP was high by historical standards. Analysts also initially found that the forecasted ratio of imported capital equipment to increased non-residential investment was higher than would be supported by historical averages. Therefore, based on consultations with Global Insight, Inc., CDA analysts adjusted model variables controlling the level of imports.

## Federal Monetary Authority Response

CDA analysts assumed that the dividend exemption plan would not hinder the Federal Reserve's basic objective of maintaining economic growth without disturbing price stability. This assumption necessitated a slightly more accommodating monetary policy than is built into the adapted DRI-WEFA model. Researchers therefore reduced slightly a variable controlling the federal funds rate in the DRI-WEFA model. This change did not prevent the Federal Reserve from responding to the implementation of the plan in the simulation.

## OTHER PROVISIONS IN THE ECONOMIC GROWTH PACKAGE

The remaining components of the President's plan consist of accelerations of the phase-ins for various provisions of the Economic Growth and Tax Reform Reconciliation Act of 2001 (EGTRRA), including reductions in marginal personal income tax rates, marriage penalty relief, widening of the 10 percent tax bracket, and increasing the child tax credit. In addition, the President's plan would increase the amount of the AMT exemption and provide for increased small business expensing. CDA analysts introduced these tax changes into the model by altering the variable controlling the average federal tax rate on personal income. These changes are in addition to those made to account for the dividend exclusion.

## Labor Force Participation Rate

The acceleration of marginal tax rate cuts and the alternative minimum tax hold-harmless provi-

sions would account for most of the reduction in marginal federal tax rates compared to the baseline. The four remaining components are the acceleration of the expansion of the 10 percent bracket, the acceleration of the increase in the child tax credit, the acceleration of marriage penalty relief, and raising the limits on expensing for small businesses. These four tax law changes would alter average federal personal income taxes somewhat but not significantly change marginal rates for most taxpayers.

Economic theory suggests that reductions in marginal personal income tax rates would increase participation in the labor force. The marginal rate cuts would, in turn, benefit the economy by strengthening the incentives to work and save. Stronger economic incentives could be expected to increase the labor force participation of some groups. In fact, microeconomic theory indicates that lowering marginal tax rates on labor income generally increases labor force participation.

One important modeling consideration, therefore, is the responsiveness of labor participation to changes in after-tax income, commonly referred to as the participation labor supply elasticity. A meta-study performed by the Congressional Budget Office examined the range of estimates for this elasticity with respect to after-tax inflation-adjusted income. It found that estimates were as low as 0.1 percent and as high as 0.2 percent.<sup>49</sup>

CDA researchers estimated the amount that the proposal would add to labor market participation by applying an appropriate elasticity to the static reduction of *average* federal personal income tax rates associated with the marginal tax rate cuts and a portion of the AMT provision. Analysts used an estimate in the middle of a range published by the CBO as an appropriate labor supply elasticity. Specifically, for each static 1 percent increase in after-tax labor income, the labor supply was assumed to rise by 0.15 percent. Researchers applied this 0.15 percent rate to the increase in after-tax labor income directly attributable to those provisions in the plan that would reduce marginal personal income tax rates.

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49. See Congressional Budget Office, "Labor Supply and Taxes," January 1996, p. 11, at [www.cbo.gov/ftp-doc.cfm?index=3372&type=1](http://www.cbo.gov/ftp-doc.cfm?index=3372&type=1) (March 15, 2003).

## NATIONAL SAVING

Some economists have expressed concern regarding the impact that tax law changes could have on national saving. One concern is that tax reductions could reduce national saving by lowering the federal surplus component of national saving more than they would raise the private component of saving.<sup>50</sup> The fear is that a reduction in national saving could lead to a fall in the capital stock owned by Americans and a fall in future national income. However, the CDA analysis of the Economic Growth Package found that implementing the plan would raise national saving compared to the baseline during each year of the forecast.<sup>51</sup>

## CDA USE OF THE AUGUST 2002 BASELINE

In performing these simulations, CDA analysts used a baseline derived from the August 2002 economic and budget projections of the CBO. This section examines how the results of the study might have been different if the January 2003 CBO projections had been used to construct the baseline instead of the August 2002 projections.

## Implications for Different Periods

### 2003–2004

In the near term (through FY 2004), this analysis would probably have found a stronger improvement in economic and employment growth if the later forecast had been used. This is because the August projections call for growth of 2.9 percent in real (inflation-adjusted) GDP, while the January 2003 forecast foresees 2.4 percent growth.<sup>52</sup> Slower growth would have indicated an

economy performing further below its potential during 2003 than in the August projections. In such an economic environment, the impact of the plan would likely bring about more growth without straining economic capacity than would be the case in the environment described in the August baseline. It is also likely that using the January baseline would have brought about smaller changes in interest rates.

For the year FY 2004, both sets of forecasts predict the same real GDP growth rate. However, in the January 2003 forecast, that GDP growth would be from a lower base because of the slower growth recorded the previous year, so the economic and employment growth effects that year would also likely have been higher if the January CBO forecast had been used to construct the baseline.

### 2005–2010

In their January projection, the CBO estimates that real GDP in federal FY 2005 will nearly catch up to the real GDP level projected in its August forecast. Real GDP growth for 2005 is projected at 3.5 percent in the January forecast and only 3.1 percent in the August forecast. Consequently, using the January forecast as a baseline rather than the August forecast could have resulted in a finding of slower economic growth in the year 2005. In the five full fiscal years following 2005, the growth rates for GDP follow very similar paths, so it is likely that the use of the August baseline did not materially affect study results for that period.

### 2011–2012

Real GDP growth, profit growth, and wage growth for 2011–2012 declined markedly in the January forecast compared to the August forecast.

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50. See William G. Gale and Peter R. Orszag, "The Economic Effects of Long-Term Fiscal Discipline," Urban-Brookings Tax Policy Center, Discussion Paper, December 17, 2002, at [www.brook.edu/views/papers/gale/20021217.htm](http://www.brook.edu/views/papers/gale/20021217.htm) (March 24, 2003); William G. Gale and Samara R. Potter, "An Economic Evaluation of the Economic Growth and Tax Relief Reconciliation Act of 2001," Brookings Institution, March 2002, at [www.brook.edu/views/articles/gale/200203.htm](http://www.brook.edu/views/articles/gale/200203.htm) (March 24, 2002); and Alan J. Auerbach, "The Bush Tax Cut and National Saving," National Bureau of Economic Research Working Paper No. 9012, December 2002, at [emlab.berkeley.edu/users/auerbach/bushtaxcut.pdf](http://emlab.berkeley.edu/users/auerbach/bushtaxcut.pdf) (March 24, 2003).

51. The CDA analysis includes changes in the state and local government component of national saving. In contrast, Gale and Potter note that "We ignore any induced effects [of the tax cut] on savings by state and local government." Auerbach states that a simplifying assumption used in his analysis was "the omission of the state and local fiscal sector." See Gale and Potter, "An Economic Evaluation of the Economic Growth and Tax Relief Reconciliation Act of 2001," and Auerbach, "The Bush Tax Cut and National Saving."

52. Comparisons of the August 2002 and January 2003 baselines are based on a geometric mean average of the annual growth rates.

The January forecast calls for average real GDP growth of 2.5 percent during that period compared with 3.0 percent growth in the August forecast. Other economic indicators remain essentially unchanged for these years between the two sets of projections. These include the unemployment rate, the three-month Treasury bill rate, and the 10-year Treasury bond rate. Combined, these differences imply that using the January forecast to construct the baseline would likely have led to finding stronger improvement in economic growth under the President's plan for these years. This occurrence is more likely because the economy would be performing further below potential in the January forecast compared to the August forecast.

### **Long-Term Differences**

If the analysis had been performed on a baseline derived from the more recent January 2003 projections, the study would probably have found long-term average results similar to those presented in this paper. This is because of the long-term similarities in the two sets of projections. The similarities indicate the CBO's belief that elements of the economic environment affecting the long term have changed only slightly in the period intervening between the calculations of the two projections.

Over a common 11-year period, the forecasts are very similar in most respects. For example, the August 2002 economic projection shows GDP growing at an average rate of 2.81 percent during 2002–2012, while the later forecast has 2.88 percent. The GDP price index is seen growing at 1.97 percent for 2002–2012 in the earlier projection and at 1.98 percent in the later one. The consumer price index grows at an annual average rate of 2.46

percent in the August projection and 2.34 in the January projection. These similarities indicate that the simulation results would not have been substantially different if the later set of CBO projections had been used.

Unlike other economic indicators, there is a noticeable difference in interest rates between the two economic forecasts. The three-month Treasury bill average interest rate during 2002–2012 declines from 4.4 percent in the August 2002 projection to 4.1 percent in the later. The 10-year Treasury bill average interest rate for the same period also falls from 5.7 percent to 5.5 percent. The interest rate differences indicate that using the January baseline might have led to stronger economic growth than results based on the August baseline. Lower interest rates, for instance, would have indicated that the economy was performing further below its potential in the January projections compared to the August projections.

The broad measures of federal fiscal health are remarkably similar in the two sets of projections. Unified federal revenues in the August forecast total \$28.2 trillion (not adjusted for inflation) during the years 2002–2012 and \$28.0 trillion in the January forecast. This change reflects a 0.7 percent decline over the period. Similarly, spending rises from \$27.4 trillion to \$27.6 trillion between the two forecasts, a 0.7 percent change. Cumulative surpluses fall from \$858 billion during the period to \$470 billion in the later forecast. This reduction represents a 55 percent decline. However, this large decline is deceptive because it reflects very small underlying changes in both the spending and revenue outlooks.

**Economic and Fiscal Effects of the Bush Economic Growth Package - (part a)**

Economic Indicators	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	(Ten-year Budget Average) 2004 - 2013
<b>Gross Domestic Product</b>												
	In Billions of Inflation-adjusted Dollars (Indexed to the 1996 Price Level)											
Forecast	9,645.6	10,033.3	10,343.5	10,655.1	10,987.6	11,338.8	11,707.1	12,071.2	12,438.1	12,814.0	13,203.5	11,559.2
Baseline	9,634.2	9,949.2	10,262.4	10,587.3	10,926.8	11,276.3	11,638.0	12,001.4	12,373.8	12,748.4	13,134.3	11,489.8
Difference	11.4	84.1	81.1	67.8	60.8	62.5	69.1	69.8	64.3	65.6	69.1	69.4
<b>Real GDP Growth Rate</b>												
	Percent Change from Year Ago											
Forecast	3.0	4.0	3.1	3.0	3.1	3.2	3.2	3.1	3.0	3.0	2.9	3.2
Baseline	2.9	3.3	3.1	3.2	3.2	3.2	3.2	3.1	3.1	3.0	2.9	3.1
Difference	0.1	0.7	0.0	-0.2	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
<b>Total Employment</b>												
	In Thousands of Jobs											
Forecast	132,871	135,926	137,667	138,876	140,141	141,716	143,054	144,930	146,801	148,751	150,791.4	142,865.3
Baseline	132,674	134,929	136,631	137,904	139,352	140,938	142,258	144,148	146,060	148,010	149,986.0	142,021.6
Difference	197	997	1,036	972	789	778	796	782	741	741	805.4	843.7
<b>Unemployment Rate</b>												
	In Billions of Dollars (Not Adjusted for Inflation)											
Forecast	5.8	4.9	4.5	4.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Baseline	5.9	5.4	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Difference	-0.1	-0.5	-0.7	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
<b>Disposable Personal Income</b>												
	In Billions of Inflation-adjusted Dollars (Indexed to the 1996 Price Level)											
Forecast	7,210.6	7,510.4	7,626.6	7,752.5	7,907.7	8,109.0	8,335.1	8,549.4	8,702.9	8,898.0	9,103.3	8,249.5
Baseline	7,175.7	7,331.6	7,454.9	7,612.8	7,797.3	8,002.5	8,222.6	8,446.9	8,609.9	8,805.1	9,004.7	8,128.8
Difference	34.9	178.8	171.7	139.7	110.4	106.5	112.5	102.5	93.0	92.9	98.6	120.7
<b>Disposable Income Per Capita</b>												
	In Inflation-adjusted Dollars (Indexed to the 1996 Price Level)											
Forecast	25,682	26,535	26,729	26,956	27,276	27,744	28,286	28,777	29,055	29,465	29,900.5	28,072.4
Baseline	25,558	25,903	26,128	26,471	26,895	27,380	27,905	28,432	28,744	29,157	29,575.9	27,659.1
Difference Per Person	124	632	601	485	381	364	381	345	311	308	324.6	413.3
Difference for Family of Four	496	2,528	2,404	1,940	1,524	1,456	1,524	1,380	1,244	1,232	1,298	1,653
<b>Consumption Expenditures</b>												
	In Billions of Inflation-adjusted Dollars (Indexed to the 1996 Price Level)											
Forecast	6,733.1	6,968.2	7,197.2	7,417.6	7,618.2	7,820.4	8,053.6	8,290.2	8,533.9	8,795.5	9,071.7	7,976.7
Baseline	6,725.7	6,906.1	7,117.5	7,341.0	7,552.7	7,760.0	7,992.9	8,232.8	8,483.2	8,748.8	9,022.7	7,915.8
Difference	7.4	62.1	79.7	76.6	65.5	60.4	60.7	57.4	50.7	46.7	49.0	60.9
<b>Personal Savings</b>												
	In Billions of Inflation-adjusted Dollars (Indexed to the 1996 Price Level)											
Forecast	273.7	325.5	200.5	90.0	28.8	13.2	-5.0	-35.8	-132.1	-205.0	-325.9	-4.6
Baseline	246.6	214.0	115.0	33.6	-9.7	-26.5	-50.4	-74.7	-168.6	-245.6	-357.8	-57.1
Difference	27.1	111.5	85.5	56.4	38.5	39.7	45.4	38.9	36.5	40.6	31.8	52.5
<b>Personal Savings Rate</b>												
	Percent of Disposable Personal Income											
Forecast	3.8	4.3	2.6	1.2	0.4	0.2	-0.1	-0.4	-1.5	-2.3	-3.6	0.1
Baseline	3.4	2.9	1.5	0.4	-0.1	-0.3	-0.6	-0.9	-1.9	-2.8	-4.1	-0.6
Difference	0.4	1.4	1.1	0.8	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.7

Note: Estimates are for fiscal years. Numbers may not sum due to rounding.  
 Source: March 2003 simulations by the Center for Data Analysis of The Heritage Foundation using the DRI-WFEA U.S. Macroeconomic Model. Forecast: Based on CDA calculations and United States Treasury static revenue estimates for 10% bracket expansion, rate reduction, marriage penalty relief, child tax credit expansion, small business expensing, minimum tax relief, and ending of double taxation of corporate earnings. Forecast values were extended through 2013 using a trend forecast.



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**Economic and Fiscal Effects of the Bush Economic Growth Package - (part b)**

More Economic Indicators	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	(Ten-year Budget Average) 2004 - 2013
	<b>Total Unemployment</b>					In Thousands of Persons						
Forecast	8,460	7,226	6,799	6,942	7,160	7,242	7,287	7,361	7,447	7,473	7,395.4	7,233.2
Baseline	8,515	8,017	7,724	7,870	7,946	8,023	8,092	8,158	8,211	8,221	8,231.0	8,049.3
Difference	-55	-791	-925	-928	-786	-781	-805	-797	-764	-748	-835.6	-816.1
<b>Non-residential Investment</b>					In Billions of Inflation-adjusted Dollars (Indexed to the 1996 Price Level)							
Forecast	1,223.0	1,390.9	1,516.6	1,605.6	1,715.4	1,832.2	1,956.6	2,088.4	2,222.6	2,365.4	2,517.7	1,921.1
Baseline	1,218.7	1,355.8	1,470.7	1,554.9	1,657.6	1,769.8	1,892.6	2,022.0	2,159.7	2,304.6	2,459.2	1,864.7
Difference	4.3	35.1	45.9	50.7	57.8	62.4	64.0	66.	62.9	60.8	58.5	56.5
<b>Net Capital Stock - Non-residential</b>					In Billions of Inflation-adjusted Dollars (Indexed to the 1996 Price Level)							
Forecast	9,878.5	10,272.6	10,778.9	11,333.8	11,936.9	12,597.1	13,311.5	14,087.6	14,925.9	15,835.0	16,799.4	13,187.9
Baseline	9,877.4	10,248.8	10,717.0	11,232.2	11,794.6	12,411.8	13,087.3	13,826.8	14,634.2	15,518.1	16,455.4	12,992.6
Difference	1.1	23.8	61.9	101.6	142.3	185.3	224.2	260.8	291.7	316.9	344.0	195.2
<b>User Cost of Capital</b>					Index (1996 Second Quarter = 100)							
Forecast	98.5	98.9	100.7	100.8	101.3	101.6	102.1	102.4	102.5	102.9	103.4	101.7
Baseline	100.1	103.6	103.9	104.0	104.9	105.8	106.5	106.9	107.3	107.6	107.9	105.8
Difference	-1.6	-4.7	-3.2	-3.2	-3.6	-4.2	-4.4	-4.5	-4.8	-4.7	-4.5	-4.2
<b>Consumer Price Index</b>					Percent Change from Year Ago							
Forecast	2.4	2.6	2.7	2.7	2.6	2.5	2.5	2.5	2.4	2.4	2.4	2.5
Baseline	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Difference	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0
<b>Treasury Bill, 3 Month</b>					Annualized Rate							
Forecast	2.4	4.5	5.5	5.7	5.6	5.5	5.4	5.4	5.3	5.3	5.3	5.4
Baseline	2.4	4.4	5.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Difference	0.0	0.1	0.5	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.5
<b>Treasury Bond, 10 Year</b>					Annualized Rate							
Forecast	5.3	6.0	6.3	6.3	6.3	6.2	6.1	6.1	6.1	6.0	6.0	6.1
Baseline	5.3	5.7	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Difference	0.0	0.3	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.4

Note: Estimates are for fiscal years. Numbers may not sum due to rounding.  
 Source: March 2003 simulations by the Center for Data Analysis of The Heritage Foundation using the DRI-WFEA U.S. Macroeconomic Model. Forecast: Based on CDA calculations and United States Treasury static revenue estimates for 10% bracket expansion, rate reduction, marriage penalty relief, child tax credit expansion, small business expensing, minimum tax relief, and ending of double taxation of corporate earnings. Forecast values were extended through 2013 using a trend forecast.

CDA 03-05

Table 2c

**Economic and Fiscal Effects of the Bush Economic Growth Package - (part c)**

(Ten-year Budget Total)  
2004 - 2013

Federal Budget Indicators	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	(Ten-year Budget Total) 2004 - 2013
<b>Federal Tax Revenue</b>												
Forecast	1,927.4	1,985.5	2,178.1	2,347.0	2,500.7	2,648.8	2,794.1	2,961.4	3,240.3	3,518.0	3,821.4	27,995.3
Baseline	1,956.0	2,081.0	2,241.0	2,383.0	2,519.0	2,663.0	2,813.0	2,970.0	3,245.0	3,525.0	3,829.2	28,269.2
Difference	-28.6	-95.5	-62.9	-36.0	-18.3	-14.2	-18.9	-8.6	-4.7	-7.0	-7.7	-273.8
<b>Change in Federal Tax Revenue</b>												
Static Change to Tax Revenue	-31.4	-111.8	-88.0	-68.6	-55.5	-54.0	-60.5	-50.8	-47.0	-49.5	-52.6	-638.4
Dynamic Change to Tax Revenue	-28.6	-95.5	-62.9	-36.0	-18.3	-14.2	-18.9	-8.6	-4.7	-7.0	-7.7	-273.8
Revenue Feedback	2.8	16.3	25.1	32.6	37.2	39.8	41.6	42.2	42.3	42.5	44.9	364.6
Feedback Percent	8.8%	14.6%	28.5%	47.5%	67.1%	73.7%	68.8%	83.1%	90.0%	85.9%	85.3%	57.1%
<b>Federal Spending</b>												
Forecast	2,105.3	2,197.4	2,301.1	2,399.1	2,500.3	2,610.8	2,716.3	2,829.4	2,961.1	3,041.0	3,124.9	26,681.4
Baseline	2,105.0	2,194.0	2,283.0	2,368.0	2,463.0	2,573.0	2,679.0	2,792.0	2,924.0	3,005.0	3,088.2	26,369.2
Difference	0.3	3.4	18.1	31.1	37.3	37.8	37.3	37.4	37.1	36.0	36.6	312.1
<b>Federal Surplus/Deficit</b>												
Forecast	-178.0	-211.9	-122.9	-52.1	0.3	37.9	77.8	132.0	279.2	477.0	800.9	1,418.2
Baseline	-149.0	-113.0	-42.0	15.0	56.0	90.0	134.0	178.0	321.0	520.0	842.4	2,001.4
Difference	-29.0	-98.9	-80.9	-67.1	-55.7	-52.1	-56.2	-46.0	-41.8	-43.0	-41.5	-583.2
<b>Federal On-Budget Surplus/Deficit</b>												
Forecast	-348.2	-404.0	-334.9	-281.1	-245.9	-228.7	-208.1	-172.0	-44.7	136.2	337.5	-1,445.7
Baseline	-319.0	-301.0	-249.0	-209.0	-186.0	-172.0	-147.0	-121.0	2.0	184.0	387.0	-812.0
Difference	-29.2	-103.0	-85.9	-72.1	-59.9	-56.7	-61.1	-51.0	-46.7	-47.8	-49.6	-633.7
<b>Federal Off-Budget Surplus/Deficit</b>												
Forecast	170.3	192.1	211.9	229.0	246.3	266.7	285.9	304.0	323.9	340.8	359.1	2,759.7
Baseline	170.0	188.0	207.0	224.0	242.0	262.0	281.0	299.0	319.0	336.0	353.9	2,711.9
Difference	0.3	4.1	4.9	5.0	4.3	4.7	4.9	5.0	4.9	4.8	5.2	47.8
<b>Net Publicly Held Federal Debt</b>												
Forecast	3,683.3	3,896.4	4,041.6	4,117.6	4,142.2	4,124.0	4,061.0	3,948.2	3,682.9	3,217.0	2,755.7	3,798.7
Baseline	3,676.0	3,805.0	3,862.0	3,865.0	3,829.0	3,757.0	3,639.0	3,476.0	3,167.0	2,658.0	2,230.8	3,428.9
Difference	7.3	91.4	179.6	252.6	313.2	367.0	422.0	472.2	515.9	559.0	524.9	369.8
<b>Net Publicly Held Federal Debt Share</b>												
Forecast	34.1	34.0	33.4	32.3	30.8	29.1	27.2	25.1	22.3	18.5	15.1	26.8
Baseline	34.1	33.6	32.4	30.7	28.9	26.9	24.7	22.4	19.4	15.5	12.4	24.7
Difference	0.0	0.4	1.0	1.6	1.9	2.2	2.5	2.7	2.9	3.0	2.7	2.1
<b>Disposable Personal Income</b>												
Forecast	8,077.6	8,582.9	8,927.1	9,305.6	9,726.2	10,207.1	10,726.0	11,242.3	11,683.0	12,194.7	12,743.8	10,533.9
Baseline	8,037.6	8,368.4	8,692.7	9,083.7	9,521.5	9,996.3	10,501.7	11,026.3	11,481.0	11,996.6	12,535.4	10,320.4
Difference	40.0	214.5	234.4	221.9	204.7	210.8	224.3	216.0	202.0	198.1	208.5	213.5

Note: Estimates are for fiscal years. Numbers may not sum due to rounding.  
 Source: March 2003 simulations by the Center for Data Analysis of The Heritage Foundation using the DRI-WVEFA U.S. Macroeconomic Model. Forecast: Based on CDA calculations and United States Treasury static revenue estimates for 10% bracket expansion, rate reduction, marriage penalty relief, child tax credit expansion, small business expensing, minimum tax relief, and ending of double taxation of corporate earnings. Forecast values were extended through 2013 using a trend forecast.

