

**OVERVIEW OF PAST TAX LEGISLATION PROVIDING
FISCAL STIMULUS AND ISSUES IN DESIGNING AND
DELIVERING A CASH REBATE TO INDIVIDUALS**

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I. INTRODUCTION AND SUMMARY

A number of policy makers and economists have expressed concern that the rate of growth of the U.S. economy is slowing and that a significant economic downturn, or recession, may lie ahead. While no precise definition of “recession” exists in economics, variables commonly examined to identify whether the economy is in recession are the rate of growth of real gross domestic product (GDP), the unemployment rate, the capacity utilization rate, the inflation rate, and interest rates.¹ When the rate of growth of GDP is low, or negative, and when unemployment increases and capacity utilization decreases, policy makers often consider adopting fiscal stimulus policies. Typically, these policies are intended to increase demand for goods and services either by individuals, businesses or governments.

The Senate Committee on Finance has scheduled hearings for Tuesday, January 22, 2008, and for Thursday, January 24, 2008, to hear testimony on “Strengthening America’s Economy: Stimulus That Makes Sense.” In response to past economic slowdowns or downturns, the Congress has made changes in tax laws to provide fiscal stimulus. This pamphlet² reviews a number of the tax tools the Congress has chosen in the past as part of stimulative fiscal policy, reviews some of the available economic evidence related to the efficacy of such tax tools, and discusses design issues with respect to proposals to pay cash rebates to taxpayers.

Past legislative proposals

The U.S. economy experienced periods identified as recessions beginning in 1960, 1970, 1974, 1980, 1982, 1990, and 2001. While Congress often has multiple policy goals when it passes tax legislation, many analysts identify tax bills passed in 1962, 1964, 1971, 1975, 1981, 1992,³ 2001, 2002, and 2003 as attempts to stimulate the economy. The Congress has crafted tax reduction provisions for both individuals and businesses in its past efforts to stimulate the economy. Below is a selection of provisions passed by the Congress in these past bills.

¹ The oft cited definition of two consecutive quarters of decline in real GDP represents a fairly accurate description of a rule of thumb used by economists to identify recessions.

² This document may be cited as follows: Joint Committee on Taxation, *Overview of Past Tax Legislation Providing Fiscal Stimulus and Issues in Designing and Delivering a Cash Rebate to Individuals*, (JCX-4-08R), February 13, 2008. A previous version of this document was released on January 21, 2008. The present revision revises and clarifies the discussion of Tables 6, 7, and 8. This revision also corrects a factual error contained in footnote 90 of the previous version. The JCT Staff regrets the error. This document can also be found on the web at www.house.gov/jct.

³ The stimulus legislation passed by Congress in 1992 (H.R. 4210) was vetoed by the President.

Table 1.–Stimulus Targeted at Individuals

| Type of Provision | Year |
|---|-------------------------------|
| Cash Rebates..... | 1975, 2001, 2003 |
| Increase in standard deduction..... | 1971, 1975, 2001 |
| Increase dependent exemptions or credits | 1971, 1975, 1992,* 2001, 2003 |
| Reduce individual tax rates..... | 1964, 1975, 1981, 2001, 2003 |
| Increase in the earned income tax credit..... | 1975, 1992,* 2001 |
| Provide an individual credit for FICA taxes | 1992* |
| Reduce tax rate applicable to income from capital gains | 1981, 2003 |
| Reduce tax rate applicable to dividend income | 2003 |

Table 2.–Stimulus Targeted at Business

| Type of Provision | Year |
|---|-------------------------------------|
| Reduce corporate income tax rates | 1964, 1981 |
| Provide an extended carry back or carry over for net operating losses | 1981, 2002 |
| Provide an investment tax credit..... | 1962, 1971, 1975, 1981 |
| Modify depreciation schedules | 1962, 1971, 1981, 1992,* 2002, 2003 |
| Expand expensing permitted under sec. 179..... | 1992,* 2003 |

* - 1992 legislation was passed by the Congress but vetoed by the President.

A number of analysts have pointed to recent problems in the markets for mortgage finance and weakness in the housing sector as significant factors behind current concerns related to the aggregate economy. There were similar concerns in 1975 and as part of the 1975 tax legislation the Congress provided a credit available to individuals for the purchase of a new home.

Economic evidence relating to the efficacy of tax policy as short run fiscal stimulus

A tax reduction has two avenues by which it can affect the economy. By reducing tax liabilities a tax reduction is similar to a “lump sum” transfer of income from the government to the taxpayer. When a tax reduction reduces marginal tax rates or alters the after-tax return to investment, it changes incentives of taxpayers to work and invest. A lump sum transfer of income from the government to the taxpayer can act as a fiscal stimulus if taxpayers respond to

the increase in income by increasing their consumption. A tax reduction that reduces marginal tax rates or alters the after-tax return to investment can act as a fiscal stimulus if taxpayers respond to the tax reduction by increasing their demand for investment goods.

Studies of the 1975, 2001 and 2003 tax rebate proposals generally have found that the rebates provided modest stimulus to consumption. The studies varied in their estimates as to the portion of the rebates that were consumed in the short run, ranging from around one third to two thirds of the amount of the rebates. While there is a large literature on the impact of marginal rate reductions on savings and labor supply, such policies are designed mainly as long term policy changes designed to affect long run growth. Rigorous empirical evidence for the overall macroeconomic effect of individual stimulus incentives is hard to obtain. Macroeconomic modeling, such as that done by the staff of the JCT,⁴ generally has found modest short run stimulative effects of policies similar to rebates (such as an increase in exemption levels), or policies lowering marginal tax rates.

Several studies suggest that bonus depreciation, enhanced expensing provisions, and the investment tax credit generally have had modest effects on overall levels of investment, though there is some evidence that the composition of investment may be responsive to such provisions. In addition, the investment tax credit may have had destabilizing effects on the economy, encouraging companies to delay investment during slowdowns and providing stimulus when the economy was already in recovery. Empirical evidence on the effect of corporate income tax rate changes is scant, but economic models suggest that while these reductions may encourage investment in the short run, they have the greatest effect on long term growth.

Design issues in designing and delivering a cash rebate for individuals

With more than 136 million individual income tax returns filed annually, and even more individuals paying Social Security tax contributions on their wages, taxpayer information constitutes a substantial database from which to fashion a cash rebate to individuals. In practice, income tax returns provide the most comprehensive available database of current economic and personal information about individuals to use in designing a rebate. By using income tax return information, policy makers, should they choose to, can fine tune who receives a rebate, or determine how large the rebate is. For example, policy makers could decide to deny rebates to dependent children, to limit the rebate in relation to a taxpayer's income, or to increase the rebate for families. Tax return information provides the data needed to implement these decisions.

Unfortunately, neither the Social Security Administration (SSA) nor the Internal Revenue Service (IRS) has accurate personal information, such as addresses, relating to those individuals who make Social Security contributions with respect to their wages, but who do not file income tax returns (because, for example, their income is below the relevant threshold), unless (as in the case of some working seniors) they also currently are receiving Social Security benefits. Moreover, neither system collects comprehensive current data on the unemployed, if they have

⁴ Joint Committee on Taxation, *Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief*, (JCX-4-05), March 1, 2005.

no other source of income. The tax system data collected tends not to encompass the very lowest-income Americans. Cash stimulus payments aimed at them may be more effectively designed through current programs such as food stamps, unemployment insurance, and the SSI program.

In addition to the policy questions of who should receive a cash stimulus payment, and how much those payments should be, there are four main practical design issues to consider when formulating an income-tax based rebate: (1) how to provide for the most timely delivery of the rebates to intended beneficiaries; (2) how to accurately deliver the rebates to intended beneficiaries; (3) how to minimize taxpayer opportunities to modify behavior to manipulate the system to obtain rebates for unintended beneficiaries; and (4) whether a system to check for errors of omission in targeting rebates to intended beneficiaries should be used. These practical considerations to date appear to have received less attention than the larger policy questions, but in many cases these practical issues determine what policies can actually be implemented in a timely manner.

Very generally, the analysis developed in this pamphlet suggests that, if a tax-based cash stimulus payment is desired, that payment, should be based at least initially on information contained in individuals' 2007 tax returns, *except* in one case. If policy makers wish to provide rebates for all individuals who file returns, without limitation to the amount of their respective tax liabilities, then it would be important to base that program on 2006 income tax returns, because the filing season for that year is now complete. If, by contrast, one were to base such rebates on 2007 filing information, then, since we are now in the middle of the 2007 filing season, the expected consequence would be a very large number of returns being filed solely for the purpose of obtaining that rebate.

The IRS's systems are today fully engaged in processing 2007 tax returns. As a result, it is not practical to contemplate distributing cash rebates until the peak filing season is completed, which in past years has been the very end of May. Moreover, this systems constraint cannot be avoided by basing a 2008 rebate on 2006 filed returns. The JCT Staff has not been able to identify an agency of the Federal government that could deliver tax-based rebates in 2008 more quickly than could the IRS. Even this schedule would require a great deal of work by the IRS, as it would need (among other steps) to develop a specific processing system to compute and distribute the rebates between the date legislation is enacted and the end of the 2007 filing season.

Once the IRS begins processing the data in the individual tax records to compute individuals' entitlements to rebates, the Federal government faces a processing constraint in the delivery of paper checks. Available check processing capacity in the Federal government probably limits delivery to no more than nine million checks per week. (This same constraint explains why the 2001 rebate stretched out over roughly 10 weeks.) If a rebate based on 2007 tax returns is implemented in the near future, then roughly 40 million individuals can be expected to be eligible to receive their rebates through electronic direct deposit. This would accelerate the average delivery date for rebates by several weeks, when compared to 2001, even if the first paper check were to be issued at the same time of the year as in 2001.

To the extent a rebate system has imperfect targeting and delivery, because, for example, taxpayers whom policy makers wish to reach were not reflected in the base year's returns, policy makers may want to consider whether to allow eligible persons who meet the relevant standards in 2008 (but not in the base year) to receive the funds when filing their 2008 return, which will occur in 2009. Such a "true-up" system is likely to be perceived by some as more equitable than not having such a system. (Conversely, the "true-up" systems implemented in 2001 and 2003 effectively gave taxpayers rebates determined as the "better of" either of two tax years, which arguably raises different equity issues.) A true-up system adds complexity to the Code and may be thought to partially violate the goal of providing timely stimulus, because beneficiaries of the true-up system would not obtain their payments until 2009.

II. PAST TAX LEGISLATION PROVIDING FISCAL STIMULUS

A. Individual Income Tax Provisions

Congress has responded to past economic slowdowns with a variety of tax changes for individuals to provide fiscal stimulus. Among these changes have been cash rebates, changes in individual income tax rates, increases in exemptions and child tax credits, earned income credit, reductions in the rates for capital gains and dividends of individuals, and other changes, a number of which are described below.

1. Cash rebates

The Tax Reduction Act of 1975,⁵ enacted on March 29, 1975, provided for a refund of 1974 tax liability in a single installment beginning in May 1975. The amount of the refund was equal to 10 percent of an individual's tax liability, up to a maximum refund of \$200.⁶ Each taxpayer received a refund of at least \$100 (or the full amount of the taxpayer's actual tax liability if it was less than \$100). The refund was phased down from the maximum of \$200 to \$100 as the taxpayer's adjusted gross income rose from \$20,000 to \$30,000. The amounts of these refunds were not considered income or resources for purposes of determining eligibility for benefits or assistance (or the amount of the benefits or assistance) under any Federal or federally assisted program.

The Economic Growth and Tax Relief Reconciliation Act of 2001⁷ ("EGTRRA"), enacted on June 7, 2001, created a new 10-percent regular income tax bracket for a portion of taxable income that was previously taxed at 15 percent.⁸ This change was effective for taxable years beginning after December 31, 2001. For 2001, a tax credit equivalent to the value of the rate reduction operated in lieu of the new 10-percent income tax rate bracket. Most taxpayers received the credit in the form of a check issued by the Department of the Treasury and calculated on the basis of each taxpayer's 2000 income tax liability (determined after nonrefundable credits). The first checks were issued to taxpayers in July 2001, and most taxpayers received a check by October 1, 2001. When taxpayers filed their 2001 returns, they reconciled the amount of the credit with the check and received any excess credit; if the check received by a taxpayer exceeded the amount of the taxpayer's credit, the taxpayer was permitted to keep the excess.

⁵ Pub. L. No. 94-12 (1975).

⁶ Approximately \$770 in 2007 dollars.

⁷ Pub. L. No 107-16 (2001).

⁸ The new 10-percent regular income tax bracket is repealed for taxable years beginning after December 31, 2010, under the sunset provision of EGTRRA.

The Jobs and Growth Tax Relief Reconciliation Act of 2003⁹ (“JGTRRA”), enacted on May 28, 2003, increased the amount of the child credit from \$600 to \$1,000 for 2003 and 2004. For 2003, the increased amount of the child credit was paid in advance beginning in July 2003, on the basis of information on each taxpayer’s 2002 return filed in 2003. The payments were made in a manner similar to the advance payment checks issued by the Treasury Department in 2001 under EGTRRA, with the first checks being issued to taxpayers in July 2003.

2. Reduction in individual tax rates

The Revenue Act of 1964¹⁰ (the “1964 Act”), enacted on February 26, 1964, reduced the individual tax rates from a range of 20 to 91 percent to a range of 16 to 77 percent for 1964 and to a range of 14 to 70 percent for 1965 and subsequent years. Beginning in 1965, the 1964 Act also split the first bracket into four segments of \$500 each, taxed at 14, 15, 16, and 17 percent, respectively.

The Economic Recovery Tax Act of 1981,¹¹ enacted on August 13, 1981, provided cumulative across-the-board reductions in individual income tax rates of 1.25 percent in 1981, 10 percent in 1982, 19 percent in 1983, and 23 percent in 1984 and subsequent years.¹² These tax reductions were reflected in reductions in withholding on October 1, 1981, July 1, 1982, and July 1, 1983. The top marginal tax rate on unearned income was reduced from 70 percent to 50 percent beginning January 1, 1982.

As noted above, EGTRRA created a new 10-percent regular income tax bracket for a portion of taxable income that had previously been taxed at 15 percent, effective for taxable years beginning after December 31, 2001.¹³ In addition, the prior-law regular income tax rates of 28 percent, 31 percent, 36 percent, and 39.6 percent were phased down over six years to 25 percent, 28 percent, 33 percent, and 35 percent, effective after June 30, 2001.¹⁴ Accordingly, for taxable years beginning during 2001, the rate reduction came in the form of a blended tax rate.

⁹ Pub. L. 108-27 (2003).

¹⁰ Pub. L. 88-274 (1964).

¹¹ Pub. L. 97-34 (1981).

¹² The Economic Recovery Tax Act of 1981 also indexed the income tax brackets, zero-bracket amount, and personal exemption for increases in the consumer price index, starting in 1985. The first adjustment, for 1985 tax returns, was based on price increases between fiscal year 1983 and fiscal year 1984.

¹³ The size of the 10-percent bracket would have increased in 2008 for single individuals and married couples filing joint returns. In addition, all of the taxable income levels of the 10-percent bracket would have been adjusted for inflation for taxable years beginning after December 31, 2008.

¹⁴ The regular income tax rate reductions, as well as the new 10-percent regular income tax bracket, are repealed for taxable years beginning after December 31, 2010, under the sunset provision of EGTRRA.

The taxable income levels for the reduced rates above the 15-percent rate in all taxable years were the same as the taxable income levels that applied under the prior-law rates.

Table 3, below, shows the EGTRRA schedule of regular income tax rate reductions.

Table 3.—Regular Income Tax Rate Reductions

| Calendar Year | 28% rate reduced to | 31% rate reduced to | 36% rate reduced to | 39.6% rate reduced to |
|--------------------------|----------------------------|----------------------------|----------------------------|------------------------------|
| 2001 ¹⁵ -2003 | 27% | 30% | 35% | 38.6% |
| 2004-2005 | 26% | 29% | 34% | 37.6% |
| 2006 and later | 25% | 28% | 33% | 35% |

The Secretary of the Treasury made appropriate revisions to the wage withholding tables, effective July 2001, to reflect the rate reductions that were also effective beginning July 1, 2001.

JGTRRA fully phased in the EGTRRA regular income tax rate reductions for 2003 through 2005, so that, for 2005-2010, the regular income tax rates in excess of 15 percent are 25 percent, 28 percent, 33 percent, and 35 percent. JGTRRA also accelerated, for 2003, the increase in the size of the 10-percent bracket that was scheduled to be effective in 2008, and, for 2004, the inflation adjustment that was scheduled to be effective in 2009.¹⁶

3. Increase in standard deduction

The 1964 Act created, as an alternative to the then present-law 10-percent standard deduction amount, a minimum standard deduction amount so as to provide additional tax relief to lower-income taxpayers. The minimum standard deduction amount was \$200 plus \$100 for each exemption claimed. The 10-percent standard deduction amount was equal to 10 percent of adjusted gross income, but could not exceed \$1,000.¹⁷

¹⁵ Effective July 1, 2001.

¹⁶ The Working Families Tax Relief Act of 2004, Pub. L. No. 108-311 (“WFTRA”), enacted on October 4, 2004, increased the size of the 10-percent bracket for 2005-2010. Specifically, WFTRA set the size of the 10-percent bracket for 2005-2010 at the 2003 level with annual indexing from 2003.

¹⁷ For a single person, the minimum standard deduction amount was \$300 (\$200+\$100), which, when combined with an exemption of \$600, meant that a person could earn up to \$900 with no tax liability; in contrast, under the 10-percent standard deduction, a single person could earn only up to \$667 with no tax liability (a standard deduction of 10 percent of income (\$67) plus a \$600 exemption). A married couple, under the minimum standard deduction, could earn up to \$1,600 with no tax liability (a minimum standard deduction of \$400 (\$200+\$100+\$100) plus two exemption amounts (\$600+\$600)); under the 10-percent standard deduction, a married couple could earn only up to \$1,333 with no tax liability (a standard deduction of 10 percent of income (\$133) plus two exemption amounts (\$600+\$600)).

The Revenue Act of 1971,¹⁸ enacted on December 10, 1971, increased the low-income allowance by \$300, to \$1,300, for 1972 and thereafter.¹⁹ The Act also accelerated to 1972 a permanent increase in the percentage standard deduction to 15 percent of adjusted gross income that was scheduled to go into effect in 1973.²⁰

The Tax Reduction Act of 1975 increased for 1975 (1) the low-income allowance from \$1,300 (for both single individuals and married couples filing joint returns) to \$1,600 for single individuals and to \$1,900 for married couples filing joint returns, (2) the percentage standard deduction from 15 percent to 16 percent, and (3) the percentage standard deduction ceiling from \$2,000 (for single and joint returns) to \$2,300 for single returns and to \$2,600 for joint returns.²¹ The Tax Reduction Act of 1975 provided that the changes in the standard deduction were to be reflected in lower withholding and estimated taxes for the last eight months of 1975.

EGTRRA increased the basic standard deduction for a married couple filing a joint return to twice the basic standard deduction for an unmarried individual filing a single return.²² The basic standard deduction for a married taxpayer filing separately is one-half of the basic standard deduction for a married couple filing jointly; consequently, the basic standard deduction for unmarried individuals filing a single return and for married couples filing separately is the same.

Under EGTRRA, the increase in the standard deduction was phased in over five years beginning in 2005, and thus is fully phased in for 2009 and thereafter.

¹⁸ Pub. L. No 92-178 (1971).

¹⁹ The Tax Reform Act of 1969, Pub. L. No. 87-274, enacted on December 30, 1969, had replaced the minimum standard deduction amount with a new “low-income allowance” of \$1,000 for 1972 and thereafter.

²⁰ The Tax Reform Act of 1969, Pub. L. 82-274, had increased the percentage standard deduction from 10 percent with a \$1,000 ceiling to 13 percent with a \$1,500 ceiling in 1971, to 14 percent with a \$2,000 ceiling in 1972, and to 15 percent with a \$2,000 ceiling for 1973 and thereafter. The Revenue Act of 1971 did not alter the percentage standard deduction ceiling, which was already set at \$2,000 for 1972 and thereafter.

²¹ The Revenue Adjustment Act of 1975, Pub. L. No. 94-164, enacted on December 23, 1975, extended, for the first half of 1976, the increase in the percentage standard deduction from the Tax Reduction Act of 1975; it also increased, for the first six months of 1976, (1) the percentage standard deduction ceiling, on a full-year basis, to \$2,400 for single returns and to \$2,800 for joint returns and (2) the low-income allowance, on a full-year basis, to \$1,700 for single returns and to \$2,100 for joint returns. The Tax Reform Act of 1976, enacted on October 4, 1976, made the increases permanent, thus making the increases effective for 1976 and subsequent years.

²² The basic standard deduction increases are repealed for taxable years beginning after December 31, 2010, under the sunset provision of EGTRRA.

JGTRRA fully phased in the EGTRRA increase in the basic standard deduction for a married couple filing a joint return for 2003 and 2004.²³ For 2005 and thereafter, the basic standard deduction amount for a married couple filing a joint return would have reverted to the amount provided under the EGTRRA phase-in.²⁴

4. Increase in dependent exemptions and child tax credits

The Revenue Act of 1971²⁵ increased the personal exemption amount from \$650 to \$675 in 1971 and to \$750 for 1972 and subsequent years.

The Tax Reduction Act of 1975 provided a nonrefundable credit of \$30 for each taxpayer and dependent for 1975. The Act also provided that the change in the general tax credit was to be reflected in lower withholding and estimated taxes for the last eight months of 1975.²⁶

The Tax Fairness and Economic Growth Act of 1992 would have provided a nonrefundable \$300 income tax credit (indexed for inflation) for each qualifying child of the taxpayer for taxable years beginning in 1994 and thereafter.²⁷ For purposes of this credit, a “qualifying child” was defined as a child under age 16 who resided with the taxpayer for more than six months during the taxable year. The credit would have been phased out ratably for taxpayers with adjusted gross income between \$50,000 and \$70,000 (the phase-out range was not adjusted for inflation).

²³ Comparing the standard deduction amounts for 2002, the last year before the increase became effective, and 2003, the first year that the increase was effective, allows one to see the effect of the increase. In 2002, an individual filing a single return could claim a standard deduction of \$4,700, while a married couple filing a joint return could claim a standard deduction of \$7,850 (approximately 167 percent of the amount an individual filing a single return could claim). In 2003, an individual filing a single return could claim a standard deduction of \$4,750, while a married couple filing a joint return could claim a standard deduction of \$9,500 (200 percent of the amount an individual filing a single return could claim).

²⁴ WFTRA fully phased in the EGTRRA increase in the basic standard deduction for a married couple filing a joint return for 2005-2008.

²⁵ Pub. L. 92-178 (1971).

²⁶ The Revenue Adjustment Act of 1975 extended and increased the credit for the first half of 1976, on a full-year basis, to the greater of \$35 or two percent of the first \$9,000 of taxable income. The Tax Reform Act of 1976 extended the increased credit through 1977.

²⁷ H.R. 4210, the Tax Fairness and Economic Growth Act of 1992, was vetoed by the President and never became law.

EGTRRA increased the child tax credit from \$500 to \$1,000, phased in over 10 years, effective for taxable years beginning after December 31, 2000.²⁸

Table 4, below, shows the increase of the child tax credit.

Table 4.—Increase of the Child Tax Credit

| Calendar Year | Credit Amount Per Child |
|----------------------|--------------------------------|
| 2001-2004 | \$600 |
| 2005-2008 | \$700 |
| 2009 | \$800 |
| 2010 | \$1,000 |

EGTRRA made the child tax credit refundable to the extent of 10 percent of the taxpayer’s earned income in excess of \$10,000 for calendar years 2001-2004. The percentage was increased to 15 percent for calendar years 2005 and thereafter. The \$10,000 amount was indexed for inflation beginning in 2002. Families with three or more children were allowed a refundable credit for the amount by which the taxpayer’s Social Security taxes exceed the taxpayer’s earned income credit (the present and prior-law rule), if that amount was greater than the refundable credit based on the taxpayer’s earned income in excess of \$10,000. EGTRRA also provided that the refundable portion of the child tax credit does not constitute income and shall not be treated as resources for purposes of determining eligibility or the amount or nature of benefits or assistance under any Federal program or any State or local program financed with Federal funds.

EGTRRA provided that the refundable child tax credit no longer be reduced by the amount of the alternative minimum tax. In addition, EGTRRA allows the child credit to the extent of the full amount of the individual’s regular income tax and alternative minimum tax.

EGTRRA generally is effective for taxable years beginning after December 31, 2000. The provision relating to allowing the child tax credit against alternative minimum tax is effective for taxable years beginning after December 31, 2001.

JGTRRA increased the amount of the child tax credit from \$600 to \$1,000 for 2003 and 2004.²⁹ As explained above, the increase for 2003 was paid out in advance.

²⁸ The credit reverts to \$500, and all of the other EGTRRA child tax credit rules expire, for taxable years beginning after December 31, 2010, under the sunset provision of EGTRRA.

²⁹ WFTRA increased the child tax credit to \$1,000 for 2005-2009.

5. Earned income credit (“EIC”)

The Tax Reduction Act of 1975 created an EIC, for 1975 only, in the form of a refundable tax credit equal to 10 percent of the first \$4,000 of earned income, phased out as adjusted gross income rose from \$4,000 to \$8,000. This EIC applied only to families who maintained a household for at least one dependent child for whom they were entitled to claim a personal exemption. The Act did not include an advance credit mechanism, so taxpayers received the benefit of the credit only through reducing the amount of their withholding for the remainder of 1975 or upon filing their 1975 tax returns in early 1976.³⁰

The Tax Fairness and Economic Growth Act of 1992 would have repealed the supplemental young child credit and increased the basic EIC rate for taxpayers with two or more qualifying children as shown in the following table.³¹

Table 5.—Increase of the Basic EIC

| Year | One qualifying child | | Two or more qualifying children | |
|----------------|----------------------|----------------|---------------------------------|----------------|
| | Credit rate | Phase-out rate | Credit rate | Phase-out rate |
| 1992 | 17.6 | 12.57 | 18.90 | 13.49 |
| 1993 | 18.5 | 13.21 | 20.50 | 14.64 |
| 1994 and later | 23.0 | 16.43 | 26.00 | 18.56 |

The Tax Fairness and Economic Growth Act of 1992 would have permitted taxpayers to include all health insurance expenses as medical expenses, subject to the 7.5 percent of adjusted gross income floor on deductible medical expenses, regardless of whether these expenses had been used to claim the health insurance component of the EIC. Also, the Tax Fairness and Economic Growth Act of 1992 would have permitted a self-employed taxpayer to claim the allowable deduction for health insurance costs and to use the full amount of these expenses that were related to coverage of dependent children to claim the health insurance component of the EIC. These provisions would have been effective for taxable years beginning after December 31, 1991.

For married taxpayers who file a joint return, EGTRRA increased the beginning and ending of the EIC phase-out as follows: by \$1,000 in the case of taxable years beginning in

³⁰ The Revenue Adjustment Act of 1975 extended the EIC for the first six months of 1976. In addition, the credit for 1975 was modified to provide that it be disregarded in determining eligibility for, or benefits under, Federal or federally assisted aid programs, as long as the individual was a recipient of benefits under the program in the month before receiving a tax refund resulting from the EIC. The Tax Reform Act of 1976 broadened the EIC and extended it through 1977.

³¹ As noted above, H.R. 4210, the Tax Fairness and Economic Growth Act of 1992 was vetoed by the President and never became law.

2002, 2003, and 2004; by \$2,000 in the case of taxable years beginning in 2005, 2006, and 2007; and by \$3,000 in the case of taxable years beginning after 2007.³² The \$3,000 amount is adjusted annually for inflation after 2008.

EGTRRA repealed the prior-law provision that reduces the EIC by the amount of an individual's alternative minimum tax.

6. Individual credit for FICA taxes

The Tax Fairness and Economic Growth Act of 1992 would have provided an income tax credit for up to 20 percent of an employee's Social Security tax liability for 1992 and 1993.³³ In the case of State and local government workers who did not pay FICA taxes, contributions to a retirement plan maintained by the State or local government would have been considered equivalent to Social Security tax liability. The maximum credit would have been \$150 for unmarried taxpayers and \$300 for married couples filing joint returns. The tax credit would have been phased out ratably for taxpayers with adjusted gross income between \$50,000 and \$70,000 (married taxpayers filing a joint return), or between \$35,000 and \$50,000 (unmarried taxpayers filing as single or as head of household). The tax credit would have been refundable to taxpayers with a "qualifying child," who generally would have been defined as a child under age 19 who resided with the taxpayer for more than six months during the taxable year.

7. Reduced rates for capital gains and dividends of individuals

The Economic Recovery Tax Act of 1981 reduced the maximum rate on net capital gain from 28 percent to 20 percent. In addition, the tax on capital gains of taxpayers other than those subject to the maximum rate was lowered as a result of the individual income tax reductions in that Act. The reductions were effective for sales or exchanges after June 9, 1981.

JGTRRA reduced the rates on net capital gain from 10 and 20 percent to 5 and 15 percent, effective for sales or exchanges after May 6, 2003. JGTRRA also reduced the maximum rate on most dividend income from 35 percent to 15 percent, effective for taxable years beginning after December 31, 2002.³⁴

³² EGTRRA made several other modifications to the EIC.

³³ As noted above, H.R. 4210, the Tax Fairness and Economic Growth Act of 1992 was vetoed by the President and never became law.

³⁴ Under JGTRRA, the reductions in the net capital gain rates and the maximum rate on dividend income would have expired for taxable years beginning after December 31, 2008. However, the Tax Increase Prevention and Reconciliation Act of 2005, enacted on May 17, 2006, delayed the expiration of those provisions to taxable years beginning after December 31, 2010.

B. Business Income Tax Provisions

Congress also has responded to past economic slowdowns with a variety of tax changes designed to provide fiscal stimulus for businesses. Among these changes have been accelerated depreciation (including an accelerated cost recovery system and bonus depreciation), investment tax credits, section 179 expensing, expansion of the period for net operating loss carryovers and carrybacks, reductions in corporate income tax rates, and other changes, a number of which are described below.

1. Depreciation

Accelerated Cost Recovery System

Prior to 1981, the Internal Revenue Code's depreciation system was based on estimated useful lives determined either using facts and circumstances or by using guideline lives provided in Treasury guidance.³⁵ The useful lives generally were applied to calculate depreciation deductions using a straight-line or double declining balance method.

In 1981, the prior law depreciation system was replaced with the Accelerated Cost Recovery System ("ACRS").³⁶ ACRS was a system for recovering capital costs using accelerated methods over predetermined recovery periods that generally are unrelated to, but shorter than, prior law useful lives. For personal property, the cost of eligible property was recovered over a 15-year, 10-year, five-year, or three-year period, depending on the type of property. The method used to calculate the depreciation expense generally was 150 percent declining balance (with change to straight-line) for property placed in service in 1981 through 1984, 175 percent declining balance (with change to sum of the year-digits) for property placed in service in 1985, and 200 percent declining balance (with change to sum of the year-digits) for property placed in service after 1985. A half-year convention was used that permitted a half-year depreciation to be claimed in the first year, with all remaining depreciation claimed in the subsequent years. Real property was recovered over 15 years either on an accelerated schedule or using a straight-line convention.

The ACRS system significantly accelerated depreciation on tangible personal property. For example, pre-ACRS, machinery used in producing textiles could have been depreciated over the mid-point of the 11-year class life using the straight-line method. Post-ACRS cost of the same machinery was recovered over a five-year recovery period (the class life was between four and 18.5 years) using a 150 percent declining balance method (200 percent declining balance after 1985).

³⁵ See Rev. Proc. 62-21, 1962-2 C.B. 418, for guideline useful lives.

³⁶ Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, sec. 201 (1981).

1992 bonus depreciation

H.R. 4210, the Tax Fairness and Economic Growth Act of 1992,³⁷ would have provided an additional first-year depreciation deduction equal to 10 percent of the adjusted basis of certain qualified property. Fifty percent of the amount of the additional first-year depreciation deduction would have been allowed as a deduction in the year the property was placed in service and the remaining 50 percent would have been allowed as a deduction in the succeeding taxable year. The deduction also would have been allowable against the alternative minimum tax. Qualifying property generally would have included section 1245 property, the original use of which commenced with the taxpayer after February 1, 1992, placed in service on or after February 1, 1992, and before July 1, 1993. Additionally, the property would have had to have been acquired by the taxpayer (1) on or after February 1, 1992, and before January 1, 1993, but only if no binding written contract for the acquisition was in effect before February 1, 1992, or (2) pursuant to a binding written contract which was entered into on or after February 1, 1992, and before January 1, 1993.³⁸

The bonus depreciation provision would have significantly accelerated allowable deductions. For example, a taxpayer that placed in service a piece of machinery (a seven-year asset, and assuming the half-year convention) would have deducted 19.29 percent of the asset's basis (five percent bonus + 14.29 percent regular depreciation) during the first year. Without bonus depreciation, the same taxpayer would have deducted 14.29 percent of the asset's basis during the first year.

2002 bonus depreciation

The Job Creation and Worker Assistance Act of 2002³⁹ provided an additional first-year depreciation deduction equal to 30 percent of the adjusted basis of qualified property.⁴⁰ The additional first-year depreciation deduction was allowed for both regular tax and alternative minimum tax purposes for the taxable year in which the property was placed in service. The basis of the property and the depreciation allowances in the placed-in-service year and later years were appropriately adjusted to reflect the additional first-year depreciation deduction. In addition, there were no adjustments to the allowable amount of depreciation for purposes of computing a taxpayer's alternative minimum taxable income with respect to property to which the provision applies.

³⁷ This bill was vetoed by the President and never became law.

³⁸ For self-constructed property, the taxpayer must have begun the manufacture, construction, or production of the property on or after February 1, 1992, and before January 1, 1993.

³⁹ Pub. L. No. 107-147, sec. 101 (2002).

⁴⁰ A taxpayer was permitted to elect out of the 30-percent additional first-year depreciation deduction for any class of property for any taxable year.

The bonus depreciation significantly accelerated allowable deductions. For example, a taxpayer who placed in service machinery (a seven-year asset, and assuming the half-year convention) would have deducted 40 percent (30 percent + (70 percent x 14.29 percent)) of the asset's basis during the first year. Without bonus depreciation, the same taxpayer would have deducted 14.29 percent of the asset's basis during the first year.

For property to qualify for the additional first-year depreciation deduction, it must have met all of the following requirements. First, the property must have been property to which the general rules of MACRS apply: (1) with an applicable recovery period of 20 years or less, (2) water utility property (as defined in section 168(e)(5)), (3) computer software other than computer software covered by section 197, or (4) qualified leasehold improvement property. Second, the original use of the property must have commenced with the taxpayer on or after September 11, 2001. Third, the taxpayer must have purchased the property within the applicable time period. Finally, the property must have been placed in service before January 1, 2005. An extension of the placed in service date of one year (i.e., January 1, 2006) was provided for certain property with a recovery period of 10 years or longer and certain transportation property.

The applicable time period for acquired property was: (1) after September 10, 2001, and before September 11, 2004, and no binding written contract for the acquisition was in effect before September 11, 2001, or (2) pursuant to a binding written contract which was entered into after September 10, 2001, and before September 11, 2004.⁴¹

2003 bonus depreciation

The Jobs and Growth Tax Relief Reconciliation Act of 2003⁴² provided an additional first-year depreciation deduction equal to 50 percent of the adjusted basis of qualified property.⁴³ Qualified property was defined in the same manner as for purposes of the 30-percent additional first-year depreciation deduction, except that the applicable time period for acquisition or self construction of the property and placed-in-service date requirement were modified (see below). Property for which the 50-percent additional first-year depreciation deduction was claimed was not eligible for the 30-percent additional first-year depreciation deduction.

In order to qualify, the property must have been acquired after May 5, 2003, and before January 1, 2005, and no binding written contract for the acquisition was in effect before May 6, 2003. With respect to property that was manufactured, constructed, or produced by the taxpayer for use by the taxpayer, the taxpayer must have begun the manufacture, construction, or production of the property after May 5, 2003.

⁴¹ For self-constructed property, the taxpayer must have begun the manufacture, construction, or production of the property after September 10, 2001, and before September 11, 2004.

⁴² Pub. L. No. 108-27, sec. 201 (2003).

⁴³ A taxpayer was permitted to elect out of the 50-percent additional first-year depreciation deduction for any class of property for any taxable year.

This provision also extended the placed-in-service date requirement for certain property with a recovery period of 10 years or longer and certain transportation property to property placed in service prior to January 1, 2006 (instead of January 1, 2005).

2. Investment tax credit

1962

The Tax Rate Extension Act of 1962 adopted the investment tax credit.⁴⁴ The investment tax credit was seven percent (three percent in the case of certain public utilities) of investments in new tangible personal property and certain depreciable real property (except buildings and structural components of buildings). No credit was allowed for property with a useful life of less than four years. For property with a life of four or five years, one-third of the investment was taken into account; for property of six to eight years, two-thirds was taken into account; and in the case of property with a longer life the full amount of the investment was taken into account. Up to \$50,000 of used property was eligible for the credit. The credit could offset tax liability in full up to \$25,000, but above that point the credit could not reduce tax liability by more than 25 percent. Any unused credit was allowed to be carried forward for five years and used in those years to the extent there was sufficient tax liability under the applicable limitation. If the property was sold before the end of its useful life, any excess credit was required to be recaptured.

The investment tax credit significantly accelerated taxpayers' basis recovery. For example, a taxpayer that placed in service a piece of machinery with a 12-year useful life (pre-ACRS recovery period) would have received a credit of seven percent of the asset's basis plus a depreciation deduction of 3.9 percent (.93, that is, $(1-.07)$ (basis reduction for credit received) \times .0416 ($1/12^{\text{th}} \times .5$ (half-year convention))). The credit, assuming the highest corporate tax rate of 52 percent, would have resulted in tax savings of 3.64 percent (seven percent \times 52 percent tax rate). Thus, the total tax savings during the first year would have been 5.66 percent (2.02 percent depreciation (3.9 percent \times 52 percent tax rate), plus 3.64 percent investment tax credit). Without the investment tax credit, the same taxpayer would have achieved a tax savings of 2.02 percent.

1971

The Revenue Act of 1971 provided for a seven percent investment credit which was substantially similar to the investment tax credit previously allowed.⁴⁵ The three principle differences from the credit previously allowed were (1) the useful life brackets used in determining the amount of investment in property which was eligible for the credit were shortened by one year, (2) the credit generally was not allowed for foreign-produced machinery and equipment, and (3) public utility property was eligible for a four percent rather than a three percent credit.

⁴⁴ Pub. L. No. 87-508, sec. 2 (1962).

⁴⁵ Pub. L. No. 92-178, sec. 49 (1972).

1975

The Tax Reduction Act of 1975 increased the investment tax credit from seven percent to 10 percent in an effort to stimulate the economy.⁴⁶ The Act also increased the limit on qualified investment in used property from \$50,000 to \$100,000. For property with a life of three or four years, one-third of the cost of investment was taken into account; for property of five or six years, two-thirds of the cost was taken into account; and for property with seven years or more, the full amount of the investment was taken into account. The Act also introduced “progress payments,” which allowed a current investment tax credit on projects that would take at least two years to complete and had a life of seven years or more (the progress payments were phased in ratably over five years). Any unused credit could be carried back three years and carried forward seven years.

1976

The Tax Reform Act of 1976 extended the 10-percent credit and continued the \$100,000 limitation on qualified investment in used property, from 1977 through 1980.⁴⁷

1981

The Economic Recovery Tax Act of 1981 expanded the eligible property to include petroleum storage facilities and certain railroad rolling stock.⁴⁸ The used property limitation was increased from \$100,000 to \$125,000 for years 1981 through 1984, and to \$150,000 in years after 1984. A recapture provision also was added whereby the regular credit was recomputed upon early disposition by allowing a two-percent credit for each year the property was held (no recapture after five years; three years for eligible three-year property). Additionally, the unused investment credit carry forward period was increased from seven to 15 years, and a new at-risk limitation was imposed, which applied to the same category of taxpayers subject to the section 465 (passive activity) rules.

3. Section 179 expensing

In lieu of depreciation, a taxpayer with a sufficiently small amount of annual investment may elect to deduct (or “expense”) such costs under section 179. In 1992, the maximum amount a taxpayer could expense was \$10,000. In 1992, H.R. 4210, the Tax Fairness and Economic Growth Act of 1992, would have increased this amount to \$20,000 for taxable years beginning in 1992 and 1993.⁴⁹ In 2003, the then-prevailing \$25,000 limitation was increased to \$100,000,

⁴⁶ Pub. L. No. 94-12, secs. 301-2, 304 (1975).

⁴⁷ Pub. L. No. 94-555, secs. 801-2 (1976).

⁴⁸ Pub. L. No. 97-34, secs. 211 and 213 (1981).

⁴⁹ This bill was vetoed by the President and never became law.

and the phase-out level of \$200,000 was increased to \$400,000 for tax years beginning in 2002 through 2006.⁵⁰

For reference purposes, the maximum amount that a taxpayer can expense, for taxable years beginning in 2007 through 2010, is \$125,000 of the cost of qualifying property placed in service for the taxable year. The \$125,000 amount is phase out by the amount by which the cost of qualifying property placed in service during the taxable year exceeds \$500,000. The \$125,000 and \$500,000 amounts are indexed for inflation in the taxable years beginning after 2007 and before 2011. In 2011, these amounts revert back to \$25,000 and \$200,000.

4. Net operating losses

Prior to 1981, net operating losses (“NOLs”) generally were allowed a three-year carryback and a seven-year carryover. In 1981, the NOL carryover period was extended to 15 years for NOLs in taxable years ending after December 31, 1975.⁵¹

In 2002, the NOL carryback period was temporarily increased to five years for NOLs arising in taxable years ending in 2001 and 2002.⁵² In addition, NOL carrybacks arising in taxable years ending in 2001 and 2002, as well as NOL carryovers to those taxable years, were allowed to offset 100 percent of a taxpayer’s alternative minimum taxable income.⁵³

5. Reduction in corporate income tax rates

As part of the Revenue Act of 1964, the corporate income tax rate was reduced from 52 percent to 50 percent for taxable years beginning in 1964 and 48 percent for taxable years beginning in 1965 and subsequent years.⁵⁴ These rates were a combination of a normal tax rate which applied to all corporate income, and a surtax rate, which applied to corporate income in excess of \$25,000.⁵⁵

⁵⁰ Jobs and Growth Tax Relief Reconciliation Act of 2003 (Pub. L. No. 108-27, sec. 202 (2003)).

⁵¹ Economic Recovery Tax Act of 1981 (Pub. L. No. 97-34, sec. 207 (1981)). NOLs of financial institutions were not modified; a carryback of 10 years and carryforward of five years was retained.

⁵² Job Creation and Worker Assistance Act of 2002 (Pub. L. No. 107-147, sec. 102 (2002)).

⁵³ Absent this special rule, NOL carryovers are only permitted to offset 90 percent of a taxpayer’s alternative minimum taxable income. Sec. 56(d)(1)(A).

⁵⁴ Pub. L. No. 88-272, sec. 121 (1964).

⁵⁵ The normal tax rates for pre-1964, 1964, and 1965 and subsequent years was 30 percent, 22 percent, and 22 percent, respectively. The surtax rates were 22 percent, 28 percent, and 26 percent, respectively.

In 1981, the tax rates for the two lowest corporate brackets were reduced.⁵⁶ The tax rates for the two brackets of \$0 to \$25,000 and \$25,000 to \$50,000 were reduced from 17 percent and 20 percent, respectively, to 16 percent and 19 percent, respectively, for taxable years beginning in 1982, and to 15 percent and 18 percent, respectively, for taxable years beginning in 1983 and later years.

⁵⁶ Economic Recovery Tax Act of 1981 (Pub. L. No. 97-34, sec. 231 (1981)).

C. Purchase of New Principal Residence

The Tax Reduction Act of 1975 provided individuals buying a newly built or substantially rehabilitated principal residence after March 12, 1975, and before January 1, 1977, a nonrefundable income tax credit equal to five percent of the purchase price. The credit was capped at \$2,000. The seller was required to certify that the purchase price was the lowest price at which the residence was offered for sale after February 28, 1975.

III. ECONOMIC EVIDENCE OF EFFICACY OF FISCAL STIMULUS THROUGH TAX POLICY

A. Economic Evidence on the Efficacy of Stimulative Fiscal Policy

Overview

Stimulative fiscal policy is the term for changes to taxes or spending that are intended to stimulate the nation's total demand for goods and services. These policies usually are enacted when the nation's total demand for goods and services experiences a slowdown in growth, or an absolute decline. In such circumstances, there typically would be economic slack, both in the sense that employment is below full employment, and in the sense that productive capacity is underutilized. Stimulative fiscal policies are intended to increase demand by individuals, businesses, or government. The intention is that increased demand will result in increased production and a movement in the direction of full employment and production. To be effective, the fiscal stimulus needs to be enacted in time to address the period of employment decline and underutilization of capacity. If the fiscal stimulus is delayed until the economy has recovered, then adoption of incentives may lead to overstimulation; the potential increase in inflation that might in turn follow could prompt a restrictive Federal Reserve monetary policy response.

This section presents economic evidence on whether stimulative policies are effective in achieving their intended outcome. Our analysis focuses on changes in taxes, that would potentially increase demand by either individuals or businesses.⁵⁷ Whether these policies are effective requires answering two questions. First, is the stimulative fiscal policy effective in increasing activity by the targeted group? Second, does increased activity by the targeted group result in increased production and a movement in the direction of full employment and production? We consider these two questions first in the context of policies aimed at individuals, and then at those aimed at businesses.

⁵⁷ See Congressional Budget Office, *Options for Responding to Short-Term Economic Weakness*, January 2008; and Douglas W. Elmendorf and Jason Furman, "If, When, How: A Primer on Fiscal Stimulus," Strategy Paper, the Hamilton Project, January 2008, for additional summaries of the evidence on both tax and spending stimulus policies. Both of these papers emphasize the importance of avoiding large increases in the Federal debt in an effort to provide temporary stimulus. The concern is that increased Federal borrowing would result in substantial drag on the economy by competing for funds in the financial markets, and thus crowding out possibly more productive private borrowing. For this reason, these papers focus on which stimulus policies are likely to have the most "bang for the buck" in terms of the ratio of stimulus effect to cost to the Federal budget.

B. Evidence Related to Individual Income Provisions

There are essentially two types of stimulative fiscal policy provisions intended to affect individuals. One type of policy takes the form of tax reductions that generally are intended to leave affected individuals with higher after-tax income, overall. An example of such a policy would be increased child tax credits. This type of tax policy is called a lump-sum tax change. The other type of policy takes the form of tax rate reductions that generally are intended to increase the after-tax income resulting from economic activity, thereby encouraging that activity. An example of such a policy would be reductions in individual income tax rates. This type of policy is called a marginal rate change.

Each of the policies mentioned in the section on tax policy related to individuals can have both lump-sum and marginal effects. The policies that have mainly lump-sum effects include cash rebates, increases in the standard deduction, increases in dependent exemptions and child tax credits, and individual credits for FICA taxes paid. Policies that also have substantial marginal effects include reductions in individual tax rates, changes to the earned income credit rates, and reduced rates of tax on capital gains and dividends of individuals.

Evidence on individual behavioral response to stimulus options

Individual response to rebates

The best evidence for the individual response to policies that are predominantly lump-sum in character comes from analyzing the effects of the tax rebates in 1975, 2001, and 2003. Several papers have explored the economic effects of these rebates, with the more recent papers generally finding that a significant portion of the rebates was spent on increased consumption in subsequent quarters.

These rebates were largely a lump-sum change, in the sense that they were based on past economic activity, and (with some administrative delay) took immediate effect. However, they also were put in place at the same time as marginal rate changes that were expected to be law for a number of years. As a result, a portion of the observed response to rebates may have been a response to an expected long-run decrease in tax liability. Hence, the evidence on the stimulative effects of the tax rebates probably provides an upper bound estimate of the expected stimulus that would be provided by a temporary change of a largely lump-sum nature.

1975 rebates

A number of studies have reviewed the impact of the temporary 1975 tax rebate, with somewhat conflicting conclusions. The 1975 rebate provided a 10-percent rebate of 1974 taxes up to a maximum of \$200 per taxpayer. One study⁵⁸ found that consumption increased 16 percent of the rebate amount in the quarter received and had larger effects in later quarters, while

⁵⁸ Alan Blinder, "Temporary Income Taxes and Consumer Spending," *Journal of Political Economy*, February 1981, 89, pages 26-53.

an earlier study⁵⁹ found much smaller effects. A subsequent study⁶⁰ using monthly consumption data found that consumption of nondurables increased by about 20 percent of the rebate amount in the month the rebate was received.

2001 rebates:

An early study of the 2001 rebates⁶¹ analyzed results from the University of Michigan Survey of Consumers (MSC) to find out how the rebates influenced taxpayers. At the time of the 2001 rebates, the MSC added a question that asked “will the tax rebate lead you mostly to increase spending, mostly to increase saving, or mostly to pay off debt?” The study found that only 22 percent of respondents said they would spend most of their rebates that they estimated that about a third of the rebate was consumed in the short-run. They also found no evidence that low income individuals were more likely to spend their rebate.

A later study⁶² using Consumer Expenditure Survey data found that recipients of the 2001 rebates spent between 20 to 40 percent of their rebates on non-durable goods during the three months after they received their rebates and about another third of their rebates during the subsequent three months.

Another study⁶³ used credit card data to show that consumers initially save some of their rebate, by reducing their credit card debt more rapidly. But soon afterwards their spending increased. The study found that consumption on an individual’s most actively used credit card rose by over \$200, about 40 percent of the average household rebate, in the nine months following the rebate.

⁵⁹ Franco Modigliani and Charles Steindel, “Is a Tax Rate an Effective Tool for Stabilization Policy?,” *Brookings Papers on Economic Activity*, 1:1977, pages 175-209.

⁶⁰ James Poterba, “Are Consumers Forward Looking? Evidence from Fiscal Experiments,” *American Economic Review*, May 1988, Volume 78, no. 2, pages 413-418.

⁶¹ See Matthew Shapiro and Joel Slemrod, “Consumer Response to Tax Rebates,” *American Economic Review*, 2003, volume 93, no. 1, pp. 274-83; and Matthew Shapiro and Joel Slemrod, “Did the 2001 Tax Rebate Stimulate Spending?,” National Bureau of Economic Research, working paper No. 9308, October 2002.

⁶² David S. Johnson, Jonathan A. Parker, and Nicholas S. Souleles, “Household Expenditure and the Income Tax Rebates of 2001” *American Economic Review* 96(5):, December 2006, volume 96, no. 5, pages 1589-1610. December 2006.

⁶³ Sumit Agarwal, Chunlin Liu, and Nicholas Souleles, “The Reaction of Consumer Spending and Debt to Tax Rebates--Evidence from Consumer Credit Data,” National Bureau of Economic Research, working paper No. 13694, December 2007.

2003 rebates

A study⁶⁴ of the 2003 rebate also used the MSC to find out whether taxpayers planned to spend or to save their tax cuts. The 2003 MSC added a question similar to the one on the 2001 MSC. The study estimated that rebate recipients spent an additional \$9.7 billion in the second half of 2003 owing to the combination of rebates and lower tax withholding. This is a bit less than a third of the \$35 billion amount of rebates and lower tax withholding in the same period. In the first half of 2004, spending was boosted by \$15 billion, or a bit more than a third of the \$42 billion cost of the rebates and lower withholding over that period.

Individual response to marginal tax rate changes

The response to individual marginal tax rate changes can occur in a number of ways, depending in part on whether the changes are permanent or temporary. Marginal rate changes do create a partial lump-sum effect because liability is reduced, even if there is no change in the taxpayer's economic activity. The additional marginal incentives for economic activity result from higher after-tax wages, thereby providing incentives to increase labor supply. If the marginal rate change is expected to last for a considerable period, then expected higher after-tax returns to saving also provide incentives to save more; and higher after-tax returns to investments that are taxed on individual returns (e.g., from sole proprietorships or partnership or S corporation income) provide incentives to invest more. Though studies evaluating the effects of marginal rate changes tend not to focus on demand aspects of their lump-sum effects, qualitatively, the lump-sum effects of marginal rate changes would still bear similarity to the results in the rebate section. However, marginal rate changes applied to all taxpayers will provide greater changes in the after-tax income of higher income individuals than lower income individuals because higher income individuals generally are taxed at higher statutory tax rates. Some studies⁶⁵ have found that lower income individuals are likely to spend a higher portion of their increase in after-tax income than individuals with higher incomes or more wealth. Thus, some have suggested that from a stimulus standpoint, lump-sum tax changes targeted to lower income individuals are likely to be more effective short-run stimulus policies than marginal rate changes.⁶⁶

⁶⁴ Julia Lynn Coronado, Joseph P. Lupton, and Louise M. Sheiner, "The Household Spending Response to the 2003 Tax Cut: Evidence from Survey Data," Federal Reserve Board, Finance and Economics Discussion Series 2005-32, July 2005.

⁶⁵ Johnson, Parker, and Souleles, *supra*.

⁶⁶ See Congressional Budget Office, *Options for Responding to Short-Term Economic Weakness*, January 2008; and Elmendorf and Furman, *supra*.

While there is considerable literature on both the savings response⁶⁷ and the labor supply response⁶⁸ to marginal rate changes, such responses seem unlikely to generate significant short-term stimulative effect, for reasons discussed below. (They may well, however, have longer-term growth effects.) There is also literature on the responsiveness of taxable income to marginal rate changes, but a significant portion of this response reflects timing of payments or shifting between economic forms of income that generally do not result in macroeconomic changes. To the extent that taxable income reflects underlying economic activity, such as changes in labor supply, capital formation, or savings response, it is addressed in the relevant literature. The effects on business investment incentives are discussed in the section below.

Evidence on macroeconomic response to stimulus options

Rigorous empirical evidence for the macroeconomic effect of individual stimulus incentives is quite hard to obtain. The core problem is that analysts only see macroeconomic data that have been affected by the response, and they do not know how the economy would have progressed in the absence of the stimulus. An econometric study would provide evidence of the effects of stimulative tax policy only when there are periods of economic slackness that are both comparable to the period of interest and that were not accompanied by fiscal stimulus. But there have been many significant changes to economic activity that make recession periods non-comparable—for instance, financial markets in 2008 are very different than those in 1968. Furthermore, the legislative history shows that nearly every recession is accompanied by fiscal stimulus legislation. Comparing economic variables in the period before and after a stimulus proposal does not show that it is effective, unless one can show that the economy would not have responded as it did, in the absence of the stimulus.

Macroeconomic response to rebates

The studies on the individual response to tax rebates mentioned above show that individuals who received the rebates saved a portion but also spent a notable proportion of their rebates. The portion that taxpayers saved seems unlikely to result in stimulus. Intuitively, the increased saving is likely to at least partially offset the additional government borrowing required to finance the rebates. The portion that taxpayers consumed does not necessarily result

⁶⁷ See Charles L. Ballard, “Taxation and Saving,” in John G. Head and Richard Krever (eds.), *Taxation Toward 2000*, Melbourne: Australian Tax Research Foundation, 1997, pp. 267 - 292; and Jane G. Gravelle, *The Economic Effects of Taxing Capital Income*, (Cambridge, MA: MIT Press), 1994, for summary descriptions of this research.

⁶⁸ See John Pencavel, (1986), “Labor Supply of Men: A Survey,” in Orley Ashenfelter and Richard Layard, eds., *Handbook of Labor Economics*, vol. I, Amsterdam: North-Holland, 1986, pp. 3-102; James J. Heckman, (1993), “What Has Been Learned About Labor Supply in the Past Twenty Years?,” *American Economic Review*, Papers and Proceedings, May 1993, vol. 83 no. 2, 116-121; Nada Eissa, and Jeffrey B. Liebman (1996), “Labor Supply Response to the Earned Income Tax Credit,” *Quarterly Journal of Economics*, May 1996, 111(2):605-637; and Nada Eissa, and Hilary W. Hoynes (2003), “Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit,” forthcoming, *Journal of Public Economics*. 204, vol. 88, 1931-1958.

in an increase in aggregate consumption, nor does it necessarily mean that aggregate employment or output are increased. Some have argued that increased interest rates owing to the government borrowing necessary to finance the lump-sum rebates might offset the intended stimulative effects. Taxpayers who do not receive the rebates could reduce their spending. Alternatively, higher interest rates might diminish investment incentives, with the result that, while individual consumption might increase for rebate recipients, this increase in demand for consumption could be offset by reduced demand for investment goods. Economic simulation models provide evidence of whether rebates spur overall economic activity.

Some analysts have used macroeconomic models—models used to forecast aggregate economic activity—to look for evidence on whether rebates spur overall economic activity. These models generally find that lump-sum tax changes do spur overall economic activity in the short run. A 2005 study by us (hereafter, JCT Staff Study)⁶⁹ addresses the effect of a permanent increase in the personal exemption. The increased personal exemption decreased liability in 2005 by \$34 billion (about 0.3 percent of GDP). As a result, in 2005, real GDP was estimated to increase by 0.1 percent, real consumption by 0.2 percent, and employment by 0.1 percent; the real capital stock was roughly unchanged.

In a 2002 study, which used a macroeconomic model, the analysts examined the effects of a \$100 billion rebate (about one percent of GDP), with no accompanying change in marginal tax rates. In their base case scenario, they found effects only for the quarter in which the rebate was issued, and not for subsequent quarters.⁷⁰ The analysts found that for the quarter of issue, there was a 0.3 percent increase in real GDP at an annual rate (implying that for the year as a whole, GDP was 0.08 percent higher, or \$7.5 billion higher than it otherwise would have been); a one-half percent increase in real consumption at an annual rate (so an eighth of a percent increase for the year as a whole), and essentially no change in employment or the real capital stock. Demonstrating the sensitivity of the results to the spending response of consumers, the analysts also ran simulations assuming that a larger share of consumers spent the rebate, motivated by the results of the analysis of MSC survey data discussed above. In this scenario, consumption and GDP are considerably more responsive in the quarter of issue, but there is a negative effect in the subsequent quarter that diminishes the overall effect for the year as a whole. The study did not report quantitative figures, but the graphs appear to imply an overall total of approximately one-half to two-thirds of one percent of stimulus to both real GDP and consumption from the rebate. Both employment and capital investment rise somewhat in the short run.

Macroeconomic response to marginal rate changes

As a practical matter, macroeconomic models show most of the short-run stimulative effect of marginal rate changes as coming from the lump-sum tax liability decrease associated

⁶⁹ Joint Committee on Taxation, *Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief*, (JCX-4-05), March 1, 2005.

⁷⁰ Douglas W. Elmendorf and David L. Reifschneider, “Short-Run Effects of Fiscal Policy with Forward-Looking Financial Markets,” *National Tax Journal*, Vol. 55, No. 3, September 2002, pp. 357-386.

with those changes. The marginal incentives to increase savings, while potentially leading to additional investment and growth in the long run, seem unlikely to have a stimulative effect in the short run unless there is a shortage of loanable funds, which does not seem to be the case in the present period. Further, the incentive to increase saving may be offset by anticipated higher interest rates resulting from the need to finance the marginal rate cuts (unless offset by spending cuts or other tax increases). The marginal incentive to increase labor supply, while also potentially leading to increased growth in the long run, as the capital stock adjusts upward to the increased labor supply, also seems unlikely to have a stimulative effect in the short run, assuming that the economy is beginning to experience rising unemployment.

One source of evidence on short-run effects of individual rate changes is provided by the JCT Staff Study. The lower rates decreased liability in 2005 by \$25 billion (about 0.2 percent of GDP). As a result, in 2005, real GDP is pushed up by 0.1 percent, real consumption by 0.3 percent and employment by 0.1 percent, and the real capital stock is roughly unchanged. These results are similar to those for the personal exemption increase of the same amount. The effects of these two proposals on GDP start to diverge in the first year after implementation, indicating the difference in long-run growth incentives between the two types of proposals.

A study by the CBO in 2005⁷¹ examines the effect of a 10 percent, across the board, individual marginal rate cut (e.g., in this study, a taxpayer who faces a 28 percent marginal rate would have his marginal rate cut to 25.2 percent). The CBO does not report very short-term effects, but rather shows the effects for the first five years and the second five years. The JCT conventional estimate of the cost of the tax cut over the first five years amounts to about 0.75 percent of GNP. Over the same period, the CBO analysis suggests that the tax cut results in real GDP that is between 0.5 and 0.8 percent higher (depending upon which model is used). The CBO does not report consumption or employment or capital investment.

A 2002 study⁷² examined sustained marginal rate cuts totaling one percent of GDP on a static basis; this magnitude of tax reduction translates into slightly more than a 10-percent across the board rate cut. The study does not provide quantitative results, but rather graphic results. In the study's base case scenario, it appears that the study finds that real GDP rises by a bit less than half a percent over the first year after the rate cut, while real consumption rises about two-thirds of a percent during the same period. Unemployment declines by about an eighth of a percent while the capital stock falls somewhat. In a scenario in which taxpayers consume more of their decrease in tax liability, the responsiveness of real GDP and real consumption appears to be between a third and a half more than their base case scenario.

The longer-run analysis in both the JCT Staff Study and the 2005 CBO study explores the impact that sustained tax cuts can have on the economy, depending on whether and how long-run fiscal balance is achieved. The lesson from these discussions is that growing Federal

⁷¹ Congressional Budget Office, *Analyzing the Economic and Budgetary Effects of a 10 Percent Cut in Income Tax Rates*, Washington, DC, 2002.

⁷² Elmendorf and Reifschneider, *supra*.

Government deficits would retard economic growth rather than stimulate it, if left unchecked. For this reason, recent articles on fiscal stimulus⁷³ have emphasized the desirability of temporary over permanent measures. Rebates generally are thought to be more conducive to temporary implementation than rate changes.

⁷³ See, for example, Ben S. Bernanke, Chairman of the Board of Governors of the Federal Reserve System, “Statement before the Committee on the Budget, U.S. House of Representatives,” January 17, 2008; Congressional Budget Office, *Options for Responding to Short-Term Economic Weakness*, January 2008; and Elmendorf and Furman, *supra*.

C. Evidence Related to Business Income Provisions

Business income tax provisions may be designed to increase the income of businesses or alter the return to investment activity, or policies may incorporate both effects. Extension of the period for net operating loss carry back is principally of the former category; though it could in some circumstances affect the timing of investment. Corporate rate reductions increase the return to new investments going forward, but they also increase after-tax corporate income immediately by improving the after-tax return on investments previously made. While empirical evidence on the short-run impact of these changes is limited, this section provides a review of economic analyses of the effects of these and other provisions on the economy.

1. Bonus depreciation and expensing

Bonus depreciation is partial expensing for investment in certain plant and equipment. For bonus depreciation to have a stimulative impact on short-run aggregate demand, or a long-run impact on macroeconomic growth, it is necessary that the depreciation change influence the behavior of individual firms. One study reports take-up rates for bonus depreciation for tax years 2002 through 2004 ranged from 54 to 61 percent for C corporations and 65 to 70 percent for S corporations.⁷⁴ The author notes that loss firms, firms with loss or credit carry forwards, and firms that generated new credits may not have benefited sufficiently from the bonus depreciation to avail themselves of it. This would make bonus depreciation a less attractive option if firms are likely to have large stocks of accumulated losses. Also, most states did not conform to the Federal provisions, likely reducing take-up rates. Firms that do not find the benefits of accelerated depreciation large enough to induce them to claim them are unlikely to increase their investment in response to them.⁷⁵ Claiming bonus depreciation does not mean that new investment in fact took place, as bonus depreciation is available to investments that would have been made even in the absence of the availability of bonus depreciation. Thus, while over half of all C and S corporations claimed bonus depreciation, various surveys indicate bonus depreciation may have been an important factor in determining the level or timing of investment for only 10 percent of businesses.⁷⁶

Indeed, several studies find modest effects from the bonus depreciation of 2002 through 2004. While aggregate real expenditures on certain types of investment appear to correspond to the predicted impact of bonus depreciation, further examination of the data suggests more

⁷⁴ Matthew Knittel, "Corporate Response to Accelerated Depreciation: Bonus Depreciation for Tax Years 2002-2004," Office of Tax Analysis Working Paper 98, Department of the Treasury, May 2007.

⁷⁵ Matthew Knittel, "Small Business Utilization of Accelerated Tax Depreciation: Section 179 Expensing and Bonus Depreciation," *Proceedings of the National Tax Association, Ninety-Eighth Annual Conference*, National Tax Association, Fall 2005.

⁷⁶ Darrel S. Cohen and Jason Cummins, "A Retrospective Evaluation of the Effects of Temporary Partial Expensing," Federal Reserve Board, Finance and Economics Discussion Series, Working Paper No. 2006-19, April 2006.

ambiguity. Long-lived assets which should have benefited more from the provisions than short-lived assets did not exhibit any greater investment.⁷⁷

Another study notes that while aggregate effects may have been modest, bonus depreciation may have had a more substantial impact on the composition of investment, favoring those assets which qualified for the provisions.⁷⁸ Estimates suggest investment in certain long-lived assets (such as farming and rail structures) increased by as much as 28 percent, while investment in nonqualifying assets (e.g., residential structures) actually contracted. Overall, GDP expands between 0.07 percent and 0.14 percent while employment rises by roughly 100,000 to 200,000. The expiration of the provisions contributes to the effect as firms accelerate their investments to qualify. Acceleration of planned investment can be helpful in boosting the economy during a downturn; this effect is clearly temporary, as investment would decline modestly after the bonus depreciation allowance expires. However, others note that the usual conclusion that a temporary investment incentive will have a greater short-term effect on investment than a permanent tax change does not necessarily hold once general equilibrium considerations are taken into account.⁷⁹

2. Investment tax credit

In contrast to bonus depreciation, an investment tax credit (“ITC”) provides a net decrease in total tax liability, in addition to a deceleration of tax liability. Evidence about the impact of the ITC on economic stimulus and stabilization is mixed. Some early work found little evidence that the ITC was an effective fiscal policy tool.⁸⁰ Not only was it expensive—each dollar of net revenue loss raises output between \$0.51 and \$0.85 – but also it may have had destabilizing effects exacerbated by anticipations of policy changes with respect to the tax treatment of investment. Crowding out of non-favored investment may have been sufficient to offset a large percentage of the increase in the capital stock. Indeed, some have suggested that gains from reduced distortion across assets due to repeal of the ITC in 1986 were significant when measured against the losses from a higher cost of capital resulting from repeal.⁸¹ In addition, one author finds that capital suppliers may capture much of the benefits of the ITC

⁷⁷ *Ibid.*

⁷⁸ Christopher House and Matthew D. Shapiro, “Temporary Investment Tax Incentives: Theory with Evidence from Bonus Depreciation,” National Bureau of Economic Research, working paper no. 12514. September, 2006.

⁷⁹ Rochelle M. Edge and Jeremy B. Rudd, “Temporary Partial Expensing in a General Equilibrium Model,” Federal Reserve Board, Finance and Economics Discussion Series, Working Paper No. 2005-19, April 2005.

⁸⁰ Alan J. Auerbach and Lawrence H. Summers, “The Investment Tax Credit: An Evaluation,” National Bureau of Economic Research Working Paper No. 404, November 1979.

⁸¹ Alan J. Auerbach, “The Deadweight Loss from Capital Income Taxation,” *Journal of Public Economics*, vol. 40, 1989. pp. 1-36.

through higher prices rather than the benefits flowing to investing firms.⁸² However, others have found the ITC to have large effects for favored equipment and a smaller impact on gross investment. As much as 10 percent of investment in favored sectors may be attributable to the ITC.⁸³

Macroeconomic model estimates have suggested the design of an effective ITC. One study suggests that a 10-percent permanent ITC lowers the user cost of capital 10 percent and would raise the capital stock by six percent. The authors estimate the largest “bang for the buck” would result from an ITC on producers’ durable equipment above a moving base (growing with nominal GDP).⁸⁴ Others estimate that a 10-percent permanent ITC would lower the user cost of capital by as much as 14 percent. This would provide a substantial economic stimulus buy with a lag of several quarters.⁸⁵ Another author estimates that a 1.5-percent temporary investment subsidy raises output growth by 0.8 percentage points (compared with 0.65 percentage points when the subsidy is permanent) in the quarter in which the credit is implemented. Growth falls by one percentage point in the quarter when the credit expires. A permanent subsidy leads to more capital deepening in the long term, with a greater cost in terms of foregone revenue.⁸⁶ However, there may be timing effects from a temporary ITC.⁸⁷

3. Corporate tax rate reductions

The JCT Staff Study referenced earlier also estimated the macroeconomic impact of corporate rate reductions.⁸⁸ A decrease in the corporate income tax rate primarily affects the economy through increasing the after-tax rate of return on corporate capital, which provides

⁸² Austan Goolsbee, “Investment Tax Incentives, Prices, and the Supply of Capital Goods,” *Quarterly Journal of Economics*, Vol 113, No. 1, February 1998, pp. 121-148.

⁸³ Robert E. Hall and Dale W. Jorgenson, “Tax Policy and Investment Behavior,” *American Economic Review*, Vol 57 No. 3, June 1967, pp. 391-414. Reprinted in Dale W. Jorgenson, *Investment: Tax Policy and the Cost of Capital*, MIT Press, 1996.

⁸⁴ Laurence H. Meyer, Joel L. Prakken, and Chris P. Varvares, “Designing an Effective Investment Tax Credit,” *Journal of Economic Perspectives*, vol. 7, No. 2, Spring 1993. pp. 189-1996.

⁸⁵ Elmendorf and Reifschneider. *supra*. Because they do not report the cost of this ITC as a share of GDP, it is difficult to interpret their results. Small short-run effects may owe to a small tax cut or to minimal responsiveness.

⁸⁶ Paul Gomme, “Evaluating the Macroeconomic Effects of a Temporary Investment Tax Credit, Federal Reserve Board of Cleveland Policy Discussion Paper No. 3, January 2002. Available at SSRN: <http://ssrn.com/abstract=1025459>.

⁸⁷ Andrew Abel, “Dynamic Effects of Permanent and Temporary Tax Policies in a Model of Investment,” *Journal of Monetary Economics*, vol 9, 1982, pp. 353-375.

⁸⁸ Joint Committee on Taxation, *Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief*, (JCX-4-05), March 1, 2005.

incentives for investment in corporate capital. Over time, this increased investment results in more goods and services increasing total output. It also raises labor productivity, leading to higher after-tax income for workers, which may stimulate additional growth due to increased consumer demand. Real GDP is predicted to be 0.3 percent higher the first year following a permanent corporate rate cut. Employment rises nearly 0.4 percent. Consumption is nearly flat in the first year, but rises thereafter. A temporary change such as might be instituted for short-run stimulus purposes could have perverse effects on investment, as it would lower the value of initial depreciation deductions, while preserving the higher tax rate on future profits. Thus, the corporate tax rate reduction generally has the greatest effect on long-term growth.

IV. DESIGN ISSUES IN IMPLEMENTING A CASH REBATE TO INDIVIDUALS

A. Recent Cash Rebates

As described above, on three occasions the Congress has adopted a policy of fiscal stimulus in part by providing cash to individuals based on each individual's tax return information. These cash payments often are described as tax "rebates." Two such stimulus programs have been used during the last decade. Each is briefly summarized immediately below. The remainder of this section then turns to the question of how best to design a rebate program in light of three sometimes-conflicting constraints: (1) the targeting of particular individuals as the recipients of the tax rebates, (2) the desire to distribute the rebates as quickly as possible, and (3) the administrative and systems limitations of the agencies that are charged with distributing the rebates.

Rate reduction credit in EGTRRA 2001

EGTRRA became law in June 2001, shortly after the 2000 tax return season (the period during which the IRS processes most individual income tax returns) had concluded. EGTRRA included a "rate reduction credit" for 2001 (i.e., the then-current year), paid in advance beginning in June of that year, to deliver economic stimulus to the economy. The rate reduction credit was designed to give taxpayers the benefit of EGTRRA's reduction of the lowest income tax bracket, from 15 percent to 10 percent, on the first \$6,000 of taxable income (in the case of a single taxpayer), retroactive to January 1, 2001, and to pay that amount immediately (rather than in reduced tax liability reflected on 2001 tax returns filed in 2002). The credit was set at \$300 for a single taxpayer, because that amount equaled the difference between a 15 percent tax and a 10 percent tax on \$6,000 of income.

Most taxpayers received this credit in the form of a check issued by the Department of the Treasury. The amount of the check effectively was computed as the lesser of (1) the maximum amount of benefit a taxpayer could obtain in 2001 from the reduction of the lowest tax bracket (i.e., \$300 for a single taxpayer) or (2) the taxpayer's actual tax liability on the taxpayer's 2000 tax return (i.e., the prior year's return). When taxpayers filed their 2001 tax returns in 2002, they were required to complete a worksheet to calculate the actual credit to which they were entitled in 2001, based on their actual tax return information. (Such an arrangement is referred to as a "true-up" mechanism.) If a taxpayer's actual credit exceeded the check the taxpayer had received in 2001 (for example, because the taxpayer had no tax liability in 2000 but did in 2001), the taxpayer claimed a credit against 2001 tax liability. If the check was greater than the credit, the taxpayer was not required to repay that amount. As a result, the rate reduction credit mechanism effectively gave taxpayers the better of a rate reduction in respect of 2001 income or in respect of 2000 income.

Child tax credit in JGTRRA 2003

JGTRRA became law in May 2003. It included an increase of the child tax credit from \$600 to \$1,000. This \$400 per child increase in the credit for 2003 was paid in advance beginning in July 2003, on the basis of information on the 2002 tax return. As in 2001, a true-up

system had taxpayers complete a worksheet to calculate the actual child tax credit based on their 2003 tax return. If the actual credit to which a taxpayer was entitled for 2003 exceeded the cash payment that the taxpayer received in 2003 (e.g., if a child was born in 2003), the taxpayer could claim the additional credit against 2003 tax liability when the 2003 tax return was filed in 2004. If the 2003 cash payment was greater than the credit (e.g., if a child became 17 in 2003), the taxpayer was not required to repay that amount. Again, therefore, taxpayers effectively obtained the better of an increased child credit for 2002 or for 2003.

B. Design Issues

1. Overview

There are two main policy design issues to consider when formulating a tax-based cash stimulus: (1) the policy goal of who should receive the stimulus rebates (targeting); and (2) the policy goal of getting cash out quickly (timeliness). Both of these goals, however, are constrained in practice by administrative and system limitations at the agencies that are charged with distributing the cash payments.

The Federal government has two large tax-based databases that, at least in theory, could provide the platform for delivery of a tax-based cash rebate: the tax records of the Internal Revenue Service (IRS) and the payroll tax records of the Social Security Administration (SSA). In very general terms, both agencies' systems have been designed to accommodate their normal year-to-year responsibilities, rather than to calculate, on relatively short notice, the cash payments due to a relevant population of taxpayers in excess of 100 million, and then process and deliver those cash payments within a short time period. The limitations of available systems therefore may affect both the ability of policy makers to target particular populations (e.g., where information is not available) and the speed with which cash rebates can be distributed.

2. Policy goal of who should receive the stimulus rebates

Which individuals should receive the rebates?

Previous stimulus efforts have been both distributed to taxpayers generally and targeted more specifically towards certain taxpayer populations (e.g., beneficiaries of the earned income tax credit or child tax credit). It is possible, however, to imagine targeting a tax-based cash stimulus to other taxpayer populations as well. For example, the stimulus could be directed to any of the following: the group of all filers of income tax returns, all payors of income tax (to the extent thereof), a defined subset of all income tax filers or taxpayers, all payroll taxpayers, a subset of all payroll taxpayers, individuals not filing income tax returns or making FICA contributions (lower-income retirees), and Social Security beneficiaries.

All persons who file an income tax return.—This group includes all taxpayers filing a tax return for a given year, regardless of whether the return shows a net tax liability due. In 2006, 138 million individual income tax returns were filed. This figure in turn reflects many more individuals than that, because spouses and dependents typically file one return. The 138 million returns include, however, returns of individuals, primarily children, who were claimed as a dependent by another taxpayer, but who were required to file a return in their own names, because they earned income above the relevant threshold; in 2006, there were about nine million such returns.

In addition to including individuals who have sufficient income to be required to file a return but who have no net tax liability, this group also includes individuals who meet the income levels for filing and who do not incur payroll tax liability (such as retirees). This group would exclude individuals who have no obligation to file tax returns (those whose incomes are below the threshold required to file and are not claiming a refundable tax credit).

Subset of persons filing an income tax return.—If policy makers believe that some subsets of return filers are more likely to spend a cash rebate than other subsets of return filers, policy makers may wish to target cash rebates to a subset of all return filers. Using IRS return data, it is possible to specifically target a group or groups of income taxpayers. For example, the 2003 rebate was targeted to those who filed returns with a child eligible for the child tax credit. Of course, subject to limitations discussed below, many possible subsets could be defined. The 1975 cash rebate was limited to those persons with a positive 1974 tax liability. Like 1975, the 2001 cash rebate was limited to taxpayers who in effect had a positive 2000 or 2001 tax liability (after any nonrefundable credits claimed).⁸⁹

All payroll taxpayers.—This group includes all individuals who make FICA or SECA contributions during a given year. The SSA’s records reflect approximately 160 million persons in this category annually. This group includes the working poor that earn income and are subject to payroll taxes, but who are not required to file an income tax return. This group excludes retirees who are not currently working and paying payroll taxes.

Payroll taxes are tracked by individual. As a result, the 160 million figure reflects the separate status of husband and wife, where both work and pay payroll taxes. It also includes dependent children and other dependents who work and incur payroll tax liability.

Some persons included in this group are subject to the 2.9 percent HI portion of the payroll tax, but not the 12.4 percent OASDI portion, because their current employment is grandfathered from inclusion in the Social Security retirement system. Examples of such persons are employees of certain state governments.⁹⁰ In 2004, for example, roughly 3.7 million person fell into this category.

Subset of all payroll tax taxpayers.—The payroll tax is based on wages earned, so in principle it could be possible to define subsets of payroll tax taxpayers by the amount of wages earned. For example, the OASDI portion of the FICA and SECA taxes has a wage base limitation (\$97,500 in 2007). The JCT staff estimates that, in 2007, some 143 million individuals had annual income subject to the payroll tax that was less than or equal to the OASDI wage base limitation.

Those not filing income tax returns or incurring payroll tax liability.—This group includes lower-income retirees as well as some unemployed individuals. The JCT Staff estimates that for 2007 approximately 31 million individuals are not subject to payroll taxes and do not file an income tax return. Many recipients of Supplemental Security Income payments from the SSA fall into this category.

⁸⁹ As described in Part II, above, the 2001 legislation also provided for a “true up” so that an amount equivalent to the cash rebate could be claimed by certain taxpayers on their 2002 return if they had not received a cash rebate.

⁹⁰ Certain Federal employees are also exempt from OASDI. These include Federal employees covered under the Civil Service Retirement System (the predecessor of the current Federal Employee Retirement System). Employees in certain local government employment also are exempt.

Social Security beneficiaries and recipients of Supplemental Security Income.—This group includes all those currently receiving benefits from the SSA, regardless of whether they receive retirement, disability, or survivorship benefits. These individuals may or may not file individual income tax returns and may or may not have a current payroll tax liability.

Distribution of income taxes and employment taxes

Many different statistics are employed to measure the number of U.S. taxpayers. While useful in specific contexts, not all of the reported figures are comparable. For example, as described above, the SSA reports that there are approximately 160 million persons with earnings subject to FICA or SECA taxes in the U.S. population. Most, but not all, of these individuals also appear on income tax returns that are filed.

Table 6, below, includes the JCT Staff’s estimates of the number of individual income tax units in the United States by different tax characteristics. An “income tax unit” follows how taxpayers choose to file their returns—for example, as joint, head of household, or single filers. For individuals in the U.S. population who do not file returns, the JCT Staff assigns a filing status on the basis of a statistical model. A dependent who files his/her own return is counted as a separate income tax unit.

The first row of Table 6 shows an estimate of the total number of income tax units in the U.S. population. The second row estimates the number of these income tax units who will not file a return in 2007. The third row shows an estimate of the number of income tax units who will file returns in 2007.

**Table 6.—Selected Estimates of the Number of Income Tax Units, 2007
Values in Millions**

| | |
|--|--------------|
| Number of income tax units⁽¹⁾ | 165.0 |
| Less income tax units who do not file tax returns | 28.8 |
| Equals number of income tax units who file tax returns | 136.3 |
| Number of income tax units filing returns showing a positive income tax liability | 93.9 |
| Number of income tax units filing a return showing a zero income tax liability | 16.1 |
| Number of income tax units filing a return showing a “negative” income tax liability from refundable credits | 26.3 |

Source: Joint Committee on Taxation. Details may not add to total due to rounding.

¹ An income tax unit comprises those individuals who actually file one tax return, or who would file a tax return if the adjusted gross income threshold for being required to file a return were set at zero. For example, a husband and wife (not themselves claimed as dependents on another’s return) and their minor child who is their dependent constitute one income tax unit, regardless of whether the family is obligated to file a return.

Table 7, below, summarizes the distribution of individual income taxes and payroll (FICA and SECA) taxes by reference to taxpayers' incomes (measured as reported on income tax returns). The individual income tax and payroll taxes are designed with different policy objectives. The individual income tax provides the primary revenue base for the general operation of the Federal government, while the payroll taxes fund dedicated social insurance trust funds. Table 7 shows that the two types of taxes represent very different portions of the aggregate Federal taxes paid by income tax units at different income levels.

The JCT Staff estimates that for 2007, of the approximately 165 million income tax units as shown in the first row of Table 6, approximately nine million are individuals who are required to file a separate return but are claimed as dependents on another's return, and approximately two million are returns of taxpayers with negative adjusted gross income. The JCT Staff distributes the remaining 154 million income tax units by income in the second column of Table 7. These 154 million returns include tax returns of persons with zero income tax liability. After removing these taxpayers, the third column of Table 7 shows the distribution of the remaining 115 million income tax units. The 115 million income tax units in the third column either have a positive income tax liability or claim a refundable tax credit.

Because Table 7 does not report returns of dependent filers,⁹¹ the 154 million income tax units reflected in Table 7 do not include all persons with a payroll tax liability. As previously noted, the SSA reports that approximately 160 million persons annually are credited with payroll taxes paid. However, the 160 million persons include working couples who for income tax purposes file a joint return. The fifth column of the table counts such couples as one income tax unit. Consequently, after deleting dependent returns and counting joint filers as one income tax unit, the JCT Staff estimates that, in 2007, 112 million income tax units will have made some FICA or SECA contributions.

⁹¹ The 115 million returns shown in Table 7 are less than the sum of the tax returns filed with a positive or negative tax liability as shown in Table 6 (the sum of rows four and six). This is because Table 7 excludes the filed tax returns of dependent filers while Table 6 includes the returns of dependent filers.

**Table 7.—Distribution of Individual Income Taxes and Employment Taxes
Calendar Year 2007**

| Adjusted Gross Income Category ^[1] | Total Number of Income Tax Units ^{[2][3]} | Individual Income Taxes ^[4] | | Employment Taxes ^{[5][6]} | |
|--|--|--|---------------------|--|---------------------|
| | Millions | Income Tax Units ^[3] Millions | Dollars Billions | Income Tax Units ^[3] Millions | Dollars Billions |
| Less than \$20,000 | 62 | 25 | -\$28 | 29 | \$47 |
| \$20,000 to \$40,000 | 32 | 31 | 19 | 28 | 122 |
| \$40,000 to \$50,000 | 11 | 11 | 34 | 10 | 65 |
| \$50,000 to \$75,000 | 20 | 20 | 104 | 18 | 156 |
| \$75,000 to \$100,000..... | 12 | 12 | 98 | 11 | 131 |
| \$100,000 to \$200,000 | 13 | 13 | 236 | 13 | 211 |
| \$200,000 to \$500,000 | 3 | 3 | 197 | 3 | 67 |
| \$500,000 to \$1,000,000 | 1 | 1 | 100 | 1 | 15 |
| \$1,000,000 and over..... | [7] | [7] | 280 | [7] | 16 |
| TOTAL | 154 | 115 | \$1,039 | 112 | \$830 |

Source: Joint Committee on Taxation.

Details may not add to total due to rounding.

^[1] Adjusted gross income includes income from all sources less certain exclusions such as contributions to retirement accounts.

^[2] Includes both income tax units that file and do not file income tax returns. Individuals who are dependents of other taxpayers (even if required to file a separate return) and taxpayers with negative income are excluded.

^[3] An income tax unit comprises those individuals who actually file one tax return, or who would file a tax return if the adjusted gross income threshold for being required to file a return were set at zero. For example, a husband and wife (not themselves claimed as dependents on another's return) and their minor child who is their dependent constitute one income tax unit, regardless of whether the family is obligated to file a return.

^[4] Individual income taxes are net of refundable tax credits.

^[5] Employment taxes include the employee and employer share of FICA taxes and SECA taxes.

^[6] This tabulation does not include all employment taxes paid by individuals who do not file income tax returns. A reliable distribution of employment taxes paid by these individuals is not currently available.

^[7] Fewer than 500,000 income tax units.

The discussion above also indicated that there are persons who earn wages, and thereby generally are subject to payroll taxes, but who do not file an income tax return. Some of these persons in fact have income tax liability and intentionally do not file required income tax returns, but most such persons are not required to file tax returns. Table 8, below, provides more information about these individuals.

Table 8 reports JCT Staff projections for 2007 of persons with no income tax liability including persons who may claim refundable tax credits. The top half of the table categorizes income tax units that alternatively file a return or do not file a return by reference to whether (or not) the units have wage income (and therefore payroll tax liability). The bottom half of the table reports similar data by number of persons.

The JCT Staff estimates that in 2007 there were approximately 66.3 million income tax units (representing 80.8 million persons) who either report no income tax liability or claim a refundable credit. The 66.3 million income tax units include approximately 37.5 million returns that will show no income tax liability (or that claim a refundable credit); approximately 28.8 million units will not file returns. The majority of the returns shown in column one are filed to claim refundable income tax credits.

As column one of Table 8 shows, approximately 32.8 million individuals with wage income will not have an income tax liability, but will file an income tax return. Phrased differently, Table 8 shows that most income tax units (or persons) without income tax liability but with wage income do file income tax returns. Conversely, most nonfilers have no material wage income.

The 66.3 million income tax units reported in Table 8 include approximately 26 million income tax units who are estimated to claim refundable credits. That fact means that roughly 40 million income tax units reported on Table 8 have zero income tax liability and do not claim refundable tax credits. Subtracting this figure in turn from the 154 million income tax units with which Table 7 begins ties Table 8 back to Table 7, because Table 7's column totals show 115 million income tax units with positive tax liability or with refundable tax credits.

The JCT Staff continues to research the underlying methodologies whose results are summarized in Table 8. In particular, while the preliminary results of our ongoing research are consistent with the total number of income tax units and persons reflected in Table 8, that ongoing research also suggests that the existing methodology understates significantly the number of income tax units (and persons) who have wage income but do not file income tax returns. Wage and payroll tax liability information for persons who do not file tax returns is quite limited. As a result, Table 8's estimates of persons not filing a tax return should be used with caution.

**Table 8.—Income Tax Units and Individuals with No Reported
Income Tax Liability, 2007
Values in Millions**

| | Filing Return | Not Filing Return | Total |
|--|--------------------------|------------------------------|--------------|
| Income Tax Units⁽¹⁾⁽²⁾ | | | |
| With any wage income/payroll tax liability ⁽⁴⁾ | 29.4 | 0.6 | 30.0 |
| Without wage income | 8.1 | 28.2 | 36.3 |
| TOTAL | 37.5 | 28.8 | 66.3 |
| Workers/Number of Individuals⁽³⁾ | | | |
| With any wage income/payroll tax liability ⁽⁴⁾ | 32.8 | 0.7 | 33.5 |
| Without wage income | 16.7 | 30.6 | 47.3 |
| TOTAL | 49.5 | 31.2 | 80.8 |

Joint Committee on Taxation.

Details may not add to total due to rounding.

^[1] An income tax unit comprises those individuals who actually file one tax return, or who would file a tax return if the adjusted gross income threshold for being required to file a return were set at zero. For example, a husband and wife (not themselves claimed as dependents on another's return) and their minor child who is their dependent constitute one income tax unit, regardless of whether the family is obligated to file a return.

^[2] Does not include earnings or tax liabilities of dependents who may be associated with the income tax unit.

^[3] Excludes dependent filers.

^[4] Excludes income tax units who fail to file required returns.

3. Administrative capabilities of IRS, SSA and FMS

This section discusses the administrative capabilities of both the IRS and the SSA to compute, process, and pay tax-based cash rebates to a large number of individuals. This section describes our understanding of the two agencies' respective filing seasons, the taxpayer information available to these agencies, and general processing resources.

Neither the IRS nor the SSA directly mails checks to taxpayers. That function is handled by the Financial Management Service (FMS), which is the paying arm of the Federal government. The ability of either the IRS or the SSA to process and mail checks to taxpayers therefore is limited by the capacity available to the Federal government through the FMS.

Among other duties, the FMS must use its resources to make all the routine vendor payments of the Federal government, provide for the delivery of Social Security payments, and provide regular tax refund checks (or direct deposits) to taxpayers. The FMS also uses an offset program that institutes levies against Federal and State tax delinquencies and non-tax debts (such as delinquent child or spousal support payments). The FMS believes that beginning approximately in June, after the majority of annual tax refunds are issued, it would have capacity to process and mail eight to nine million paper checks per week. This capacity constraint explains why the 2001 tax rebate was distributed over a 10-week period.

Internal Revenue Service

The IRS has begun its current (2007) filing season. The filing season begins during January with early filers and builds to its peak on April 15th. The peak filing season concludes at the end of May after processing the returns filed on April 15th and making refund payments. During this time IRS will process over 130 million individual income tax returns and authorize refunds totaling over \$250 billion. The filing season generally concludes after processing extended returns that are filed by October 15th.

Each year, the IRS develops a specific processing system for that year's tax returns, reflecting the tax laws in effect for that year. Because of the complexity of the tax Code, and the interaction among many of its provisions, the development and testing of this system is a time and resource intensive undertaking. Once a filing season has begun, the processing system for that year is essentially "locked down." This means, for example, that if the Code were to be amended in February 2008 to give a retroactive credit or rebate for 2007, the IRS would not be able to adjust its processing system for 2007 returns that had not yet been filed.

The IRS performs several important functions when processing tax returns. For example, the processing system performs procedures to check for and correct math errors. The processing system also checks for various anomalies, and performs a number of checks on various tax benefits claimed by taxpayers. Thus, for example, the processing system automatically checks the Social Security numbers of children for whom the child tax credit is claimed against the SSA's master list of social security numbers. The processing system also contains a program that offsets any refund shown as due against amounts owed to the Federal government. For example, the processing system automatically offsets refunds claimed against unpaid prior year Federal tax liabilities.

During the peak filing season, the IRS can process up to roughly 15 million tax returns per week. The IRS's systems post successfully processed returns every Sunday. If a refund is owed, that information is conveyed to the FMS on Tuesday. If the taxpayer has arranged for direct deposit (electronic funds transfer, or EFT) of a refund, the FMS ordinarily makes the EFT on Friday. If the taxpayer has not arranged for EFT, then a paper check is mailed one week later (the following Friday). Thus, in the ordinary course of a filing season, a taxpayer receives a paper check roughly 10 days after the taxpayer could have received an EFT – and of course at that point the taxpayer still must deposit the check.

The IRS expects that roughly 60 million taxpayers will use EFT for their 2007 refunds. Of this number, approximately 20 million represent "refund anticipation loans," where by

agreement the refund goes to a special account owned both by the taxpayer and the financial institution making the loan. These accounts are not suitable for the delivery of subsequent rebates for which refund anticipation loans have not been advanced. This leaves, however, a universe of approximately 40 million taxpayers who could obtain a rebate in 2008 electronically, if the relevant tax year that was used to calculate the rebate amount was 2007.

Once a return is processed, the data is stored by the IRS in two principal databases: a master file database for each taxpayer as well as separate databases for each filing season (e.g. 2006, 2007, etc). The master file is a summary file that includes each taxpayer's identification number, current address, and account balance (amount due the IRS or refund due the taxpayer). The IRS also maintains taxpayer data by return filings. Thus, family units may be linked if joint returns are filed and children will be linked through a dependency exemption.

The transaction file for each filing season contains each taxpayer's primary Form 1040 tax characteristics. The transaction file includes most items located on Form 1040, which includes EFT information for an estimated 60 million taxpayers. Information not in an annual transaction file is not readily available to the IRS to use in connection with the calculation of a tax-based cash rebate. In particular, the 2007 IRS transaction file will not contain information about the FICA (payroll) contributions made by taxpayers until many months after the peak filing season is finished, after the SSA reconciles all the information furnished to it. As a result, the IRS will not be in a position in the first half of 2008 to calculate the sum of a taxpayer's 2007 income and payroll tax liabilities.

These IRS databases are static; once a tax return is processed, therefore, a separate processing system must query the databases to calculate any tax-based amount, such as a rebate. If the IRS is requested to process a tax-based stimulus rebate, it must therefore build an appropriate calculation engine and data processor, just as it does for each taxable year in the ordinary course. The time required to build and test this processing system will depend on the complexity of any rebate package passed into law, but the IRS has advised us that it anticipates taking at least 60 days to develop the requisite system. The IRS could undertake this work in parallel with its processing of 2007 tax returns during the peak tax return season (which, as noted earlier, runs until some time in May).

In sum, in order for the IRS to calculate, process and direct the FMS to pay a tax-based cash rebate, the IRS must first build and test a special purpose processing system, the IRS must be able readily to obtain the requisite information contemplated by the new law, and the IRS must have the systems resources effectively to reprocess the roughly 130 million returns it had already processed for the year selected. The IRS's systems are today completely committed to a seven-day a week schedule of processing 2007 tax returns as they are received. This means that, even if the Congress were to base a 2008 tax rebate on the 2006 tax return file, the IRS would not be able to begin the actual processing of those rebates until the conclusion of the peak 2007 tax return filing season.

The IRS has a significant customer service call center that handles taxpayers' questions on a regular basis. Based on the 2001 experience, the IRS anticipates that a 2008 rebate will generate a substantial surge in calls to that center. In connection with a rebate, taxpayer service

representatives will need to be trained, and to have access to the requisite information to explain to callers how a particular rebate was calculated.

Social Security Administration

The SSA is currently in the middle of its filing season as well. In particular, the SSA must post 2007 FICA contribution information to individual accounts. Additionally, the SSA is expecting a significant increase in Social Security disability and retirement benefit applications attributable to worsening economic conditions and due to the fact that the first baby boomers are just turning age 62.

Wage withholding (FICA) tax information is provided to the SSA directly by employers, not individual employees. The SSA checks and processes these employer returns in a manner roughly analogous to how the IRS handles individual income tax returns. The IRS provides SECA (self-employment tax) information to the SSA from individuals' tax returns.

Historically, the SSA posts 77 percent of accepted W-2s from the prior calendar year by the end of April. The peak season generally concludes by June 1st. The remaining W-2s, and SECA contributions, are posted as they are accepted for filing by the SSA system; each year's records are not completely reconciled until near the end of the following year.

The SSA maintains a database of individual payroll tax records as well as a database of those receiving Social Security disability and retirement benefits. The SSA maintains electronic funds transfer information for some current Social Security benefit recipients.

During the course of every year, the SSA mails earnings history statements to individuals over the age of 25 who made payroll or SECA contributions in prior years and who are not receiving Social Security disability or retirement benefits. The SSA does *not* maintain a database of addresses for these millions of individuals. Instead, the SSA relies on the IRS to provide this information. In particular, the SSA queries the IRS each week for the addresses of roughly three million individuals who made contributions in prior years, so as to be able to mail each an annual earnings history statement. The IRS provides the requested addresses to the SSA from the IRS's master file of tax return filers. By law, the SSA does not retain those addresses after they have been used for purposes of mailing the annual statements.

Historically, the SSA has found that it cannot mail about nine percent of annual earnings history statements, because the IRS does not have an address for that contributor. In turn, many annual earnings history statements mailed by the SSA are returned as undeliverable, so that in a typical year, only about 85 percent of the potential universe of recipients of these statements actually receives them.

There are many good reasons that explain this significant attrition. For example, by spreading out its mailings over the course of a year, the SSA necessarily queries the IRS for addresses that might be up to one year old. In addition, the SSA attempts to mail earnings statements to individuals who made payroll or SECA contributions in the past, but who were not part of the workforce in the immediately preceding period. Nonetheless, this significant attrition is a useful reminder of the difficulties engendered for a population as mobile as that of the United States in using address information that is not absolutely current.

The system described above means that neither the SSA nor the IRS has any address file for individuals who made payroll or SECA contributions in a year, but who did not file tax returns. Moreover, the SSA does not have information regarding marital status, family size, and income other than wages.

Unlike the IRS, the SSA does not have any occasion to refund money to or audit individuals who make Social Security contributions. As a result, its calculation and payment systems are oriented entirely to Social Security recipients, not contributors. The SSA also has a limited customer service capability for fielding questions regarding cash rebates.

In sum, the SSA is well situated to make rebate payments to existing recipients of the benefit programs it administers. This includes both the SSI program (which provides benefits to some of America's lowest income individuals) and the much larger Social Security payment system to the elderly and disabled. The SSA does not have any special ability to process cash rebates to other individuals. Neither the IRS nor the SSA has addresses for those individuals who make Social Security contributions but who do not file income tax returns because their income levels are below the income tax filing thresholds.

4. Designing a tax-based rebate in light of administrative constraints

This section discusses four design choices in effectuating a tax-based cash rebate stimulus, in light of the information summarized earlier: (1) using income tax versus payroll tax rolls; (2) which tax base year to use; (3) how much time is required to develop the necessary systems; and (4) how much time is required to deliver the desired cash rebates.

Income tax rolls versus payroll tax rolls

One fundamental policy question is whether the income tax rolls or the payroll tax rolls can better reach the group that the Congress wishes to target for the tax-based cash rebate. This section does not address that policy issue, but rather focuses on the narrower issue of which agency has access to the most individuals, more complete information, more current information, and better options for payment methods.

The IRS system generally has records relating to a smaller pool of individuals than does the SSA. However, in practice the SSA has no incremental information concerning the roughly 33 million FICA tax contributors who do not file income tax returns, because all of the SSA's address information for these individuals is derived from the IRS. Moreover, only the income tax base permits policy makers to use filing status, marital status, family size, and the various subcomponents of income (e.g., earned income) in designing and targeting tax-based cash rebates. As discussed in further detail below, the availability of EFT account information is another primary benefit of using income tax information.

If the Congress wishes to relate the size of tax-based cash rebates to the total amount of taxes paid by individuals in 2007, meaning the sum of income tax liability and Social Security contributions, then an important administrative problem will be created, because, while the SSA will have processed and posted roughly 77 percent of 2007 W-2s by the end of April, individuals' FICA tax contributions are not reflected in the IRS's transaction file for the year

until much later in 2008. The only readily apparent solution to this would be to use 2006 data, but this in turn has other important negative administrative implications, as described below.

The SSA has the advantage of having a current system of distributing benefits, but this advantage would be limited to those currently receiving benefits. This suggests that the SSA could play an effective role in distributing tax-based cash rebates to SSI recipients (who are among America's lowest incomes) and to Social Security benefit recipients. In other cases, the IRS appears to have more current information and greater distribution capability, and the income tax base appears to offer the possibility of more refined targeting of benefits, should that be desired.

Which tax year is best?

In designing any tax-based cash rebate, the Congress must select a base year whose income tax returns can serve as the database for identifying recipients of the rebate and for calculating the amount payable to each such recipient (at least preliminarily). Depending on the policy goals of the Congress in targeting rebates, a case can be made to look to 2006 year income tax returns, 2007 year returns, and the 2007 year with a true-up in 2008 year returns as the basis for the cash rebate.

The advantage of the 2006 tax year is that the filing season is complete. By using the 2006 year as the base, the Congress could, should it wish to, make cash rebate payments available to any 2006 return filer, regardless of tax liability in that year, without causing an unwanted tax return filing behavioral response to the stimulus.

If, on the other hand, the Congress were to enact legislation in February 2008 that made rebates available to every individual who actually filed an income tax return in respect of 2007, or even every person who was required by law to file a return for 2007, then the JCT Staff would anticipate that a very large number of 2007 returns would be filed that otherwise would not have been filed. In this connection, it should be noted that the IRS does not ordinarily devote many resources to looking for cases of low-adjusted gross income returns that are filed in which income is improperly overstated. A large 2007 rebate conditioned on having a filing obligation, however, can be expected to induce just such behavior.

There do not appear to be any other advantages to using 2006 as the base year, and there are a number of important practical disadvantages in doing so. Because the IRS cannot actually process rebates until the peak 2007 tax return filing season is complete, there would be no gain in the timeliness with which refund checks are distributed by using 2006 rather than 2007 as the base year.

The U.S. population is mobile, and many taxpayers change their filing status or have changes to the amount of income that they earn over the course of two years. (JCT Staff estimates that, from one year to the next, approximately eight percent of taxpayers either change their filing status on account of marriage, divorce, and mortality or have other changes that result in no longer filing a tax return.) 2006 address information thus will be staler than 2007 information. The IRS can perform "address hygiene" to the 2006 file in parallel with the 2007

peak filing season, including updating the file from the US Postal Service's master change of address database, but the 2006 information will never be as accurate as the 2007 address file.

Similarly, the use of older taxpayer information will mean that the targeting of cash rebates to taxpayers in general will be less precise, as individuals' status changes from year to year. This problem in turn could be addressed by making the rebate a 2008 rebate, using the 2006 file simply as a preliminary distribution mechanism, and then offering a true-up on 2008 tax returns filed in 2009. Based on precedent, however, the true-up would be a one-way adjustment, so that taxpayers would emerge with the better of their 2006 or 2008 base-year entitlement. And any 2009 true-up probably would be viewed as falling outside the window of a timely cash stimulus.

The problems of mis-targeting through the use of stale data is particularly acute at lower income levels, as reflected in programs like the earned income tax credit, the composition of whose population is quite volatile. JCT Staff estimates, for example, that if tax year 2006 earned income credit eligibility were to be a criterion for receiving a rebate in 2008, as many as 44 percent of persons currently eligible for the earned income credit would not receive any rebate.

Finally, if a tax-based cash stimulus were to be based on 2006 returns, with or without a 2008 year true-up, then it would not be possible to use direct deposit to distribute the rebates. The IRS has advised us that 2006 EFT data is too unreliable at this point to use for significant cash payments, and there appears to be no practical way to quickly solicit new information without exposing the program to the risk of large amounts being misdirected through identity theft.

The advantages of basing a tax-based cash rebate on the 2007 tax year is that the relevant data are the freshest available, and that doing so will not delay the distribution of the rebate, since the IRS cannot begin that distribution in any event until the 2007 peak filing season is complete. The use of 2007 as the base year also allows EFT processing of roughly 40 million rebates, which effectively will shorten the overall rebate distribution process by five weeks or more. The 2007 address file also is more accurate than the 2006 file, which will allow current addresses to reach a larger percentage of the remaining taxpayers. Moreover, the ability to accurately target specific groups of taxpayers will be significantly increased.

The only practical disadvantage of using 2007 as the base year would arise if the design of the particular rebate program chosen were to encourage undesirable tax return filing behavior (for example, by taxpayers not required to file a return filing one simply to claim a rebate). In this connection, it is helpful that the standard IRS processing system for 2007 (and prior years) performs a number of important consistency and accuracy checks on the two principal refundable tax programs today: the earned income tax credit and the refundable portion of the child tax credit.

The advantage of using 2008 as the base year (that is, following the 2001 precedent and making rebate payments based on 2007 with a true-up on the 2008 tax return when filed in 2009) is that the program would be equitable. One argument against such a true-up mechanism is that it violates the goal of a timely stimulus and adds complexity; another is that it would add cost, if

the 2001 and 2003 “one-way” true-up model were followed, so that taxpayers are not required to pay back rebates to which in retrospect they were not entitled.

Regardless of the tax base year used, some taxpayers will be confused. In 2001, for example, Commissioner Rossotti wrote in a letter to the Chairman of the Senate Finance Committee that the “IRS will receive a large volume of additional phone calls due to people not understanding whether they can claim an additional credit on the 2001 return, wanting to know if they will receive the additional rebate, asking questions about when they will receive the additional rebate, needing help doing computations for the additional rebate, etc. We received 23.8 million telephone calls between July and September (2001) compared to 11.4 million during the same period last year.”⁹²

In conversations with the JCT Staff, senior representatives of the IRS have indicated that, while confusion will be unavoidable, they do not believe that enacting a well-designed rebate program would lead to unusual problems for the 2007 filing season, provided of course that whatever the Congress enacts is designed as a separate rebate calculated after the 2007 returns are filed. The IRS has stressed to us, however, that, because there will be confusion, simpler rebate calculations are better from a tax administration perspective.

Time required to develop systems for cash rebates

As noted earlier, the IRS has informed us that the IRS would need a minimum of 60 days from the date a tax-based cash stimulus is enacted to build and test their processing system for the rebate. The 60 day timeframe is an estimate and the true timeframe will be dependent on the complexity of the proposal being considered. The IRS has the ability to design and test a rebate mechanism while the 2007 tax year processing is ongoing. While the 2008 processing system would not be identical to that used in 2001 or 2003, the IRS would be able to draw on lessons learned from those experiences in developing the necessary system. In 2001, an important point was made by Commissioner Rossotti: “compression of analysis, testing, and production of complex programs poses very high risks of errors in issuing these refunds, such as taxpayers receiving incorrect amounts or notices with incorrect information.”⁹³

Also as noted earlier, the IRS has further informed us that it absolutely cannot begin the actual processing of cash rebate amounts prior to the conclusion of the 2007 tax year filing season some time in mid to late May 2008 (regardless of the base filing year chosen).

Time required to deliver cash rebates

As discussed previously, the IRS has informed us that it could not begin processing tax-based cash rebates prior to the conclusion of the peak 2007 tax return filing season, regardless of the base year chosen. The SSA should be able to distribute rebates to current beneficiaries more

⁹² Letter from Commissioner Charles O. Rosotti to the Honorable Charles E. Grassley dated October 19, 2001, Tax Analysts Document 2001-27234.

⁹³ *Ibid.*

quickly than that, but, as noted, those populations comprise only the SSI beneficiaries and the elderly and disabled receiving Social Security benefits.

In an ordinary year, the peak tax return filing season concludes at the end of May. In 2001, the first rebate checks were mailed in the third week of June, and the total distribution took about 10 weeks, due to check processing limitations at the FMS (whose capacity, we understand, remains roughly nine or ten million checks per week). It might be possible to compress the peak return tax filing season slightly, but it is important to remember in this regard that the regular personal income tax filing season brings in more than \$1 trillion of government revenues, a number that dwarfs any tax-based cash rebate under consideration. Moreover, the amount of income tax refunds paid by the US Treasury to individual taxpayers in connection with the regular filing season (some \$229 billion in respect of the 2006 tax year) also greatly exceeds any rebate under consideration. It is therefore vitally important that the integrity of the 2007 filing season not be compromised by any rebate program that might be adopted.

Once the processing begins, the actual distribution of rebates to individuals would be subject to any check processing limitations imposed by the FMS. Where available, the use of direct deposit information would greatly speed delivery of the stimulus to individuals and reduce the cost to the government of printing and mailing paper checks. Based on 40 million EFT accounts for the 2007 year, it should be possible to accelerate the delivery of a tax-based cash stimulus four or five weeks faster in 2008 than in 2001.